

**GOVERNMENT OF ANAMBRA  
STATE OF NIGERIA**

# **STATE WATER SUPPLY & SANITATION POLICY**

**Ministry Of Public Utilities, Water  
Resources And Community  
Development**

**Reprinted 2013.**





# Anambra State State Water Supply & Sanitation Policy

## FOREWORD

Water is a basic resource necessary for human survival and development. Anambra State is endowed with abundant rivers and underground water resources. Over the years, public water supply through the State Water Corporation had been non-existent due to mismanagement by previous successive administrations. The resultant neglect of the state public water supply infrastructure across the state led to a state of dysfunctional system and decay.

True to the belief of the present government in the ANIDS (Anambra Integrated Development Strategy), the programme of developing all sectors of the state economy simultaneously, serious efforts had been made to resuscitate all damaged and abandoned public water supply facilities in the state. New schemes are being developed to adequately meet the water supply needs of our people and achieve the MDGs on water supply and sanitation by 2015. The state is providing facilities that would provide water to more than 60% of our people before the end of the year.

Pursuant to this, the government, through the Ministry of Public Utilities and Water Resources has rehabilitated most of the damaged and dilapidated water schemes across the state so as to accommodate the growing demand for water supply by the urban and small town populations. We are mindful of the enormous financial involvement and the need to apply the resources of the state consciously and effectively by engaging the services and participation of the private sector. This approach is being vigorously pursued by inviting our foreign and local partners for the development of the water related infrastructure to ensure increased access to water supply in Onitsha, our commercial nerve centre, Awka, the capital city, Nnewi, and to other parts of the state.

The intervention and support of the European Union, the EU- WSSSRP under the 9th EDF in the state has been very remarkable and commendable. It laid the necessary foundation for the reform process in the sector. Anambra State understood the imperatives of the reform programme in general, and that of the EU WSSSRP on water supply in particular. The government has shown high degree of commitment in the implementation of the developmental programme in line with international best practices. This has ensured coordinated approach to efficient and sustainable water supply and sanitation service delivery. To ensure grassroot development through water supply and sanitation services, the government approved the establishment of Water Consumers Association (a community based group) across the state as part of the



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institutional framework and structural adjustment in the sector. The WCA formation has already created institutional environment where the citizens are active agents of development in their communities. The WCA manages the water schemes within their localities, carry out necessary repairs accountably and performs oversight functions on sanitation and hygiene promotion activities. This strategy engenders ownership, participation in the community-based water and sanitation facilities and shall bring financial empowerment in the respective small towns and rural areas in the state.

The Anambra State Water Supply and Sanitation Policy is one of the visible outcomes of the state reform initiatives meant to provide proper direction to the development of the water supply and sanitation sector in the state. Government shall continue to provide the necessary support to facilitate and drive the policy implementation process so as to achieve the multi-level impact of water supply which includes poverty reduction and sustainable development across the state.

The importance of this policy as an official document for moving the state forward in water supply and sanitation service delivery cannot be over-emphasized. With the launch of this water and sanitation policy, the document shall be the road map for water sector development in the state. My belief and projection is that Anambra State shall still meet the demand for the MDGs on water supply and sanitation before 2015. Our achievements on the ground, the on-going investments in the sector, and our current strategies in the urban and small towns shall bring this to pass.

**Mr. Peter Obi, CON.**

*Governor, Anambra State*





# Anambra State State Water Supply & Sanitation Policy

## PREFACE

Water is life. Access to safe and reliable water supply is key to development and poverty reduction. The State Water Supply and Sanitation policy is an instrument that provides direction towards the realization of an effective and efficient water supply and sanitation system in the state. The policy recognizes the separation of functions among the sector institutions and actors. The three major functions include: policy coordination, service delivery and service regulation. Anambra State has experienced very poor water supply implementation system in the past years as a result of uncoordinated sector activities, dysfunctional infrastructure, mismanagement, poor maintenance culture and lack of investment in the sector, all of which the present administration is assiduously addressing with every vigor.

Since 2001, public water supply in the state has been almost none-existent. The State Water Corporation (now Anambra State Urban Asset Holdings Corporation) that is the major operator of the public water supply infrastructure in the state had been dysfunctional and had failed in the provision of strategic water supply to urban centers.

Consequently, to fill this gap, the water supply sector in the state became dominated by small private service providers who supply water of doubtful quality with serious health implications. The need to provide potable water supply establishes quality control and regulatory framework to ensure standards, and enforce compliance by private operators for improved services delivery is still top on the priority scale of the government.

This administration has expressed concern and shown commitment for better performance in the sector and have virtually completed the restructuring of the water supply sector institutions. The government has approved the State Water Supply and Sanitation Policy, and the enactment of the state "Water Law" which is virtually accomplished. Through the Ministry of Public Utilities and Water Resources, a majority of the neglected urban water supply facilities are now being rehabilitated and new ones are being constructed to reposition the Anambra State Urban Asset Holdings Corporation (Water Corporation) for effective service delivery.

The overall objective of the State Water Supply and Sanitation Policy is to increase the access to safe, adequate and sustainable water supply and sanitation service to the people of Anambra State, and ensure poverty reduction, sustainable development, wealth creation and achievement of the Millennium Development Goals for Water Supply and Sanitation. In a nutshell the policy provides a coherent approach to addressing the problems identified in the sector. It will therefore help to put in perspective the way targets should be pursued and implemented over time to achieve the expected deliverables.

**Hon. Emeka Nwankwu**

Hon. Commissioner: Public Utilities and Water Resources





## ACKNOWLEDGMENTS

The water supply and sanitation policy is a landmark document and one of the measurable outcomes of the reform programme in the state, particularly on the water and sanitation sector. The document was developed from the zero draft policy under the auspices of the Anambra State Water Supply and Sanitation Sector Reform Programme (WSSSRP).

The domestication and development of the state WSS policy document was through a series of meetings, discussions, workshops and consultations with the key sector actors, and the wider stakeholders.

We are first of all grateful and thankful to the Almighty God for enabling all the actors and stakeholders to make painstaking efforts and contributions and for keeping us alive to be part of this development, and witness the launching and the implementation of this policy.

Our immense gratitude and appreciation goes to the Governor of Anambra State, His Excellency, Mr. Peter Obi, CON, for his amazing resourcefulness and sound understanding of the reform process. We are encouraged by the provision of all the necessary moral, political and financial support. This policy production is only one of the eloquent outcomes / successes of his effort in the reform process.

We are enormously grateful to the Hon. Commissioner for Public Utilities and Water Resources, Hon. Emeka Nwankwu, for his sound grasp and articulation of sector issues under his purview. We appreciate his promptings, tireless motivation, timely directives, and tenacious drive to getting things done including the development and production of this policy and the Water Law.

Appreciation is not complete without mentioning the State Coordinator EUWSSSRP, and the entire STU Consultants, for their ingenuity and effort in the EU programme and for setting Anambra State as the flag-ship on the 9th EDF programme: and to the staff of the WSSSRP and indeed the entire members of the State Programme Implementation Unit (SPIU), especially the State Authorizing Officer/Hon. Commissioner for Economic Planning, Prof. Chinyere Stella Okunna and her dedicated staff.

Permit me to mention the State Sector Technical Reform Committee (SSTRC) for their invaluable and selfless contributions: the Water Consumers Associations (WCAs) of various towns, the Water Sanitation and Hygiene (WASH) staff in the local governments, staff of the Rural Water and Sanitation Agency (RUWASSA), the State Water Corporation (AnSWC), the staff of the Ministry of Public Utilities and Water Resources and other line ministries that supported and contributed to the development and success of the State Water Supply and Sanitation Policy (SWSSP).

Mention must be made of the Director of Water Resources, Ezenwaji Leo, the focal person on the policy who was on the driver's seat in the facilitation and co-ordination of the sector policy development and other related documents.

I salute the zeal and commitment of the stakeholders for their immense co-operation which helped in the development of this first edition of the Anambra State Water Supply and Sanitation Policy.

**Chidi Onwudiwe**  
Permanent Secretary





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## HIGHLIGHTS ON ANAMBRA STATE THE INDUSTRIAL HEARTLAND OF IGBOLAND

- Anambra State: The Light of the Nation.
- Created: August 27th 1991
- Population: 4,182,0828 (2006 Census)
- Male Population: 2,174,641
- Female Population: 2,007,391
- Land Mass Area: 4,416 Sq Km
- Population Density: 1500 2000 per sq km
- Number of Local Governments: 21
- Number of Communities: 177
- Capital City: Awka
- Major Commercial Centres: Onitsha and Nnewi
- Language(s): Igbo & English
- Literacy Rate: About 70%
- Temperature: Average 30°C
- Rainfall: 152cm - 203cm
- Present Governor: H.E. Mr. Peter Obi. CON. (17th March 2006 to date)

## BACKGROUND

- ONE** of the most economically viable states in the nation, home of many iconic, legendary and noble personalities in the life of the nation
- Anambra State has tropical rain forest vegetation
  - Rain starts by April or May and ends late October or early November
  - It is populated by highly active and resourceful people.
  - Topography of Anambra State is generally undulating
  - The rock formation that outcrops the state includes: Ameki Formation, Nanka Sand, Lignite Formation (Ogwashi Formation), Imo Shale and Coastal Plain Sand. The Ameki Formation covers about 40% of the underground rock materials. The upper Ameki Formation comprises a sequence of unconsolidated sand.
  - The Nanka Sand: According to Orajaka and Egboka (1988), the sandstone unit is poorly Sorted, and poorly consolidated.
  - Erosion prone Areas: The poorly consolidated nature of Nanka Sand resulted in massive erosion in areas where the formation is exposed to the surface. This makes the soil susceptible to wear and water transport.
  - Geology and Mineral Resources: Anambra State lies partly on the Anambra Basin, and partly on the Niger Delta Basin. The Anambra Basin is known to hold massive reserves of gas and oil.





## DONOR AGENCIES AND CONTRIBUTIONS: EU WSSSRP

The European Commission and Federal Government of Nigeria agreed in December 2004 to support the implementation of the Water Supply and Sanitation Sector Reform Programme (WSSSRP) in Nigeria.

Overall Objectives: To contribute to poverty reduction, sustainable development and achieve the MDGs

Specific Objectives: To increase the access to safe, adequate and sustainable water and sanitation services in Anambra State.

### Expected Results

Improved water governance in the state

Improved water service delivery in urban areas

Improved sustainable water supply, sanitation and hygiene promotion in small towns and rural areas

### Focal Areas of WSSSRP

Support and help to finalize sector policies and develop strategies for implementation.

Support the state to review water legislation and draft a new water law.

Support the development of a sectoral medium term expenditure framework that reflects the sector strategy and establish a state monitoring and evaluation system

### Achievements / Contributions

The WSSSRP indeed contributed to the development of State Water and Sanitation Policy and the State Water Law and did help a great deal in achieving two of the four focal objectives. The development of the documents will help to improve the water governance in the state and improve service delivery. This has helped to achieve both the specific objectives and the overall objectives of the WSSSRP programmes and provides water supply and sanitation to the people in the medium term.

### EU-UNICEF

#### Focal Areas of UNICEF

Strengthen RUWASSA and WASH at local government areas, community based models for access to safe water and sanitation Project design for mainstreaming open defecation free(ODF) areas, School WASH approach replicated and scaled-up.

State wide strategies for community mobilization and hygiene

Support the LGAs to facilitate community level participatory development and management





# Anambra State State Water Supply & Sanitation Policy

## ABBREVIATIONS AND ACRONYMS

AMCOW	African Ministers' Council on Water
ANIDS	Anambra State Integrated Development Strategy
AU	African Union
BOT	Build, Operate and Transfer
BOOT	Build, Own, Operate and Transfer
CBO	Community Based Organization
CM	Community Management
DRA	Demand Responsive Approach
DFID	Department for International Development,
EC	European Commission
ECD	European Commission Delegation
EHC	Environmental Health Club
EIA	Environmental Impact Assessment
ESA	External Support Agency
EU	European Union
FME	Federal Ministry of Environment
FNH	Federal Ministry of Health
FMWR	Federal Ministry of Water Resources
GWP	Global Water Partnership
GIS	Geographical Information System
GPS	Global Positioning Systems
IDWSSD	International Drinking Water Supply and Sanitation Decade
IMF	International Monetary Fund
IWRM	Integrated Water Resources Management
JICA	Japanese International Corporation Agency
JMP	Joint Monitoring Programme for Water Supply and Sanitation Strategy
LEEDS	Local Economic Empowerment and Development
LF	Logical Framework
LFA	Logical Framework Approach
MDG	Millennium Development Goals
MIS	Management Information System
MOU	Memorandum of Understanding
MTEF	Medium Term Expenditure Framework
MTTR	Mean Time to Repair
M&E	Monitoring and Evaluation
NCWR	National Council on Water Resources
NIWRMC	Nigeria Integrated Water Resources Management Commission
NEEDS	National Economic Empowerment and Development Strategy
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organization
NCWR	National Council for Water Resources



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<b>SDWQ</b>	Nigerian Standard for Drinking Water Quality
<b>NWP</b>	National Water Policy
<b>NWRB</b>	National Water Resources Bill
<b>NWRI</b>	National Water Resources Institute
<b>NWRS</b>	National Water Resources Strategy
<b>NWSP</b>	National Water Sanitation Policy
<b>NWSSP</b>	National Water Supply and Sanitation Policy
<b>NWRM</b>	National Water Resources Management
<b>OPE</b>	Operational Programme Estimate
<b>OVI</b> s	Objectively Verifiable Indicators
<b>PAWS</b>	Partners for Water and Sanitation
<b>PI</b>	Performance Indicator
<b>RBDA</b>	River Basin Development Authority
<b>RBM</b>	Results Based Management
<b>RWSSI</b>	Rural Water Supply and Sanitation Initiative
<b>SAO</b>	State Authorizing Officer
<b>SEEDS</b>	State Economic Empowerment and Development Strategy
<b>SIMS</b>	Sanitation Information Management System
<b>SON</b>	Standard Organization of Nigeria
<b>SRIP</b>	Support to Reforming Institutions Programme
<b>STOWA</b>	Small Town Water Supply Agency
<b>SSRTC</b>	State Sector Reform Technical Committee
<b>SWB</b>	State Water Board
<b>ToR</b>	Terms of Reference
<b>TWRM</b>	Trans-boundary Water Resource Management
<b>UAHC</b>	Urban Asset Holding Corporations
<b>UWOC</b>	Urban Water Operating Companies (PSP)
<b>UK</b>	United Kingdom
<b>UNICEF</b>	United Nations International Children Emergency Fund
<b>UWSRP</b>	Urban Water Sector Reform Project
<b>VLOM</b>	Village Level Operation and Maintenance
<b>WASH</b>	Water, Sanitation, and Hygiene
<b>WASHCOM</b>	Water, Sanitation, and Hygiene Committee
<b>WASHIMS</b>	Water, Sanitation and Hygiene Information Management System
<b>WB</b>	World Bank
<b>WHO</b>	World Health Organization
<b>WIMAG</b>	Water Investment Mobilization and Application Guideline
<b>WIMS</b>	Water Information Management System
<b>WSP</b>	Water Services Providers
<b>WSS</b>	Water Supply and Sanitation
<b>WSSD</b>	World Summit on Sustainable Development
<b>WSSSRP</b>	Water Supply and Sanitation Sector Reform Programme
<b>WWC</b>	World Water Council





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## EXECUTIVE SUMMARY

The Water Supply and Sanitation Policy was developed when the existing level of service of water and sanitation in the state was far from satisfactory. There was an urgent need to improve the access to potable water supply and sanitation facilities and hence bring good governance to service delivery in the sector. Good governance of water resources is a critical issue here and a decisive element for successful change process and sustainability in service delivery. It is the challenge of making service delivery reliable, efficient, affordable and sustainable. It demands political will and support at the highest level. It also involves the development of the Water Policy, the Water Act (Law), Institutional and Regulatory Framework.

Good governance in water supply, sanitation and hygiene (WASH) services requires participatory approaches among stakeholders for development, and efficient and sustainable use of resources. Water resources refer to the supply of rain water, groundwater and surface water in a given area. The concept of "good governance" emerged as a model to compare ineffective economies, operations or political bodies with viable economic sector operations or political bodies. Participation by both men and women is the cornerstone of good governance. Good water governance will have profound impact on the livelihoods of urban, small towns and rural people and on their environmental sustainability.

The basic characteristics of good governance are met when:

- There is participation of all stakeholders to jointly identify their best interests and the most appropriate approach to reaching sustainable services
- Decisions are taken in terms of rules and regulations in a transparent manner, with good accountability.
- There is equity and inclusiveness of all members of society in development, particularly the most marginalized, with emphasis on ensuring that the interests of women and youth are protected.
- Fair legislation (rules) is implemented objectively with full protection of human rights
- Services are responsive so that the needs of consumers are addressed within a reasonable time period and in an efficient, effective, and affordable manner.

The International Monetary Fund declared in 1996 that "promoting good governance in all its aspects by ensuring the rule of law, improving the efficiency and accountability of the public sector, and tackling corruption - outlining these as essential elements of a framework within which economies can prosper."

Efficient water governance is predicated on basic reform principles which address three key areas and include-policy and legislative framework, institutional framework and





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decision making mechanism and regulation.

These principles were lacking hence there was structural and institutional weaknesses in the sector which may have contributed to the collapse of the system. The operation and maintenance of water infrastructure were either neglected or nonexistent. The level of ministerial oversight was also very weak. The edicts that set up water agencies gave wide and conflicting mandates. There was no policy and no institutional arrangement to define roles and duties.

The government was responsive to these basic needs and attracted the EU supported WSSSRP Programme in the state. With the entrance of the programme, the government gave all the necessary political and financial support by promptly paying the mandatory counterpart fund which ushered in the reform process.

The primary objective of the reform is to strengthen the state institutions, make them functional and build relevant capacities in the institutions to be able to manage and sustain the change process and create enabling environment.

The international development community clearly expressed the need for applying economic tools and principles to water supply and sanitation. The International Conference on Water and Environment, held in Dublin, Ireland in January 1992, concluded, among other things, that "water has an economic value in all its competing uses and should be recognized as an economic good" (ICWE, 1992).

The policy document is one of the major tangible outcomes of the reform programme on institutional framework in the state and was developed from the zero draft policy under the auspices of the Anambra State Water Supply Sanitation Sector Reform Programme (WSSSRP).

The domestication and development of the state document was through a series of meetings, discussions, workshops and consultations with the key sector actors and the wider stakeholders.

The guiding principles of the policy which are the reform elements, critical for the overall realization of the target of the sector were well entrenched. The principles serve as instruments for actualizing access to potable water supply, improved sanitation facilities, and hygiene education to 75% of our citizens by 2030. The reform elements include the following;-

- ❖ A new bottom-up demand-driven approach to water supply
- ❖ Decision making to be devolved to the lowest possible administrative level, e.g. the WCA
- ❖ Capital costs should be shared between the 3 levels of government and the benefiting community
- ❖ Government to focus more on facilitating, coordinating, planning, financing capital projects and development while service provision is to be carried out by



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- ❖ appropriate agencies, bodies and the water service providers
- ❖ The water sector needs to be regulated to protect the consumers / providers and to ensure its long term sustainability for service provision
- ❖ The private sector should be made to participate in this vital role of water service provision for greater efficiency and accountability
- ❖ The community involvement and ownership is considered a key element in the policy development and service sustainability
- ❖ Water Consumers Association (WCA) approved by the government and already formed in some communities will be responsible for managing the community based water supply and sanitation systems: WCAs in small towns, and WASCOMS in rural areas.
- ❖ Operation and maintenance (O&M) is identified as the hub of continued production of water supply. Closely related to O&M and system sustainability is the strategy for cost recovery and willingness to pay
- ❖ Finally, the demand responsive approach is a reform paradigm and entails that the benefitting community indicates interest in developmental process by expressly demanding and showing willingness to participate and pay for services. There should be involvement of the stakeholders in the projects being executed for them from planning to implementation stages
- ❖ The government shall provide the enabling environment by formulating the policy and facilitating necessary legislations such as the Water Act (Water Law), establish water regulatory outfit for equitable business environment, infrastructure and funding.
- ❖ The multiple user services approach in which service providers are encouraged to move beyond the traditional focus on water for domestic use and to look at small scale productive use at the homestead level is one example of bottom up approach towards the integrated water resources management.





# Anambra State State Water Supply & Sanitation Policy

## CHAPTER ONE

### 1. INTRODUCTION

#### 1.1 Background

The policy is a guiding document (in a reforming system) to streamline the institutional arrangement and improve the operations of the sector in line with the national policy and globally prevailing best practices.

One of the expected results of the reform is to improve the service delivery of water supply and sanitation in the state. The development of this WSS policy document for efficient service delivery required an extensive study of the historical development in the sector, the existing situation of water supply systems and the institutional structure for the delivery of the services. It also required an understanding of the global trend in the reform process, and finally the peculiar situation of Anambra State water supply status.

In Nigeria, efforts at addressing water supply and sanitation issues began with the outset of the International Drinking Water Supply and Sanitation Decade (IDWSSD, 1981-1990). 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 was the National Programme of Action (NPA) for the survival, protection and development of the Nigerian Child, which envisaged achievement of 100% coverage in water supply and sanitation by the year 2000. Initiatives that emerged during this 20-year period included among others the following:

- 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
- Intervention programme on Improved National access to Water Supply and Sanitation

Some of these programmes were also carried out in Anambra State. Despite these



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

- Most of these programmes and projects were interventionist, short-lived, pilot or demonstrative in nature.
- There has been no National Water Supply and Sanitation Policy to define the policy objectives, guidelines and targets for the entire sector.

The principles for the development of this policy were derived from the national documents and studies in the water supply and sanitation sector in Nigeria. Some of the documents that provided guidelines for the development of State Water and Sanitation Policy include the following:

- Review of the National Water Supply and Sanitation Policy
- The National Water Sanitation Policy
- The draft National Water Policy
- The draft Nigerian Water Bill (submitted to the National Assembly).
- The National Baseline Survey for Nigerian Urban Water Sector Reform Programme (NUWSRP)
- Institutional studies carried out by the Technical Unit (STU) of EU WSSSRP

## 1.1.1 The Policy Document

The Policy document is divided into chapters. Chapter one deals with the state context and starting with the geographical location of the state and the demography which gives insight into the geology, hydrogeology and the surface water hydrology of the state.

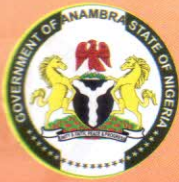
The water supply situation in the state was critically x- rayed as well as the supply demand gap and consequently the involvement of the private sector. The top down approach of government in the provision of service delivery and its weakness, the inadequate funding in the sector were major contributors to poor sector performance.

The second chapter looked at the former institutional arrangement that was flawed. The agencies had wide and conflicting roles, serving as both providers and regulators. Roles and responsibilities were not defined and there were little oversight functions. There was no ministry in charge of water resources, and no community based structures/institutions to implement the bottom up approach.

The need for policy was the issue in chapter three. This area is divided into seven broad sections depicting the tools for the implementation of service delivery in an integrated manner viz-

- Creation of the enabling environment. The enabling environment includes the investment tool and the policy which is the framework for other tools - the water bill and the implementation strategy.
- The building of appropriate institutions and building capacity within these institutions





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- The management tools which are applied to achieve efficient delivery of goods and services etc

The next chapter deals with the management instruments in dealing with service delivery. However, the chapter started looking at policy targets and policy statements. It dealt with policy statements and strategies. Some of the important terminologies and phrases which are elements of the reform for sustainable service delivery were dealt with in this chapter. They include: Demand Responsive Approach, Community Ownership and Management, Cost Recovery (the user pay principle), Sustainability Factors, Private Sector Involvement etc.

The Institutional framework on the next chapter is the most challenging considerations. The restructuring of the institutional framework posed a great challenge in the policy development. While the ministry was created to oversee the sector development, difficult decision was taken in restructuring the urban subsector institutions for efficient service delivery. Efforts were made to institutionalize a new approach in line with current best practices and in the interest of the state. The framework encompasses the governmental to non-governmental institutions. Sanitation and hygiene were not left out and are imperatives for healthy living in the state.

Other issues are cross cutting and include water quality, governance and management of water resources in integrated manner.

Finally, effort was made to ensure that the state document maintains consistency and in harmony with all the national policies and related national documents and tools such as the National Rural Water Supply Programme Strategic Framework, the Urban Water Supply Strategic Framework and the Water Investment, Mobilization and Application Guideline (WIMAG) to enable the state maximize benefits from national WSS programmes.

The policy will provide guidance and direction in the development of WSS in the state. It is also intended to provide key inputs into realization of the state's Economic and Empowerment Development Strategy (SEEDS) and give additional encouragement to External Support Agencies (ESA) - EU, DFID, UNICEF, WHO, UN -HABITAT over the commitment of the state to the reforming processes and institutions in the sector environment.

## 1.2 State Context

Anambra State was created during the state creation exercise of 1991. It is one of the 5 States in the South East Geo-political Zone and represents a strategic access to the rest of the South-East and South-South Zones of the Country. The people are Igbo by tribe and predominantly Christians. The state has a total estimated population of 4.2 million (2006 population figure) and a population density second only to Lagos State. The female



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population of 50.8% is only slightly above that of the male at 49.2%. About 62% of her population is estimated to live in the urban areas, a fast expanding proportion. The state recently designated 10 towns as urban in recognition of this. The result of urbanization is the emergence of urban slums since social facilities and infrastructure, water, roads, electricity, sanitation services are stretched to their limit. Major towns include: Awka the State Capital, Nnewi, Onitsha, Ekwulobia, Ihiala, etc.

## 1.3 Geographical Location

Anambra State lies north of the coastlands and delta region of Eastern Nigeria between latitude  $5^{\circ} 43''\text{N}$  and  $6^{\circ} 52''\text{N}$  and longitude  $6^{\circ} 25''\text{E}$  and  $7^{\circ} 16''\text{E}$ . It is bounded to the North by Kogi and Benue States, to the south by Imo and Abia States, to the east by Enugu State and to the West by River Niger and Delta State.

### 1.3.1 Demography

The current population of the state is about 4.5 million. Awka is the state capital. Besides Awka, Onitsha and Nnewi are two other metropolitan towns which are the economic power houses of the state. These are known and recognized all over Nigeria as centres of commercial activities and production. Other communities adjoining Onitsha are Nkpor, Obosi, Oba, Ogidi, and Nnobi. The adjoining cities within the Awka-Onitsha-Nnewi triangle are all growing rapidly to urban communities and are benefiting from overflows of economic activities along the Onitsha-Nnewi axis. The projected 2015 population of Anambra State is 5,425,149. In 2005, Anambra State's population comprised of (72.8%) urban, (25.2%) semi urban and (2%) rural. In 2015, the population will become (80.0%) urban, (18.6%) semi urban and (1.4%) rural.

### 1.3.2 Climate, Vegetation and Drainage

The climate is of the Guinea Savannah type with two distinct seasons; rainy and dry. The rainy season is marked by high rainfall with annual mean of 1800 mm. It begins around April and ends in November while the dry season covers the remaining months. The mean annual temperature is about  $27^{\circ}\text{C}$ . The annual rain is enough to ensure ample stockpile of fresh water in under-ground concrete tanks, particularly in local government areas where there are no surface water and perennial streams. The vegetation is the Guinea Savannah type. Anambra State is drained by the Niger and Anambra rivers. The watershed formed by the escarpment separates the Nkisi, Idemili, Ulas and Njaba rivers which flow directly to the Niger from the complex systems of the Mamu and Imo Rivers.





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## 1.4 Geology and Hydrogeology

Anambra State has the following main geological formations:

- **Alluvium Deposit:** this was deposited in the Quaternary and outcrops in the areas close to the Niger River and its tributaries' flood plain.  
**Alluvium** is loose, unconsolidated (not cemented together into a solid rock) soil or sediments, eroded, deposited, and reshaped by water in some form in a non-marine setting. Alluvium is typically made up of a variety of materials, including fine particles of silt and clay and larger particles of sand and gravel. When these loose alluvial materials are deposited and lithified/cemented into lithologic units, they could be called Alluvial Deposits.
- **Coastal Plain Sand:** this outcrops around the Ihiala area. It is whitish in colour and friable. The formation is very productive.
- **Nanka Sand (part of the Ameki Formation):** the formation forms part of a Cuesta with type locality seen at Nanka, Ekwulobia and Oko areas. The Nanka Formation comprises a thick sequence of unconsolidated sand. Ogbukagu described it as an elongated multi-coloured body of sand stretching about 150km in the direction of Northwest Southeast direction.
- **Bende-Ameki Formation:** the Ameki Cuesta runs through Awka into Orlu in Imo State. The formation was deposited during the Eocene regression. The formation consists of lower and upper beds of continental deposits. The lithology consists of alternating sequence of sandstone shale and argillaceous sandstone. The sand stone is moderately sorted medium grained. The upper parts of the formation are poorly consolidated. The formation outcrops at over 30% of the state and is very productive.
- **Lignite Formation:** this Formation was deposited during the transgression of the Eocene Miocene stage, about 15 million years ago. It outcrops in some parts of the state at Onitsha North, Idemili, and Nnewi Local Government Areas. The lithology consists of thick beds of sand, sandstone, clay and Lignite. The lignite presence was as a result of incomplete formation of coal and consists of stratified carbonaceous materials derived from vegetation. The thick sand body of the formation forms good productive aquifers.
- **Imo Shale Formation:** Deposited in the Tertiary era. The stage was Paleocene



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about 20 million years ago. The deposit was mainly marine shale with lithology consisting of clayey-shale that is blue-black in colour. The formation has a sandy facie called the Ebenebe Sandstone. This sand member is the Productive unit and occurs mainly in upper/shallow depth less than 100m.

## 1.4.1 Water Resources

Anambra State is drained principally by a number of rivers which include Niger and Anambra Rivers. Others are Idemili, Mamu, and Ulasi Rivers, Obizi, and Nkisi Streams etc. These rivers and streams with their attendant catchment basins drain into the River Niger.

Groundwater is the current source of water supply in the state (mainly from the unorganized private sector in the urban, small towns, and rural areas). There are currently more than 1,500 boreholes in the state. In areas where the groundwater resource is deeply seated, rain harvestation is the main strategy for all year water supply. This is the practice in most parts of Aguata LGA. The state has abundant water resources. The annual precipitation is about 3,000 mm. Rain falls for more than eight months of the year, between March and October. Many rivers are perennial flowing all year round and are important sources of drinking water and for irrigation. Groundwater quality is generally good except for iron occurrence in some areas. Efforts to develop water resources and provide adequate water supply in the years to come may have to surmount several challenges, including population pressure, watershed management problems, such as erosion/siltation with ecological consequences. One of the most needful areas remains the government response to the felt needs of the poor in urban and rural areas. The greatest impact will continue to be felt by the poor, who have the most limited access to water supply and sanitation. Apart from direct and indirect consumptions, water resources impacts almost all sectors of development. The importance of water cuts across sectors like agriculture irrigation, and food security, fisheries, health, hydropower, industrial production, recreation, navigation, environmental protection, the disposal and treatment of sewage, and industrial effluents. Indeed all the sectors of development require the use of water supply for diverse uses for the benefit and welfare of mankind.

## 1.4.2 Water Supply and Sanitation

The Water Supply and Sanitation sector provides services essential to life and human development. 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





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under-five mortality. The prevalence of diarrhoea is higher in the rural than in urban areas. 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. 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. About 40 million Nigerians are exposed to 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, 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 drive for poverty reduction in Nigeria in general and Anambra State in particular, recognizes water supply and sanitation as a key factor to the improved health of the state.

## 1.5 Situation of the State Water Supply and Sanitation in the State before the Policy

This section of the policy document is a summary review of the existing situation (prior to the development of this policy) with respect to Water Supply and Sanitation status, the supply - demand gap and challenges of WSS services in the state. The objective is to identify the main issues that need to be addressed in order to design appropriate policy statements, reforms, and strategies that will not only provide tools for faster amelioration of the current problems but will set a foundation for faster sustainable growth in WSS coverage.

### 1.5.1 Access to Water Supply Services

Lack of data was one of the most critical challenges faced by the state. Monitoring and evaluation of the existing water supply and sanitation activities hardly take place on regular basis to provide planning data. In-fact there is very little data available to inform the drafting of the policy and its implementation strategy. However, the then Federal ministry of Agriculture and Water Resources (FMAWR) appointed a consultant to conduct a baseline survey of urban WSS in the state. The findings of these study showed that access to safe water from public water supply in all the Local governments of the state ranges from as low as 0.2% to about 40%. It is estimated that the average access (in terms of distance to, quality and quantity) to potable water is not more than 20% across the state.



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## 1.5.2 Condition of the Government Water Supply Infrastructure

Recent study showed that the state water supply infrastructure is very poor. Out of 62 systems owned by the State Water Corporation, only a couple of them are functional. Water supply infrastructure identified under the Federal government baseline survey for Anambra State comprised 497 motorized boreholes, 72 hand pump boreholes and 7 surface water schemes. The total installed capacity excluding the Nkisi Surface Water Scheme which serves Onitsha-North, Onitsha-South, Idemili-North, Idemili-South and Ogbaru LGAs is 30,795m<sup>3</sup>/day. The Greater Onitsha Water Supply Scheme (Nkisi Water Works) is being considered for concession and rehabilitation. It was destroyed by massive siltation at the intake facilities station. The Greater Onitsha Water Scheme was the live wire of the then Anambra State Water Corporation, generating over 90% of its revenue.

## 1.6 Capital Funding and Development of the Sector

The sector has been poorly funded. According to the Anambra SEEDS document, it was estimated that over N8.0 billion was required to improve the state water supply between the year 2004 and 2007. In reality, less than 20% of that estimate was actually spent in the sector during the period. Meanwhile water demand continues to increase annually due to increase in population and economic activities in the state, painfully the water coverage has actually continued to decline during the period.

### 1.6.1 Supply-Demand Gap

It has been estimated that the demand for water in Anambra State in the year 2005 was 213,952m<sup>3</sup>/day. This will rise to 278,313m<sup>3</sup>/day in 2015. The percentage of water available to the state or the theoretical percentage of water supply against demand was also found to be 7.2%. This means that on a state wide basis only 7.2% of safe water requirement was met in 2005 or was available in Anambra State and this is very poor. Clearly then, extensive work would have to be embarked upon to find new water supply sources, establish new water schemes and rehabilitate old schemes to close up the demand gap.

## 1.7 Water Supply Promoters in the State

According to the recent baseline survey on WSS conducted by the Federal Government in 2005, under the Urban Water Sector Reform, the Federal Government of Nigeria sponsored the construction of 102 small water schemes or 17.7% of the total schemes in the state and 28 of these schemes or 27.5% are functional. The state government constructed and developed 52 of the schemes which equal 9% of the total and only 13 of them or 25% are functional. Local governments in Anambra State promoted 8 or 1.4% of



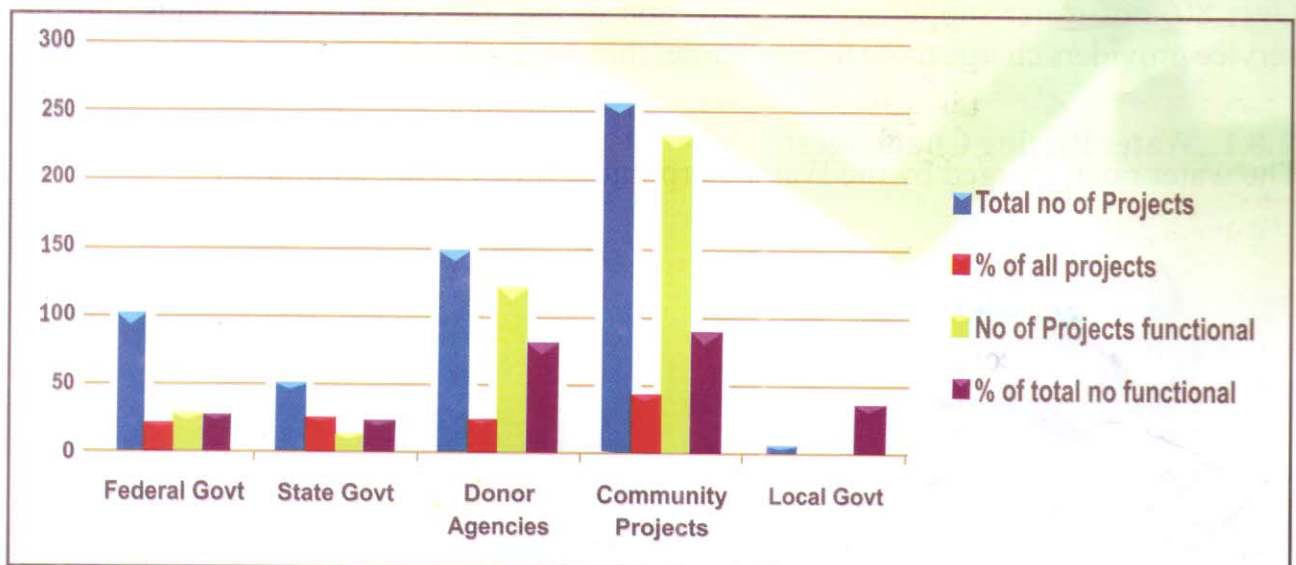
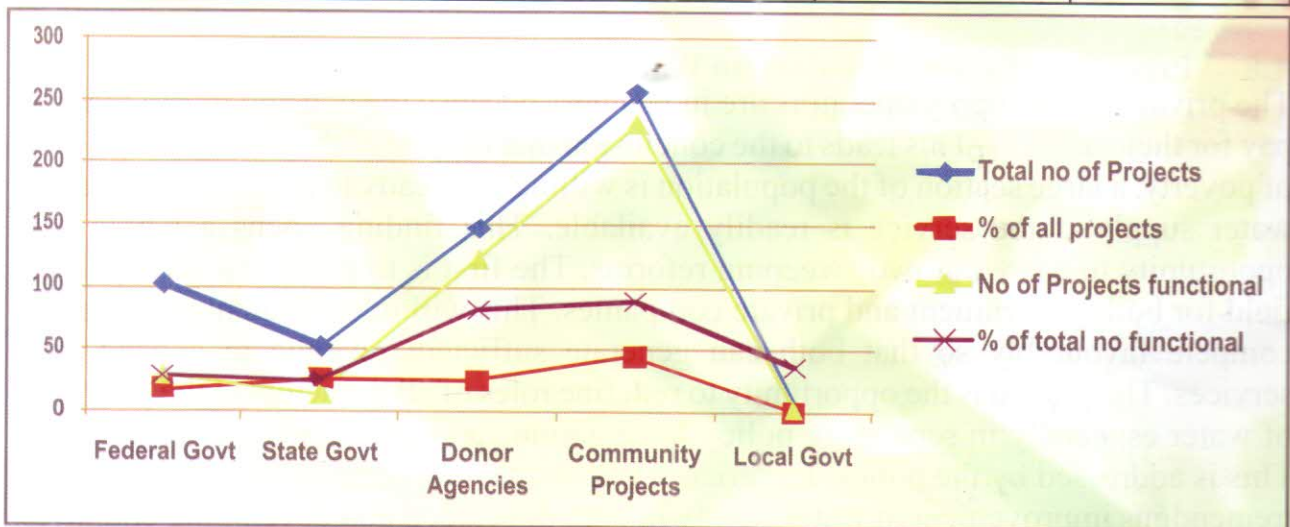


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all the schemes in the state and 3 of these or 37.5% are functional.  
The performances are expressed on graphical format

**Table 1**

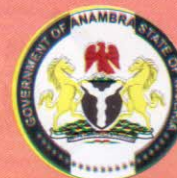
	Total no of projects	% of all projects	No of projects functional	% of total no functional
Federal Govt.	102	17.7	28	27.5
State Govt.	52	25.6	13	25
Donor Agencies	148	25.6	122	82.4
Community projects	257	44.5	231	89.9
Local Govt.	8	1.4	3	37



**Fig 1**



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Donors promoted 148 schemes or 25.6% of the total number of schemes of which 122 or 82.4% were functional. Members of the various communities promote 257 schemes or 44.5% of all schemes out of which 231 or 89.9% were functional. Together Donors and members of the various communities provided 405 schemes or 70.2% of all schemes out of which 353 or 87.2% were functional, (Table 1). Donors and communities constitute the backbone of potable water supply in Anambra and the functionality of these schemes is better than that of other providers. The LGAs appear not to be seriously involved in water supply in this state. Clearly then, the most sustainable way forward is for the government to take the path of developing water supply in the state through community managed systems. This will best be done through government strong financial support to community water supply projects.

## 1.8 Private Sector Participation on Water Supply

The private water supply operators are in business because the consumers are ready to pay for their services. This leads to the conclusion that in spite of the reported high level of poverty, a large section of the population is willing and ready to pay higher prices for water supply if the service is readily available. This finding opens a whole new opportunity to carry out two sweeping reforms. The first is to provide a level playing field for both government and private companies. This will release latent potentials to compete favourably so that both can generate sufficient revenue to expand their services. The second is the opportunity to redefine roles of all the actors in the provision of water especially in separating policy formulation service delivery and regulations. This is addressed by the policy. Experience has shown that reforms like this brought a tremendous improvement in water supply in both developed and developing countries. Over 80% of water supply service provision in the state is in private hands and the service providers charge more than ten times the expected public sector charging rates.

### 1.8.1 Water Pricing Challenges:

The water rates charged by the Water Corporation in 1998 are as follows:





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	<b>Metered Supply</b>	<b>Tariff</b>
a	M <sub>1</sub> – Domestic (4.5k/lit)	45/1000 Lit
b	M <sub>2</sub> - Industrial/ Commercial (8.5/eu)	85/1000 Lit
c	Big Hotels, Bakeries, Breweries, Block Moulding, Car washing, Laundry services, Banks, Filling Stations	85/1000 Lit
d	Small Hotels, Hospitals, Maternities	65/1000 Lit

## 1.8.2 Cost Recovery & Sustainability

From the tariff approved for the State Water Corporation, it is evident that the domestic connection charges were lower than the production cost by almost 50% while the ANSWC was required to produce and sell water in a manner that should cover its operational cost. When a utility earns less revenue than its expenses in a particular year, it runs short of funds to properly run its services. This would lead to lower water production and low quality of service. The resultant effect is the erosion of the consumers' willingness to pay. The utility will then have even less revenue to operate in the following year. The vicious cycle will lead to continued deterioration of service delivery. This policy will address this problem by suggesting a dynamic tariff system.

## 1.8.3 Cross Subsidy and Access to WSS Services

The poor in Anambra State do not have water connections in their houses. Those connected are mostly those that can afford to pay higher price. Instead, they are benefitting from government subvention originally intended to assist the poor gain access to the service. Furthermore the poor are the ones that purchase water from vendors and tanker operators at exorbitant rates. The alternative is for them to get water from contaminated sources that will eventually make them sick. Sickness leads to low human productivity which in-turn increases poverty. This policy document must address this injustice and lack of equity. Flat subsidy is being advocated in urban slums of the state.

## 1.9 Water Demand Management Challenges

### 1.9.1 Design and Application of Appropriate Tariff

Sufficient data on production and the cost of water supply for urban areas are not available to costing and projection. This was perhaps because the major water treatment plant has been out of operation for a number of years. It was not clear what the guiding



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principles were for setting tariff that would generate revenue lower than production cost. "Appropriate Water Tariff" is a tariff structure that provides revenue that would sustain the water system. It actually refers to the water rates and tariff structure that take into account the following issues:

- The tariff allowed the water supply system to have resource coverage maintenance. Consumers were able and willing to pay.
- Collecting water from other sources will mean they would spend more money.
- The tariff took cognisance of the poor who may be denied access to clean water if the rates were too high.
- The tariff was set so as to be acceptable by the people and the government.

## 1.9.2 Unaccounted-for Water

Unaccounted-for water refers to water losses in the form of system leakages in the distribution network (which includes physical losses due to pipe bursts and leakages). It also includes loss through illegal connections poor billing, and weak tariff structure. Unaccounted-for water has not been assessed due to non-availability of water in the network.

## 1.10 Other Problems Facing the State WSS Sector

The following problems are found to be the major causes of inadequate water supply and sanitation in the state

- Poor coordination and oversight function
- Top-down supply driven approach, rather than demand induced response
- There was no coordinating body and because of this, planning activities were "reactive" rather than "proactive" until the setting up of the new Ministry of Public Utilities, Water Resources and Community Development in August 2008. There was no central agency to develop policy direction of government"

The very strong community structure and vibrant private sector, for which the state is well known, was not exploited in developing an efficient Water Supply and Sanitation Delivery System for the people.

## 1.11 Institutional Arrangements With Roles And Responsibilities Before The Policy

There are four government institutions and two non-governmental institutions involved in water supply and sanitation in Anambra State. The governmental institutions are:

## 1.12 Ministry of Public Utilities and Water Resources (MPUWR)

The Ministry of Public Utilities and Water Resources (MPUWR) is currently responsible for the management and control of water resources in the state. It also





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supervises the state water supply agencies. The ministry implements the state's policies on water resources and also supervises the State Water Supply Agencies. Other roles and responsibilities include developing strategies for implementation of government policies on rural development, improving standard of living of rural dwellers through provision of water supply and sanitation.

## **1.13 Anambra State Water Corporation (ANSWC)**

The Anambra State Water Corporation (ANSWC) was established by Edict No.3 of 7th May 1999. The main function of the corporation was to supply and manage water supply in the whole of the state (including urban, semi-urban and rural water supply). It was established to develop, manage, control, provide, conserve and distribute water in the state for public, domestic and industrial purposes. It has powers to enter into contracts or other agreements for the purpose of expedient performance of its function.

The other functions of the corporation also included setting standards relative to water supply in collaboration with the Federal Ministry responsible for water resources, issuance of licenses for boreholes and monitoring water quality in the state. Analysis carried out showed that the ANSWC has a total staff strength of 752 with 207 pensioners as at September 2005. As at the year 2006, ANSWC had 12 Zonal Offices covering the twenty one LGAs of Anambra State for managing their water schemes. Of the 62 water schemes operated by ANSWC, 58 (93.5%) were non functional while only 4 (6.5%) were functional.

The record is indeed very disturbing and had been an issue of great concern. Even more disastrous for ANSWC is the collapse of the Greater Onitsha Water Supply Scheme since 2001. When in operation, the scheme provided 90% of ANSWC's internally generated funds. With only four borehole schemes in a state with 177 autonomous communities, public water supply is almost non-existent in Anambra State. A major thrust is needed to fund the investment needed to reverse the pitiful situation.

### **1.13.1 The Anambra Rural Water Supply and Sanitation Agency (AnRUWASSA)**

The Anambra State Rural Water Supply and Sanitation Agency (ANS-RUWASSA) was formed by the Edict of July 9, 1996 which came into effect on April 22, 1996. The agency is responsible for the provision of rural water supply, supporting the local government and communities in the development and management of rural water supply.

It was a Water and Sanitation (WATSAN) Project in 1991 and later became an Agency by an Edict in July 1996. The agency is responsible for rural water supply and sanitation in the state. Its role includes provision of potable water to rural communities in the state, improving the hygiene behaviour and ensuring improved sanitation coverage in rural



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communities, assisting local governments in taking inventory of existing water supply infrastructures, their state of repair, use and maintenance, establishing and maintaining capacity for drilling works in rural communities, organizing the training of persons at the community level for maintenance of hand pumps.

Other roles include training local government staff to be able to maintain hand-dug wells, and operate manual rigs. The Agency trains sanitation artisans, community based hygiene officers, and carries out sanitation and hygiene education programmes. They also assist local governments in constructing low cost latrines such as SANPLAT, Ventilated Improved Pit (VIP) latrines etc in strategic places.

## **1.14 Local Government WASH Units.**

These are responsible for the development and management of rural water supply, community mobilization and management of community water supply.

## **1.15 The Non-Governmental Institutions include;-**

- WCA: in the small towns, water supply and sanitation facilities will be managed by the community based Water Consumers Association.
- WASHCOMS: in the rural areas water supply schemes will be owned and operated by community based entities called the Water Sanitation and Hygiene Committees (WASHCOMs)
- External Support Agencies (UNICEF, UNDP, DFID, EU, etc)

## **1.6 Inadequacies and Shortcomings of the Existing Institutional Arrangement**

The institutional arrangement was poor. There were no clearly defined objectives, roles and responsibilities for the agencies. Where these existed, they are based on edicts which were conflicting and tend to result in institutional gridlock with other agencies performing same functions most of which are duplicated.





# Anambra State State Water Supply & Sanitation Policy

## CHAPTER TWO

### 2. NEED FOR THE POLICY

#### 2.1 Water Governance

The United Nations World Water Development Report states that "there is water for everyone". The problem we face is one of governance; that is harnessing and equitable sharing of this resource, while ensuring the sustainability of natural ecosystem. "

That could also be the case in Anambra State. Water supply sources have not been scarce, but water supply was badly handled. Attempt to manage water wisely was frequently derogated through operational inefficiency, overlapping institutional responsibilities, poor funding and lack of managerial accountability, appropriate legislature and its enforcement. Water governance is the set of systems that control decision making of water management. Good governance of water supply, sanitation and hygiene services is a critical issue and a decisive element for sustainability in service delivery.

Efficient and sustainable use of water requires participatory approaches among stakeholders and must therefore address three key areas which includes the following:-

- i. Policy and Legislative Framework: this involves the setting of goals, application of the management instruments, etc, and ensures water supply for social and economic development.
- ii. Institutional Framework: the institutional systems are necessary for water management which facilitates participation of stakeholders in a transparent, accountable and equitable manner.
- iii. Decision Making Mechanism and Regulation: this ensures the optimal use of resources, sustainable development and ecological sustainability.

The comprehensive water supply and sanitation policy became imperative in order to set an acceptable stage for sector governance and development. It also serves as instrument for delivering service in line with the current practices to bring about the integrated water resources development and management in the state.

The policy came at a time when the level of water supply and sanitation in the state was deplorable. Improving Water supply and sanitation coverage became one of the most important priorities of the state government. One of the fundamental objectives of the policy is to bring reform to institutional roles and responsibilities for better water governance.

#### 2.2 Institutional Framework

This is primarily the organizational arrangement of institutions involved in sector



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operations and governance. The framework further defines strategies and programmes that the sector must implement. The institutional framework however, looks beyond organizations and their operations and takes into account the policy, legal and regulatory environment that support the delivery of effective and efficient services which are the ultimate objectives of any reform process.

The policy document defines the roles of resource managers, service providers, regulators, the roles of private sector, local authorities, Civil Society Organizations. (CSOs) Community Based Organizations (CBOs) and other water sector stakeholders: All these form part of the overall institutional framework.

## **2.3 Enabling Environment**

One of the primary impacts of the policy will be the creation of the enabling environment for the implementation of the policy principles. This conducive working environment is created by the policy, legislature and financing structure. An articulate policy provides principles and objectives for managing water resources and water service delivery within a framework of overall development objectives. Neither the public sector nor the private sector can deliver water services efficiently in the absence of an enabling environment. Without reform, restructuring, and the creation of the enabling environment, the present attempt at providing water supply services may also fail. One of the key enabling environments is to encourage and institutionalize private/public partnership in the service provision.

## **2.4 Legislative and Legal Instruments**

Legislative framework sets the rules to follow in order to achieve policy objectives and goals. One of the main duties here is the development of the Water Act/Law. The law covers the ownership of water schemes, the use of permit, operation and maintenance and the regulatory norms. Also necessary is the need to repeal and reform the existing legislation and edicts with the development of the State Water Supply and Sanitation Policy and enactment of the water law.

## **2.5 Financing and Incentive Structure**

A component of the enabling environment is the financing and incentive structure that deals with the allocation of financial resources to meet the water needs. The financing needs of the water sector are huge and water projects tend to be capital intensive and require investment policy with financing options.

To pull the state from the very low service delivery in urban and regional water supply and redress the errors of the past will cost billions of Naira. Without huge financial cash injection in urban water development, the state will still find herself at a low range in the





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scale of urban water supply and sanitation reform service delivery. However due to the huge investment required, government alone cannot provide all fund for the provision of safe, and sufficient water for all. Public/Private investment and donor supports are needed.

## **2.6 Human and Capacity Building**

Capacity building or human resources development involves the upgrading of the existing skills and bringing understanding to all other levels of capacities – public decision makers, water professionals, regulatory bodies and other bodies like civil society groups.

Government shall ensure that sector institutions are appropriately and properly staffed and that the members of staff are adequately equipped and motivated. Training (manpower development) shall be conducted through workshops, seminars, short and long courses, and on-the-job training for officers and men.

The application of the policy development is necessary to bring an overall improvement of service delivery in the water supply and sanitation sector. It requires good knowledge of the management instruments

## **2.7 Water Resources Assessment**

A primary aspect of this is a good understanding of resources and the needs in water resources assessment, through a base line study.

This assessment starts with the collection of baseline data on hydrological, physiological, demographic, and socio-economic domains. This will enable development in the sector to be modeled in line with the integrated water resources management (IWRM) principles. A very important concept here is the demand management. It is a process of using water more efficiently by balancing supply and demand and requires the following:

- Improved efficiency of use
- Recycling and use
- Improved efficiency of supply

Demand management application will work with good social change instruments. The instruments encourage a water oriented civil society and advocates prudent behavioral change in the water use. Other important instruments are the economic instrument and regulatory instruments.

## **2.8 Infrastructural Development**

Infrastructural development is an important factor of economic growth. To be able to achieve the adequate level of service, the infrastructure should be well developed. The



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infrastructural build up should be effected by the government, private sectors and donor agencies.

Infrastructure technically refers to the technical structures that support a society such as roads, water supply systems, power-grids and telecommunication infrastructures.

These facilities are necessary for the production of goods and services, and are the basic installations for any operations.

The water management infrastructure includes the system of tools, equipment and buildings that form a framework for service delivery. There is a high level of infrastructural decay and dilapidation in the urban water supply systems. These need to be re-constructed/rehabilitated.

## **2.9 Other sustainability factors**

The state government has embarked on a massive construction/rehabilitation of some small town (regional) water supply and sanitation systems across the state as a matter of priority. For the reform to take root, the rehabilitation will be accompanied by a good structure of operation and maintenance system. This is strongly emphasized in the policy.

Lack of operation and maintenance was one of the banes of the dysfunctional water schemes. This aspect of the reform and indeed all aspects of the policy are necessary to ensure sustainable growth and development of the service delivery in the state.





# Anambra State State Water Supply & Sanitation Policy

## CHAPTER THREE

### 3 THE POLICY

This Policy is the result of wide consultative efforts through stakeholders' meetings, seminars and workshops in the state

It is the statement of intentions and of preferred programme of activity that will produce the desired outcome to the investment being made in the water and sanitation sector. It is a document that defines our objectives and how to achieve them. It is also the desire and demand of our development partners as an indication of commitment to the reform process.

#### 3.1 The Vision

A state with sustainable, uninterrupted, adequate, safe and affordable water Supply where citizens are sanitarily responsible and environmentally friendly is the general objective. A place with reduced morbidity and motility rates, increases productivity and generally promotes human development. This scenario when achieved will set the state on a path of sustainable growth and development.

#### 3.2 The Objectives

The main objectives of the Anambra State Water Supply and Sanitation Policy shall be:

- i) Establishment of good governance in the water and sanitation sector in the state, the local government, and at the community levels.
- ii) to provide guidance and direction in institutional, economic and legal reforms
- iii) improved access to safe water supply and adequate sanitation in an affordable and sustainable way for all the people of Anambra State

#### The Specific Objectives are:

- a. To make clean, potable water accessible and affordable to every citizen of the state
- b. To have a clean environment
- c. To reduce the incidence of water borne diseases like cholera and diarrhoea

#### 3.3 The policy Targets

Based on the baseline data discussed in the previous chapter, the average coverage at 2000 = 20%, coverage in 2007 = 28%, and target coverage for 2030 = 100%. The expected coverage is interpolated using linear regression and the result is shown below.



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**3.4.1 Table 3 Water Supply Coverage Targets:**

	2010 (%)	2011 (%)	2013 (%)	2020 (%)	2030 (%)
Urban	40	45	51	63	75
Small Town	55	58	62	65	80
Rural	20	40	46	70	100

The specific targets have been indicated. Setting specific targets for improvement in the water supply and sanitation sector for Anambra State requires knowledge on how quickly the state could move from where it is now, to where it wants to get to, in 2030 and beyond... The state government believes that access to water and sanitation is a fundamental human need, and therefore, a basic right.

The expected basic level of service for the rural setting is an all year round supply of 30 litres of potable water per person per day within 250m of residential area, and shall be reliable. Higher levels of services are believed to be achievable with conventional, metered, fully pressured house connections with flush toilets and internal bathing facilities in urban centres between 2020 and 2030.

### 3.4.2 Sanitation Coverage Targets:

Achievement of the set sanitation targets depends greatly on community participation and funding. In order therefore to realize the under-listed targets, all tiers of government shall appropriate and release a separate vote for water sanitation; amount equivalent to not less than 10% of their annual appropriation for water supply to implement sanitation programmes if sanitation is to achieve the set targets.

**SANITATION COVERAGE TARGET**

**Table 4**

	2010 (%)	2011 (%)	2013 (%)	2020 (%)	2030 (%)
Urban	55	60	65	72	100
Small Town	30	35	40	42	98
Rural	20	30	35	40	95





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## 3.5 Consumption Standards:

### 3.5.1 Urban:

120 Litres/cap/day Systems shall have full reticulation and consumer connections

### 3.5.2 Semi-Urban or small Town:

These are settlements with population between 5,000 to 20,000 and having a fair measure of social infrastructure and some level of economic activity. The consumption standard should be 60 Litres/cap/day. Systems may have reticulation, and or full house connections as determined by the beneficiaries.

### Rural Settlements:

For settlements with population up to 5,000 the consumption standard should be 30 litres per capita per day, within 250 metres of the community, serving 250-500 people per water point

## 3.6 Fundamental Principles and Guiding Philosophies for the WSS Policy

The National WSS (the National Water Supply and Sanitation) Policy, the draft National Water Bill and other policy implementation tools like the Water Investment, Mobilization and Application Guideline (WIMAG), the Urban Water Sector Regulatory Framework, the Urban Water Supply Regulatory Framework, the Rural Water Supply and Sanitation, National Programme Strategic Framework, (etc) have been prepared based on some universally accepted principles and guiding philosophies which have led to the development of sustainable Water Supply and Sanitation Services. Some of these principles and guiding philosophies are in line with the current thinking of the federal and Anambra State governments as set out in the National Economic Empowerment and Development Strategy (NEEDS) and State Economic Empowerment and Development Strategy, (SEEDS), the Anambra State Integrated Development Strategy, (ANIDS). Others are based on current trends in the water and sanitation sector designed to improve service delivery.

Policy Principles:

- a. Sustainable access to safe and affordable water and sanitation is a human right. The people of Anambra State are going through a difficult period of poor water supply and sanitation.
- b. The Anambra State government views the water supply situation in the state as very critical and now considers water supply and sanitation as its priority area.



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Government considers urgent rehabilitation of the existing water supply systems in all urban areas and setting up of effective and efficient management systems as a necessity. UN Agencies, World Bank, USAID, JICA, DFID, ED and many other External Support Agencies are committed to assisting Nigeria to reform and improve its WSS situation and the Anambra State government wants to be actively involved.

- a. Public participation on issues that border on their own welfare brings about accountability and efficiency in the delivery of service to them. This leads to a reliable and effective service system. Separation of policy and regulatory functions from service provision has universally been accepted as one of the efficient ways to accelerate improvement in water supply and sanitation delivery.
- b. Cost recovery is the foundation of sustainable service delivery but innovative strategies are needed to ensure that the poor is not denied access.
- c. Involvement of consumers (especially in rural and semi-urban water supply) in the delivery of service to them enhances accountability, transparency and sustainability.
- d. Governments generally do not have enough resources to meet with all the competing demand of services. Consequently, resources must be pooled from all sources including all tiers of government-private Sectors, NGO and the benefiting communities to increase water supply delivery.
- e. The current WSS provision is mostly "supply driven" as against demand driven, and there is the need to begin to address this problem in urban, semi urban and rural areas. Those not getting water supply from public systems often pay much more for water which is in most cases of questionable quality. This has to change. Consumers are willing to pay for water if a reliable level of service is provided (this is demonstrated by the fact that many consumers purchase their water from private providers).
- f. Every capable person in Anambra State will contribute to the management of their water supply systems in a sustainable way either through payment of water rates or through some form of community contribution. Government should gradually disengage in funding the operation and maintenance of community owned small town and rural systems to enable it to concentrate on capital





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development of WSS projects.

- g. Water Quality surveillance will be introduced through the establishment of a regulatory agency and shall apply the National Drinking Water Quality Standards for its implementation

## **For Urban Water Supply, the following will be observed:**

- i. Water supply is an economic good. This applies especially in urban areas and will be considered as such. Water supply to the poor should be guaranteed through carefully designed arrangements especially in designing tariff policies and government support
- ii. All urban water supply systems must work on cost recovery principles while ensuring effective, efficient and sustainable service delivery.
- iii. Autonomy of service providers shall be guaranteed
- iv. Privatization of the service shall be encouraged through appropriate regulatory reforms that will separate service provision, policy and regulation and encourage private investment.

## **With regards to rural and small town water supply:**

- i. Water supply provision should be demand driven.
- ii. The community has shown a desire to get involved in the management of water supply schemes, especially through their local community development associations, thus provision of water supply needs to be community based with the communities being on the driver's seat from the project inception up to the management of completed schemes.
- iii. Communities need to be mobilized, trained and motivated to actively participate in developing their water and sanitation facilities and eventually own the systems.
- iv. Water supply infrastructure development needs to involve a cost sharing arrangement between the federal government, the state and the local governments in a coordinated and effective manner.
- v. Autonomy of water and sanitation providers shall be considered.

## **With regards to Sanitation:**

- i. Various options of safe low cost household excreta disposal will be studied with low cost replicable systems promoted.
- ii. Hygiene education promotion in schools to ensure healthy growth of children.
- iii. Sanitation centres have not been introduced in rural areas and there is a need to do that.



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- iv. Sanitation and hygiene go hand-in-hand with water supply, and the policy should address these issues. Women and children will be put at the centre-stage thus promoting better sanitation and hygiene practices.

## **POLICY STATEMENTS (REFORM PRINCIPLES)**

The strategies to be adopted in addressing policy issues, which are reform principles are stated below.

### **3.7 Governance**

Water governance systems are critical to achieving sustainable development, particularly since water is key to development. Water governance needs to achieve a balance between socio-economic development and ecological sustainability. More effective water governance needs to start with good policy and legislative frameworks that ensure sufficient water for social and economic development, involving an equitable access to potable water, and water resources that are protected against over exploitation so as to preserve the resource for the present and future use. Good governance of water supply, sanitation and hygiene services therefore requires participatory approach among stakeholders for efficient and sustainable management. Water supply, sanitation and hygiene services can therefore be achieved if the stakeholders, including the most vulnerable in society, have a say in key decisions and where access is equitable and fair.

### **3.8 Access to water supply:**

Every person in Anambra State shall have right and equal access to safe and reliable water supply.

### **3.9 Minimum standards of supply:**

All water supply systems in Anambra State shall supply water that meets or exceeds safe water quality standards of the Nigerian Standard of Drinking Water Quality. In terms of quantity, all water supply systems in the state shall supply safe water in quantities that meet or exceed the minimum quantity standards prescribed by the regulatory body.

### **3.10 Sustainability, Pricing and Cost Recovery:**

To ensure long term sustainability, government will promote and ensure that any urban water supply in the state must be made to generate sufficient internal revenue to pay for all operational and maintenance costs and costs for eventual replacement.

### **3.1 Demand Management:**

Government will put mechanisms in place to manage the available water supply in an





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equitable and sustainable manner to all users without discrimination.

### **3.12 Community Involvement:**

Community involvement in any service intended for them should ensure transparency so as to promote sustainability. Thus, right from the development stage, the management of the system should be carried out based on a participatory approach which should involve the users, planners and policy makers at all levels, and decisions should be made at the lowest appropriate level.

### **3.13 The role of government:**

Government shall gradually disengage in direct involvement in the management and provision of water service and focus in policy development, coordination of sector activities, supervision of capital works, monitoring and capital financing of the sector

### **3.14 Serving the poor:**

Government will support setting up a sustainable mechanism which will ensure that the poor segment of the state's population have equal access to available water supply.

### **3.15 Involvement of the private sector:**

Government recognizes the contribution of the private sector in water supply in the state and will liberalise the water supply sector in urban areas to enable the sector get involved in all aspects of the provision of water in the state.

### **3.16 Regulatory Framework:**

Government will eventually separate policy and regulatory functions from service provision to encourage and regulate public/private partnership so as to accelerate improvement in water supply and sanitation delivery

### **3.17 The role of women:**

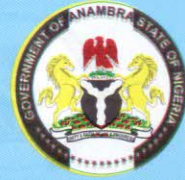
Women shall not only have equal right as men in all activities but will be encouraged to take opportunities that may arise in the sector reform.

### **3.18 Human Resource Development:**

Government recognizes that widespread enhancement of knowledge and skills' required to have an effective and sustainable water sector and shall therefore make human resource development and capacity building in the sector a high priority



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### **3.19 Monitoring and Evaluation:**

Government shall institutionalize monitoring and evaluation of activities in the water sector to track progress of changes and to make necessary adjustments required to achieve the desired outcomes.

### **3.20 Management Information System (MIS):**

Government shall institutionalize data gathering and information management to provide necessary data for planning purposes

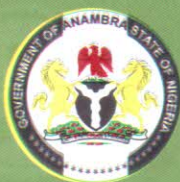
### **3.21 Sanitation and hygiene:**

Government considers Sanitation and Hygiene as integral components of improved health through better water supply and will ensure that they go hand in hand with all water supply planning and projects.

### **3.22 Environmental protection:**

Because water is inextricably linked with the environment, government shall ensure that water services will be managed to minimize any adverse environmental impacts and conversely water sources will be protected from degradation by polluting effluents from any source including industrial and agricultural developments, on-site sanitation facilities and other quarters.





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## CHAPTER FOUR

### 4 THE POLICY STRATEGIES (REFORM PRINCIPLES)

#### 4.1 Water Governance

Governance is about the process by which decisions are made and implemented. Water governance is the set of systems that control decision making of management and water service delivery.

Good governance of water supply, sanitation and hygiene services therefore requires participatory approaches among stakeholders for efficient and sustainable use resources. The concept of "good governance" often emerges as a model to compare ineffective economies, operations or political bodies with viable economies, sector operations and political bodies. Efficient water governance is predicated on basic reform principles which address the key area of policy and legislative framework which protects the resources and ensures water for social and economic development.

An effective water governance shall of necessity start with good policy, legislative and institutional frameworks that will deliver the resource. This will ensure sufficient water for social and economic development and that water resources are protected against over exploitation so that there is water for both the environment and the future use. Institutions involved in water management must facilitate participation by water users in a climate of trust, where there is joint responsibility for protecting and controlling water resources in an open and transparent manner.

#### 4.2 Access to Water Supply

Water is a basic requirement for human life. We need water to stay alive and maintain basic health and sanitation. We need it to grow our food and to maintain economic development.

Every citizen of the state shall have right and equal access to safe and reliable water supply, delivered through pipe-lines or supply from a hand pump operated bore or improved open-well that has been confirmed through testing and meets minimum quality and quantity standards. For a rural dweller, the allocation of water is 30 litres per person per day and served within about 250 metres from the user and serving about 250 to 500 persons.

Water is essential for human life and enabling access to safe and reliable water supply to all persons in the state is a key development policy of the government. The strategy to achieving this policy statement hinges on the following:

- All water supply systems in the State shall supply water that meets or exceeds safe



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water quality standards of the Nigerian Drinking Water Quality Standard.

- The quality of water supplied from all water supply systems in the state shall be monitored on a regular basis by the Ministry of Water Resources in conjunction with the Ministry of Health and the regulator in accordance with procedures established at the federal level.
- A regulatory body will be established to ensure that all water supply systems in the state delivers safe water in quantities and qualities that meet or exceed the minimum quantity and standards.
- Safe water is one that meets or exceeds the minimum water quality standards as established by the Nigeria Standard for Drinking Water (NSDW) and enforced in the state by the appropriate regulatory body.
- The level of service of a particular water supply system should reflect the demands of the community and their willingness to pay for it.

Available statistics equally shows that access to safe water supply and sanitation in Anambra State is 57.4% and 70.6%, respectively (MICS 3, 2007). However, RUWASSA did a pre-intervention survey in five ED - focal LGAs of Ogbaru, Nnewi-North, Idemili-North, Anambra-West and Aguata LGAs which shows the percentage access to be 41.2% and 30.5%, respectively.

### **4.3 Demand management (Water User Efficiency)**

Water resources management is about matching the supply of water with the demand of water. The traditional way to deal with an increasing demand is by increasing supply and this is referred to as the supply-side management-infrastructural approach.

Water demand management is the management approach that aims to conserve water controlling demand. Water demand management is the adaptation and implementation of a strategy by a body / agency or consumer to influence the water and usage of water in order to meet the following objectives: economic efficiency, social development, social equity, environmental protection, inability of water supply and services.

These are indications that the supply-side approach may soon reach its limit due to the following;

- i. Provision of water infrastructure is capital intensive, and resource to provide every needed facility is limited because of other competing needs.
- ii. No government provides all the necessary funds for new works due to scare resources.
- iii. In Anambra State, capital investment on water may have its limits too.

There is need to begin the application of this principle of demand management. The primary objectives of demand management is to rationalize and control water use,





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reduce waste and increase efficiency of use and equity in view of limited supplies. The tools that may be applied to achieve this are:-

- a. **Economic tools:** This applies the concepts of cost recovery. This ensures that every one contributes to the running of a water scheme by paying regularly for Water collected or connected. Paying the due tariff for this utility will make the users to apply control, since the more one uses, the more he pays.
- b. **The legislative and institutional tools:** This consists of the rules and organizational arrangements for managing water use and water demand, and includes water rights, priority of use, role and authority of the water regulating, water pricing and licensing.
- c. **Awareness raising and capacity building tool:** These instruments seek to manage water demand by increasing the awareness of end users and raising their capacity to rationalize water demand and use. Awareness campaigns, extension service and specialized workshop are some of the tools for this purpose. Therefore the demand management may be achieved in the state through the application of measures such as tariff regulation, use of some technological options, economic and social incentives.

The water challenges that we may face in future can include any of the following

- a. Social challenges (population growth, demand growth and poverty);
- b. Economic challenges (water tariff reform, privatization, small capital market Subsidies, etc.;
- c. Environmental challenges (water quality deterioration);

Managing water as an economic good is an important way of achieving efficient equitable use, and of encouraging conservation and protection of water resource. Water is a scarce and valuable resource that needs to be properly managed and conserved. This includes water in the supply system and water within the consumer's premises. Water should be delivered and utilized efficiently to minimize waste and leakages. Methods to be employed may include but not limited to:

- leakage reduction
- system and consumer metering
- tariff measures
- reduction or elimination of illegal connections
- consumer education on water conservation including education of school-age children



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Optimal utilization of any installed capacity is the essence of this approach. Old schemes should be rehabilitated while constructing new ones.

Finally, water demand management should be understood within the framework of the integrated water resources management, which is a process that promotes the coordinated development and management of water, land and related resources in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.

#### **4.4 Demand Responsive Approaches (DRA)**

The Demand Responsiveness includes measures that encourage communities and groups to determine and drive the development processes in their communities. Community leaders are expected henceforth to declare interest and show commitment to achieving their felt needs from the government. This is one of the key elements of the reform process. It is the capacity of a community to identify needs within the community and make demands that may bring solution to the problem. Invariably, this will result in participation by the LGAs and communities self-selecting themselves through meeting minimal compliance criteria (MCC) for participation. This is predicated on strong community management. Our communities are known for their self reliance and strong internal ability to organize self help projects. This antecedent shows that our communities have capacity for decision making, and ability to identify and articulate needs. The key characteristics of DRA can be summarized as follows:

- Collective decision making at the lowest appropriate level. Government plays a facilitative role, sets clear policies and strategies, encourages broad stakeholder consultation and facilitates capacity building and learning;
- Ability of the community to identify and articulate need, and make demand for solution. An adequate flow of information is provided to the community, and procedures are adopted for facilitating collective decision and action within the community.

DRA will, by its very definition, exclude those who cannot easily articulate demand who are unable to contribute towards an improved service.

However, every community in the state will be encouraged to articulate a project and be prepared to fund the project with minimum government assistance. Demand-driven approach shall be a leading concept for project consideration, support and implementation of water systems in the communities.

#### **4.5 Community Ownership and Management**

- Community management is about the communities making strategic decisions as





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to which service they want and of what level they want it. It includes also how they will pay for it. Within the community, the Water Consumers Association (WCA) shall be the organ for water service delivery. This role shall be instituted in the constitution of the town Unions.

- Government recognizes that some community-managed water supply schemes in the State had sustained functionality. It is believed that the involvement of communities in water supply management increases the prospect of accountability and transparency.
- Government also recognizes the existence of effective town union structure in the communities. The effective and sustained water supply and sanitation service delivery shall be anchored on effective town union support and management through the WCA. Consequently, government should handover/transfer the water and sanitation facilities to the host communities for effective management. They should also sign a memorandum of understanding with the Community involved for that purpose.

## 4.5.1 Policy Statements

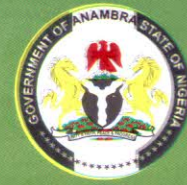
- Every community shall establish WCA for the water supply and sanitation facilities in the community for effective management and sustainability
- Demand for establishment of water and sanitation facilities in communities shall originate from the community based on demand driven approach
- Every community shall contribute a certain percentage of the cost of water and sanitation capital projects to ensure community involvement and participation.
- The cost shall be shared between the state government, LGA, and the community
- Every community shall take effective ownership of water and sanitation facilities in their area.
- Town unions shall sensitize community members on the need to safeguard water and sanitation facilities in their area and co-ordinate the activities of the WCAs
- Communities shall keep good records and account of tariff collection and usage for accountability and transparency and people shall pay for their water
- All consumers in the area of a water facility shall be proportionately represented in the WCA including adequate representation of women and the youth. For larger regional systems, the WCAs may also have representation from communities and Government.

## 4.5.2 Benefits of Community Management: (CM)

- a. **Empowerment:** For many organizations, and particularly the NGO, one of the underlying aims of CM is broader community empowerment and self



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improvement. Water supply projects are often seen as the entry point into building up the capacity of the communities.

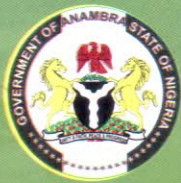
- b. **Efficiency:** CM also serves a utilitarian function and is viewed as a means of increasing the efficiency of service delivery.
- c. **Sustainability:** One of the aims of CM is to guarantee the sustainability of water system services. The principal argument in this case is that by being in control of the process of service delivery, communities will have a vested interest in seeing that the water service delivery and its commensurate benefits continue indefinitely.
- d. **Participation:** For effective CM to be in place, a cross-section of the community must participate in the development process; there must be broad community support for the implementation of CM models. Community participation must continue indefinitely.
- e. **Control:** The community must be in direct or indirect control over the operation and management of its own water supply system where control is understood to mean the ability to make strategic decisions about the process, from the design phase to long term operation and management.
- f. **Ownership:** The government may sign an MOD with host communities of existing water schemes transferring the schemes to them. Government may decide to privatize the more complex systems or form regional WCA. Ownership by the user community is a critical element in commitment of community schemes.
- g. **Cost sharing:** Closely linked to the question of ownership is the need for Contribution to the costs of construction of new capital projects.

## 4.6 Capital Funding and Sector Development.

### 4.6.1 Cost Sharing

The water and sanitation sector in the state had been under funded. Successive governments had failed to appropriate sufficient fund for water supply and sanitation delivery. Government had been the sole financier of public water supply systems. There was no private sector involvement. Since the government cannot entirely provide the





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funding, private sector involvement is imperative.

The cornerstone for the strategy for funding capital projects in Urban, Small Town and Rural Areas shall be by contribution and cost sharing by three tiers of government. Capital investment involving the federal government in water supply to the communities shall be done through a cost sharing arrangement between the community, the local government and the state government and Federal Government as shown below.

## Sector Capital investment Funding Formula

Cost Sharing For Capital Projects In The State

Cost sharing formula is further proposed for state owned projects, small towns and rural areas in which the federal government is not involved. The cost sharing formula shall be between the state government, the government and the communities.

Formula Below:

Rural water projects: State 25%, Local Govt. 20%, Community 5%.

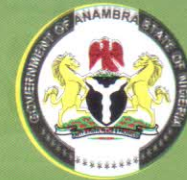
Small town water projects: State 30%, Local Govt. 15%, Community 5%.

Urban works: State 60%, Local Govt. 10%. (Fig 7)

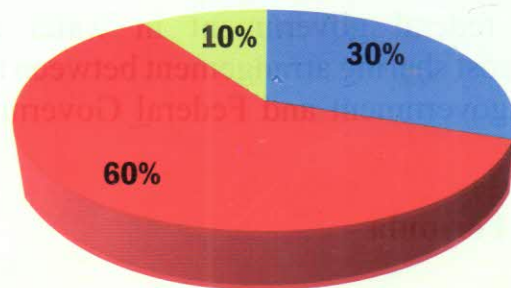
Sector Capital Investment Funding Formula			
Sub Sector Type of cost	Urban	Semi-Urban (small town)	Rural
New Schemes	30% Federal 60% State 10% LGA	50% Federal 30% State 15% LGA 5% community	50% Federal 25% State 20% LGA 5% community
Recurring Capital	Complex, but mainly tariffs (some subsidy on domestic side)	Some tariff input from commercial consumers, the rest is state subsidy	100% state
Operation and maintenance	100% Tariff	100% community (tariff or others)	10% State 20% LGA 70% community



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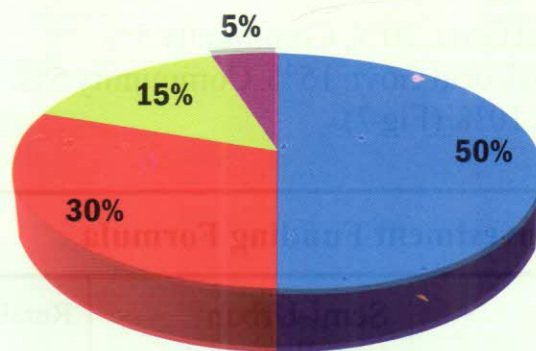


## New Schemes Funding (Urban)



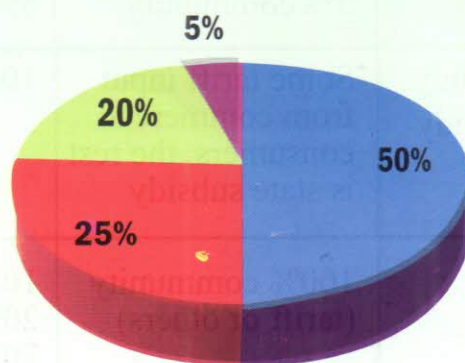
- Federal Govt.
- State Govt.
- Local Govt.

## New Schemes Funding (Small Town)



- Federal Govt.
- State Govt.
- Local Govt.
- Communities

## New Schemes Funding (Rural)



- Federal Govt.
- State Govt.
- Local Govt.
- Communities





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## Other funding Mechanisms

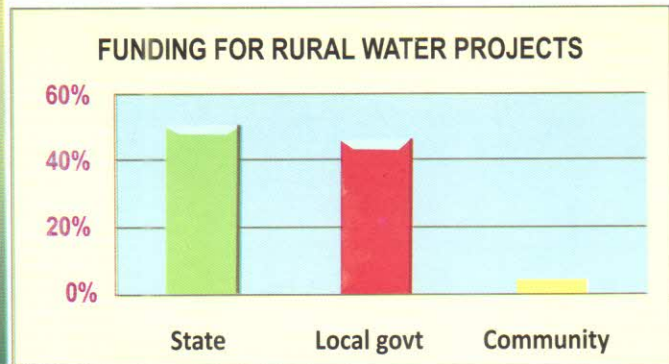
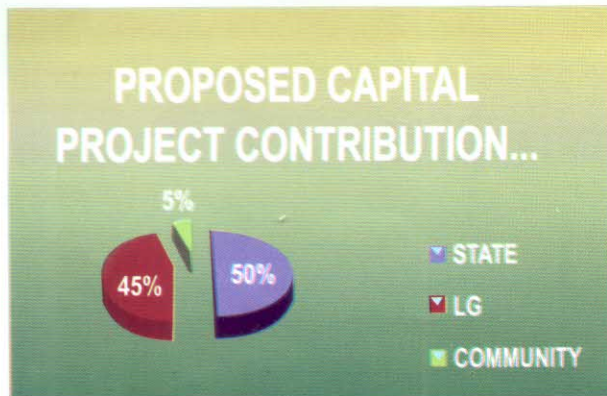
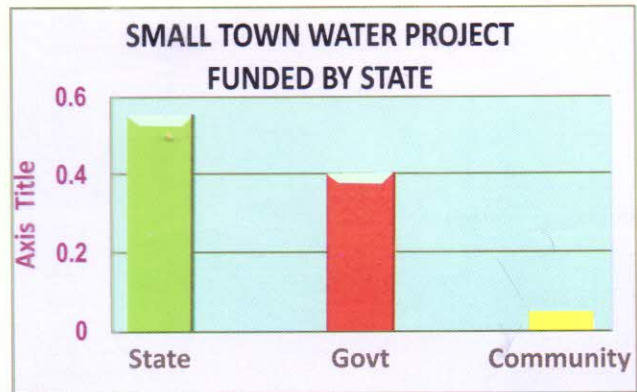
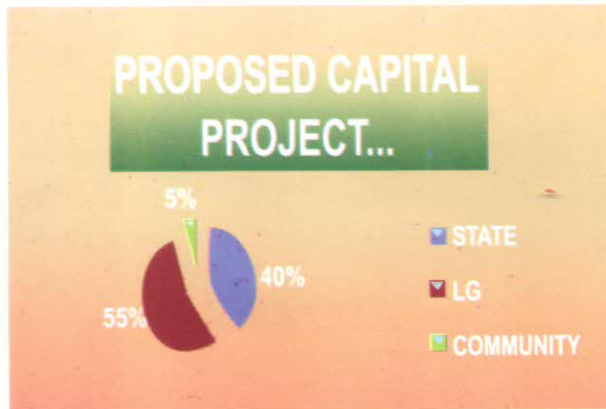
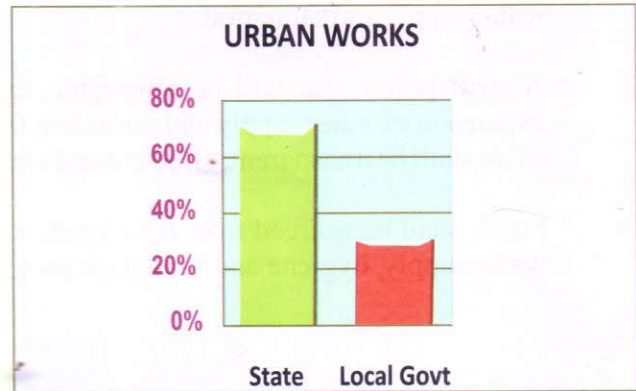
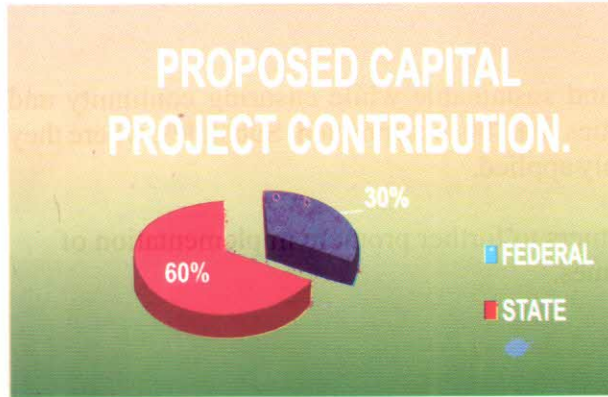
- A. Arrangement for funding in water supply and sanitation projects in rural, semi-urban (small towns) and urban areas shall be clearly and equitably spelt out.
- B. Government shall appropriate a minimum of 15% of annual budget with timely release for water supply and sanitation.
- C. A tariff policy that will be affordable, fair, and sustainable while ensuring continuity and expansion of water supply and sanitation facilities shall be incorporated. Subsidies, where they exist, shall be transparent, effective and equitably applied.
- D. Funds shall be sourced from development partners to further promote implementation of water supply, hygiene and sanitation programmes.



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**Fig: Proposed capital contributions in the state**



Pie charts

Bar Charts  
Fig 6





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## 4.7 Addressing the Past Error in Funding

To pull the state from the low service delivery in urban and regional water supply and redress the errors of the past will cost billions of naira. Without huge financial injection in urban and small town water development, the state will still find herself at a lower range in the scale of adequate water supply and sanitation delivery. Huge investment is required to generate the desired level of safe and sufficient water supply for all. The government alone cannot afford the financial invest required for the provision of the necessary infrastructure, particularly in the urban subsector. Public/private arrangement and donor supports are needed. Anambra State is still scaled low on improved water supply coverage in the country. This trend needs to be reversed and redressed by devoting and dedicating about 20% of state annual budget to water supply and sanitation. Better funding will also enable the state to meet up with the benchmarking standards of our development partners, external support agencies. Above that, improved water supply will alleviate poverty and promote wealth creation through water supply in urban, small town and rural areas.

## 4.8 Pricing for Water

This is the amount which we need to pay to maintain standard and steady supply water. It also represents the amount charged either by a government agency or a community based groups, who own water outfits. Water is now regarded as economic good. The provision and delivery of water is a serious business. It costs money to construct and maintain infrastructure for water supply systems. Since this resource is scarce, and there is limited fund to produce enough water and maintain the systems, communities and people must therefore pay for water supplied to them.

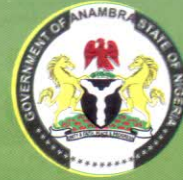
- In community projects, the WCA shall set the price for a given measure of water supply, but in consultation with the community leaders.
- For urban and small town schemes, the water agency - or service provider shall propose tariff based upon a methodology issued by the regulator and submits same for consideration and approval.
- The price to be set shall be enough to generate revenue for full operation and maintenance of the project(s) without being unduly exploitative on the people.

## 4.9 Investment and Sector Master Plan

A state wide water supply and sanitation sector development plan with a capital investment component is necessary to help access the needs which will help to close the gaps in terms of supply of needs in different local governments. Baseline surveys shall be taken to determine what exists. This will help the state to achieve programme goals and objectives. Without an investment plan, it would be difficult to make reasonable



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budgetary allocation and monitor the required resources for bridging the gap of the unserved population. The investment plan includes the costs of water supply and sanitation facilities to be constructed and the recurrent costs for establishing and running the agencies and departments responsible for water supply. From this, the state master plan will be developed.

Action plans will be developed for the implementation of phases of the sector planning and shall be built into the annual budget. The state action plan shall be prepared by each sub sector of the urban, small town and the rural areas, and finalized by the Ministry in charge of Water Resources.

## **4.10 Data Gathering and Information Management System**

Government recognizes the lack of reliable data, and this is one of the most critical challenges faced by the sector. Good supervision of the projects is a pre-requisite for the collection of reliable data. Monitoring and evaluation of the existing water supply and sanitation hardly takes place on regular basis. Therefore there is very little data available to inform the drafting of any future policy on water and sanitation and its implementation strategy. Reliable data will provide information on functionality of the water systems, their distribution and coverage. Also necessary is the monitoring of the underground water table, and understanding the impact of supply on downstream users.

### **4.10.1 Purpose of Information Management System**

The purpose of the State Information Management System (IMS) on water supply, sanitation and hygiene is to provide complete record and accurate data on the present situation on WASH in the state. This is very vital for planning and development of the sector. The data is updated by monitoring and evaluation of the projects and services in the state. This shall be fed to the national WASH database. Relevant information shall be provided to the water services institutions, stakeholders, consumers and other members of the public. The water services institution and consumers shall also furnish information to the state information system through the normal channel.

### **Policy Statements**

- Adequate and reliable data should be collected on all sector projects. Consequently, projects shall be well supervised by the staff and accurate data obtained
- There shall be established in the Ministry of Water Resources a data base unit for data gathering and management of information on water supply, sanitation, and hygiene.
- Communities shall provide information on water usage, tariff, number of





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functional and non functional water and sanitation facilities in their areas through the LGA to the Ministry in Charge of Water Resources.

- Government shall institutionalize monitoring and evaluation in the water sector to track progress of changes and to make necessary adjustment required to achieve the desired outcomes.
- Government shall cooperate with the federal government in the national monitoring and evaluation of water supply and sanitation Government shall institutionalize data gathering and information management to provide necessary data for long-term planning purposes and preparation for investment planning.
- Government shall establish water supply and sanitation data bank
- The WCA shall report any borehole drilling activity to the LGA governing their area to the ministry.
- Other information or data collected by the regulatory commission should also be shared with the Ministry for Water Resources.

#### 4.11 Planning:

Planning is worked out procedure that enables one achieve the desired objective. It is a means of avoiding the trap of working extremely hard, but achieving little: a tool which helps to achieve the maximum effect from a given effort.

Government shall institutionalize data gathering and information management to provide necessary data for long-term planning purposes. The planning phase in any project cycle involves:

- I The development of a planning matrix, determination of assumptions, risks, and activities, formulation of indicators, estimation of financial and human resources needed, and the development of a chronogram (for timing of activities ).
- ii Planning cycle involves the analysis of the situation the SWOT analysis which sets the stage for performance targets. The matrix includes the analysis of strengths, weaknesses, opportunities and threats.
- iii Establishment of goals and strategy to reach the goal. A strategy must be set around the priorities (targets), the purpose of the initiatives, its value and its goals.
- iv Establishment of objectives along the way to achieve the goals.
- v Assigning responsibilities as well as the time lines for project design, implementation and evaluation of the performance.



vi Monitoring the implementation of the plan.

Planning is necessary in every aspect of water supply and sanitation provisions. Baseline studies are to be taken across the state to enable officers and experts develop an investment plan for the state.

There is need to have information on groundwater status of the state to be able to determine the rate of utilization and recharge rate of the productive aquifers. Over extraction of the ground water resources and pollution of the ground water is a possibility and so there should be a system to monitor ground water across the state and generate data which on analysis would establish characteristics and trends that would be used in planning exercise. Planning also involves the roles and responsibilities of the institutional framework. The bottom up model emphasizes planning from the WCA level, upstream to the LGA level and then to the state level. This Ministry in charge of Water Resources shall be the repository of the blue print for the planning and development of water resources and the integrated water resources management in the state. The exit/sustainability plan should be done early in the project to enable managers decide what outputs might be worth sustaining after the end of any project, and the sustainability issues that should be addressed during the project. Investment planning shall be carried at all local government areas to get the baseline situation in the communities.

#### **4.12 Cost Recovery**

This is the tendency to recover all of the costs associated with a water system, programme or service to ensure long-term sustainability. To be sustainable in the long-term, a water supply system must generate sufficient internal revenue to pay for all operational and maintenance costs and costs for eventual replacement of parts of the systems.

The second World Water Forum (The Hague 2000) called for full cost recovery to be phased in as soon as possible. It deals with a situation where all charges on water sold in bulk or direct to consumers is fixed at such a rate and scale that the revenue from the tariff would not only be sufficient or nearly so as to pay for the operation and maintenance of the system but shall also be enough to pay for any loans, renewal of asset, depreciation and other services.

Weak cost recovery is the root cause of systems failure. Thus the reliability of existing systems is more likely to be increased if users meet operation and maintenance costs.

Improved cost recovery will usually require the setting of clear objectives: Primary on this is the reforming of the tariff structure to meet revenue objectives. Greater attention should be paid to the billing collection and enforcement especially using electronic metering. A good strategy that may help to achieve cost recovery is participatory





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approach. Water supply development shall henceforth be based on a participatory approach involving users, planners and policy makers at all levels, and decisions should be made at the lowest appropriate level.

## Key principles to sustainable cost recovery include:

- a. Identifying the cost implications of the project's characteristics and the environment from the planning stage of the project or intervention.
- b. Maximizing the willingness to pay
- c. Clarifying financial responsibilities
- d. Optimizing operation and maintenance costs
- e. Setting an appropriate and equitable tariff structure
- f. Developing an effective financial management system
- g. Organizing access to alternative financial sources

### 4.12.1 Aspects of Costs to Recover

The traditional approach to cost recovery considers only the financial costs of a project or programme, such as operations and management (O&M) costs. Capital costs and possibly investments for future growth and rehabilitation (which includes accounting for depreciation of assets over time) are not immediately considered. Both financial and economic approaches to cost recovery are necessary. They take into account any new construction, maintenance and training. Often overlooked is the rehabilitation and extension cost as a result of population growth or increased demand for service levels. Also the maintenance of the existing capacities within the community constitutes part of the cost recovery. Costs to be recovered include the following:-

- Financial costs (operating costs, capital costs, cost of servicing capital);
- Economic costs/benefits include the lost value of water for other uses, pollution created or alleviated, and also the gains from productive use,
- Support costs includes institution building, human resources development (HRD), information systems, monitoring and assessment, regulation, planning and strategy Development

### 4.12.2 Why Is Cost Recovery matter very Important

Sustainability and scaling up of the system may be necessary as water systems operated and maintained. Water supply and sanitation services are known to provide economic benefits to communities in the form of healthcare, opportunities for women, poverty reduction etc. Agricultural development ensures food security through large scale irrigation farming, home gardens and livestock production. Investment in water infrastructure is a catalyst for local economic growth. But cost of delivering water must be paid for. This will provide the fund for operation maintenance and hence for



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sustainable supply of water. Water supply and sanitation services therefore, must be paid for to provide continuous services needed to improve the well being of the communities especially the poor.

It is also established that funding limitations and inadequate cost-recovery rank top as potential constraints to water supply systems development sustainability in every region. Water in its natural course may be free, but water processed and delivered to towns is done at a cost.

### 4.12.3 Willingness to Pay (WTP)

Any WSS study seeks answers to at least two fundamental questions: what are the costs of, and the benefits from an improved WSS services? It is an individual's utility function. The WTP concept generally refers to the economic value of a good to a person (or a household) under given conditions. Net economic benefits of improved water services, in simple terms, are estimated as the difference between the consumers' maximum WTP for better services and the actual cost of the services. Willingness-to-pay values provide crucial information for assessing economic viability of projects. It may also help the authority in setting affordable tariffs, evaluating policy alternatives, assessing financial sustainability.

Willingness to pay, as an expression of the community's demand, is a strong prerequisite for the financial sustainability of a water supply system. WTP, which is a useful yardstick for assessing project feasibility, depends on a number of factors:

- Demand and participation from communities
- Service level
- Service standard
- Perceived benefits
- Price of water
- Opportunity cost of time
- Reputation of service agency
- Policy environment and Institutional support.
- Socio-cultural factors
- Perception of ownership and responsibility
- Transparency of financial management

### 4.13 Infrastructural Development

Infrastructural development is an important factor of economic growth. To be able to achieve the adequate level of service, the infrastructure should be well developed. The infrastructural build-up should be effected by the government, the private sector and





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donor agencies.

Infrastructure technically refers to the technical structures that support a society such as roads, water supply systems, power-grid, and tele-communication infrastructure. These facilities are necessary for the production of goods and services, and are the basic installations for any development operations.

#### **4.13.1 Water Management Infrastructure**

The water management infrastructure includes the system of pipes, storage reservoir (both suction and distribution reservoirs), pumps, valves, filtration and treatment facilities. Also included are meters, buildings, and structures that house various equipments.

There is a high level of infrastructural decay and dilapidation, particularly in the urban water supply systems. The treatment system at Onitsha and the existing water supply facilities at Nnewi and Awka had badly deteriorated, and should be reconstructed for good water management. Coupled to these is the need to reconstruct large water works infrastructural systems in emerging cities of Ihiala, Ekwulobia, Umunze, Otuocha, and other Water Corporation Stations. The design for the water management infrastructure in the state must project and provide for the future, considering the rate of population growth and therefore make provision for expansion up to the next fifty years. The design shall be part of the overall development plan so that other infrastructural systems will be expanding without altering or disrupting the water supply services.

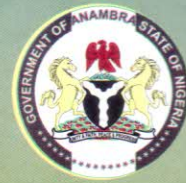
#### **4.14 Operation, Maintenance and Management.**

Operation of water supply system is a daily skillful management of the components of water supply systems such as head-works, treatment plant, machinery and equipment transmission means, service reservoirs and distribution systems efficiently to attain the objective of supplying safe and clean water equitably to the consumers.

Maintenance of water supply system is the art of keeping the structures, plants, machinery and equipment and other facilities in an optimum working order and in proper functioning and serviceable condition, e.g. by repairing water distribution pipes, pumps and public taps to forestall any interruption. There are types of maintenance viz: preventive maintenance, corrective maintenance and crisis maintenance. Preventive maintenance constitutes routine works and precautions to be taken periodically to prevent the system from mal- functioning. This is achieved by carrying out mechanical adjustments, repairs, corrective action and planned maintenance. Corrective maintenance deals with minor repairs and replacement of broken and worn-out parts to sustain reliable facilities. Crisis maintenance includes unplanned-for responses to emergency breakdowns to restore a failed supply. A policy of crisis maintenance is unhealthy to achieving a reliable supply to satisfy the consumer. Rehabilitation entails



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the correction of major defects and the replacement of equipment to enable a facility to function as originally intended. This becomes necessary when it is no longer technically feasible or economically viable to maintain a facility in good working order. Poor O&M practices have, largely contributed to decreased utility or even to an early failure of newly constructed water supply facilities. Thus the health and social benefits for which the facilities were designed and implemented would not be realized. Hence, proper O&M is absolutely essential for deriving the intended benefits (continuously) and without interruption, from the investments made. Water resources infrastructure shall be properly rehabilitated, operated and adequately maintained. Regular and routine maintenance should be carried out to ensure their sustainability, safety and longer life span in order to attain adequate and sustainable water and sanitation development. Basic requirements of successful O&M of a water supply system include: availability of detailed completion plans, development of operators' manuals, schedules of operation and preventive maintenance, schedule of inspection of machinery. The mean time to repair (MTTR) gives an indication of how long it takes to carry out a maintenance job and reflects the reliability of the system. The MTTR measures the 'maintainability' of a system. A low MTTR time points to systems which regularly maintained and efficiently organized maintenance works. It also reflects the efficiency of the work control system. Sustainability depends to a large extent on effective and efficient operation and maintenance. Many factors and processes that contribute to sustainability have a direct influence on operation and maintenance. Proper operation and maintenance activities will contribute to the sustainability of a service long after the facilities are installed. One of the problems associated with operation and maintenance is inadequate funding. The government shall as a matter of urgency rehabilitate all broken down water schemes and get them transferred to the communities.

All water resources infrastructure in the state shall be properly operated and adequately maintained in order that such infrastructure will function at full design capacity and reach their life span. Poor operation and maintenance have left a lot of water resources infrastructure located at various parts of the state in very bad rational conditions. Audits should be carried out to establish the status and effectiveness of O&M management. "Village Level Operation and Maintenance" (VLOM) principle shall be adopted where all routine inspections and minor repairs will be carried out by trained people or 'caretakers' from the community. All other water systems could also be managed with the same principle.

#### **4.15 O & M Audit**

Audits should be carried by the Ministry of Water Resources and its Agencies on infrastructures across the state to establish the status and effectiveness of O&M on





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management. An O&M audit is a valuable management tool for assessing the way O&M is working. It is a systematic procedure for obtaining and evaluating objective evidence on O&M organization and practice. The information from the audit is fed directly into the development of action plans to improve both the function and structure of the management processes for O&M. The audit provides an independent opinion on the effectiveness and sustainability of the operating systems and they help in setting performance targets. Audits highlight system deficiencies and lack of crucial management functions. Some of the important resources for O&M are finance, personnel, repair facilities, material availability, information documentation, and utilization of local potential, materials and labour. Some of the questions posed by the audit include:-

- What is the capacity of the facility?
- How well was the capacity utilized?
- What is the population of the target group?
- What scope is there for expanding the capacity in the short term and long run so that the existing systems can serve a rapidly growing population?
- What was the Mean Time to Repair (MTTR) when there was fault?

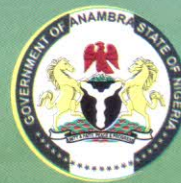
## Policy Thrust for O&M

The policy thrust for operation and maintenance for water supply and sanitation includes:-

1. Fund shall be provided for in the budget and released at appropriate time for O&M to reduce the Mean Time to Repair (MTTR).
2. A percentage of the construction cost shall be set apart as O& M cost. This shall be institutionalized and released timely if water supply and sanitation facilities are to be maintained sustainably.
3. There should be periodic auditing of community based and other sanitation and water supply systems to determine levels of operation and maintenance.
4. Water resources infrastructure shall be properly rehabilitated, operated and adequately maintained.
5. There shall be decentralization of the responsibilities of operation and maintenance to the lowest appropriate levels at different areas of operation.
6. Operation and maintenance should be sustained to ensure a reliable and adequate potable water supply and to establish integrated network of maintenance programme for all water resources infrastructure.
7. The distribution of operation and maintenance costs for water systems in rural, small towns and urban water supply is shown in the table below



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## Operation and maintenance contribution

AGENCY	Rural Water Supply	Small Town Water Supply	Urban Water Supply
Federal Govt.	0%	0%	0%
State Govt.	10%	0%	100% - tariff
Local Govt.	20%	0%	0%
Communities	70%	100%	Table 7 0%

### Urban Water Supply (Tariff)



CONTRIBUTION FOR OPERATION AND MAINTENANCE

### Small Town Water Supply



### Rural Water Supply

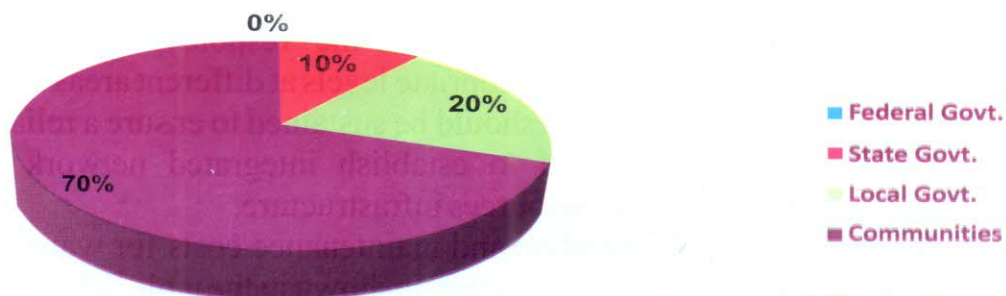


Fig 9





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## 4.16 Monitoring And Evaluation

Monitoring is the continuous tracking and timely collection of data to determine if activities are being implemented as planned. It is carried out throughout programme (or project) implementation phases using indicators to provide management and stakeholders with a measure of progress towards achievement of objectives.

The monitoring process tracks indicators and means of verification at the output level of a project logical framework. It provides information by which management can solve problems and assess progress. Monitoring therefore involves:

- Establishing indicators of efficiency, effectiveness and impact
- Setting up systems to collect information relating to these indicators
- Collecting and recording the information
- Analyzing the information
- Using the information to inform day-to-day management decisions

Monitoring and evaluation will enable the quality and the impact of works assessed as against the action and strategic plans.

The five key criteria of monitoring and evaluation are:

1. Efficiency
2. Effectiveness
3. Impact
4. Relevance
5. Sustainability

### Key principles and objectives of monitoring include:

- a. Monitoring should be based and planned on a solid knowledge of objectives and activities.
- b. Monitoring information should be collected and acted upon at the appropriate levels.
- c. Should be focused and simple.
- d. Monitoring should be based on a careful definition of indicators that are adapted to the project.
- e. Should combine qualitative and quantitative information.
- f. Shall be in-built and integrated into project cycle and not a separate activity.
- g. Shall ensure satisfactory progress towards attainment of objectives.
- h. Provide feedback information on the progress or impact of the work.
- i. Document experiences gained.

## 4.17 Feedback Process

Feedback encourages active reflective practices. Providing and receiving feedback is an



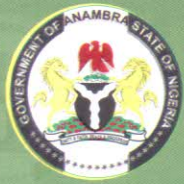
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invaluable and essential part of the learning process and project implementation process. Feedback is a mechanism or process of applying information from a system to correct itself. Such a loop is called positive feedback. The process gives insight into what have actually been done to arrive at outcome, highlighting the dissonance between the intended outcome and the actual outcome, as well as the strengths and areas for improvement, thereby providing impetus for change. Some of the questions that highlight the need for feedback include:

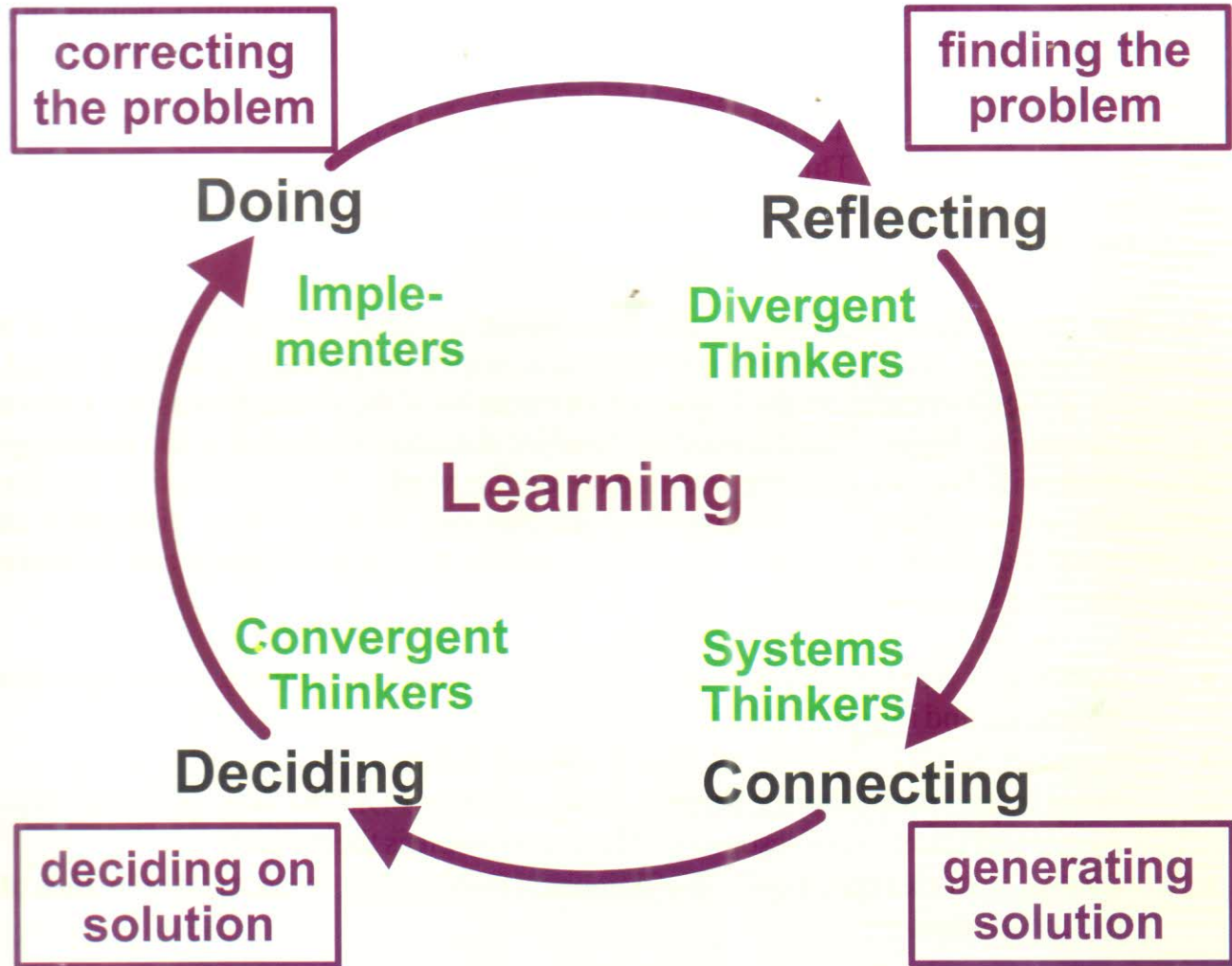
- Do you know what your customers really think about your services?
  - What are your objectives?
  - Is it to assess client satisfaction? That's the most common objective, but it is not the only possibility.
  - Do you want to keep track of what clients describe as important to them?
  - What's changing in their environment that could affect the ability to serve them better?
  - We may find it helpful to identify the pressures they are experiencing?
  - Do customers really understand the nature and scope of the services?
  - What shall be done with the feedback-gathering activities to assess the need for Service changes?
- i. User satisfaction surveys and feedbacks are fundamental.
  - ii. Tracking progress against carefully defined output indicators provides a clear basis for monitoring progress.





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## Feedback Process In Operation And Maintenance





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## 4.18 Evaluation

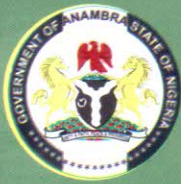
Evaluation is a periodic process of determining the achievement of goals and objectives and to assess comprehensively the effectiveness of project activities. It also measures impact of a program over some time after the completion of the project. The reason why most projects fail is because there is no serious monitoring, evaluation and professional supervision activities. The process of monitoring and evaluation involves the identification of indicators, baselines and targets; that is, the collection of actual data and comparing performance against target.

Evaluation requires the situation to be assessed both at the beginning and at the end of the project or process. This implies that baseline data relating to the proposed performance indicators must be collected before the project or process starts and at the end of the project.

Baseline data is the data (information) from baseline survey or the assessment of a situation before an activity. It is the information on which the problem analysis is based. It is very difficult to measure the impact of an initiative if the situation was not known before the project begun. There is need for baseline data that is relevant to the indicators and which will help to measure the impact of the work. This information is very important in monitoring and evaluation. It enables one to assess what difference an intervention has made. It is therefore used to assess the progress made and to make comparisons. Evaluation involves:

- Looking at what the project or organization intends to achieve, knowing what difference and impact to make.
- Assesses the progress towards what it wants to achieve.
- What is the strategy of the project or organization? Did the strategy work? Was there an efficient use of resources? How sustainable is the project?
- Evaluation looks specifically at efficiency, effectiveness, impact and relevance of the entire venture.
  - Efficiency tells us whether the input into the work is appropriate in terms of the output. It is the performance criterion corresponding to output- how were inputs and activities converted to result?
  - Effectiveness is a measure of the extent to which a developmental programme or project achieves the specific objectives it sets. That is, how the result contributed to the achievement of the project purpose. It is the performance criterion corresponding to outcome.
  - The relevance of a project is the degree to which the real problems of the





# Anambra State State Water Supply & Sanitation Policy

- target group are addressed by the intervention. At the overall objective level, it is how the wider problems of the society and the entire sector are addressed.
- The impact tells whether a difference was made to the problem situation for which an intervention was meant to address. How did it benefit the society and the sector?

Some of the indicators for monitoring the efficiency of service provision at different levels are:

- a. The number of people with access to drinking water in an area.
- b. The actual quantity of water supplied per capital at a given period of time.
- c. The regularity and coverage of the supply.
- d. The quality of water supplied compared with the Nigerian standard for drinking water.

Projects must be closely supervised to ensure compliance to design and standards. Evaluation follows a given process and helps in final decision and eventual designing and replanning of the project where objectives were not satisfactorily met. It also allows implementation to become a learning process by reflecting on the outcome.

#### **4.18.1 Indicators**

Indicators are quantitative or qualitative variables that provide a simple and reliable basis for assessing achievement, change or performance. They are units of information measured over time that can help show changes in a specific condition. The indicators provide the framework for monitoring and evaluation of systems because they are what is measured and/or monitored. For example, how do we measure progress towards the objective of strengthening the WCA community management capacity? How do we know if the benefits are likely to be sustainable? A good and useful indicator is characterized by being specific, measurable, attainable, relevant, and time bound (SMART).

An indicator shall be relevant (measures what is needed, which must be related to the objectives). It shall be sensitive (responds to variations and changes). It shall be simple, that is, the community and other actors shall be able to understand it and the data should be easy to act upon. Finally an indicator shall be feasible, that is, the information shall be easy to be collected and it shall not be costly.

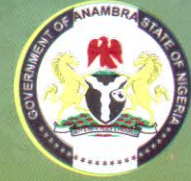
For comparative purposes, it is usually necessary to find a way of placing quantitative value on qualitative indicators. Such indicators can be quantified using 'ranking scales' ranging from "very happy", through "happy", "indifferent", "unhappy", to "very unhappy".

#### **4.18.2 Key Performance Indicators (KPIs)**

These are measures or indices for monitoring the performance or implementation



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specified strategy; that is indicators of whether or not the strategy is implemented of how well it has been implemented. KPIs must be SMART. Capturing key performance indicators will involve linking spending to delivery in the budget process and will require that performance indicators are identified exactly: that is, it shall specify when the indicator will register the impact of an initiative. Initiatives are any activity that allows the sector to achieve the objectives that have been set. They include:

- a. Programmes- any set of personnel costs, overheads and capital expenditure aimed at achieving a particular output or outcome.
- b. Projects- capital expenditure designed to deliver a specific outcome or output in the form of an asset that will last for more than one year.
- c. Strategies or initiatives therefore comprise activities, methods, processes, projects or programmes to be undertaken either alone, or in some combination, so as to achieve the specified goals and objectives.

The Medium-Term Sector Strategies (MTSS) guidelines provide simple log-frame format that will be used to capture the intended outputs and outcomes from all initiatives.

## **Policy Thrust For Monitoring and Evaluation**

- Monitoring information should be collected and acted upon at the appropriate levels.
- Monitoring should be based on a careful definition of indicators that are adapted to the project and provide feedback information on the progress or impact of the work.
- The process of monitoring and evaluation shall involve the identification of indicators, baselines and targets; collection of actual data and comparing performance against target.
- The opinions of the users and their level of satisfaction shall provide information about the service level of the system.





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## SMART ANALYSIS

SMART ANALYSIS		Cream Compliant	
Specific	Projects or targets to be achieved shall be well defined. Key indicators need to be specific and to relate to the conditions the activity seeks to change. The horizontal logic of the Logframe matrix helps to test the criteria.	clear	Others can understand and interpret it
Measurable	<b>Targets shall be measured by quantifiable indicators because they are precise, can be aggregated and allow further statistical analysis of the data</b>	relevant	Appropriate and timely
Attainable	-The indicator (or information) must be attainable at reasonable cost using an appropriate collection method; should be accurate with reliable information	economic	Available at reasonable cost
Relevant	-Targets selected must be capable of impacting and improving peoples welfare; Indicators should be relevant to the management information needs of the people. Indicators must also be selected to meet the management and informational needs of all partners to implementation.	Adequate	Sufficient to assess performance
Timely	-Projects and target are set within a given time frame. Also information on an indicator needs to be collected and reported at the right time to influence many management decisions. Information about agricultural based activities, for example, must come within specific time periods if it is to be used to influence events in the next cropping and processing cycle. Where possible, indicators should incorporate elements of quantity, quality and time.	monitorable	Can be independently judged



## 4.19 Performance Evaluation

Performance evaluation is the outcome of interpreting a range of performance indicators in relation to their respective targets. Effective evaluation of the status of O&M depends primarily on the ability to measure current performance. The status or performance of O&M is assessed by comparing each performance indicator with its respective target.

Performance indicators (PI) can be defined as variables whose purpose is to measure change in a process or function. Performance target is associated with corresponding performance indicator. The indicators should be linked with the system to allow feedback for decision-making. Performance indicators are used to monitor the progress of a process; and the main purpose is to evaluate the outcome of the project or process. The baseline data of the proposed performance indicators must be collected before the starts of the project to be able to assess the performance standard. The opinions of the users of services and their level of satisfaction provide essential information about the operations of that service. Levels of service reflect the consumers' access to services in respect to reliability, availability, quality, quantity, cost and value for money.

Performance monitoring and evaluation is designed to support results-based management, strengthen accountability, promote transparency, and improve reporting. Performance evaluation provides a framework for tracking, and reporting outputs and outcomes. It facilitates access to information, and provides mechanism for evidence - informed decision-making and for improving organizational learning and future operations.

The overall purpose is to measure sustainability of service delivery. The indicator measures the extent to which service providers adhere to specific standards of service delivery and the established quality standards should be based on some guidelines.

The service providers include private water providers, suppliers, Service Implementation Agencies, the WCAs, WASH groups and WASHCOMs and other support services groups that are outside the public sector.

Performance Indicators may include the following;-

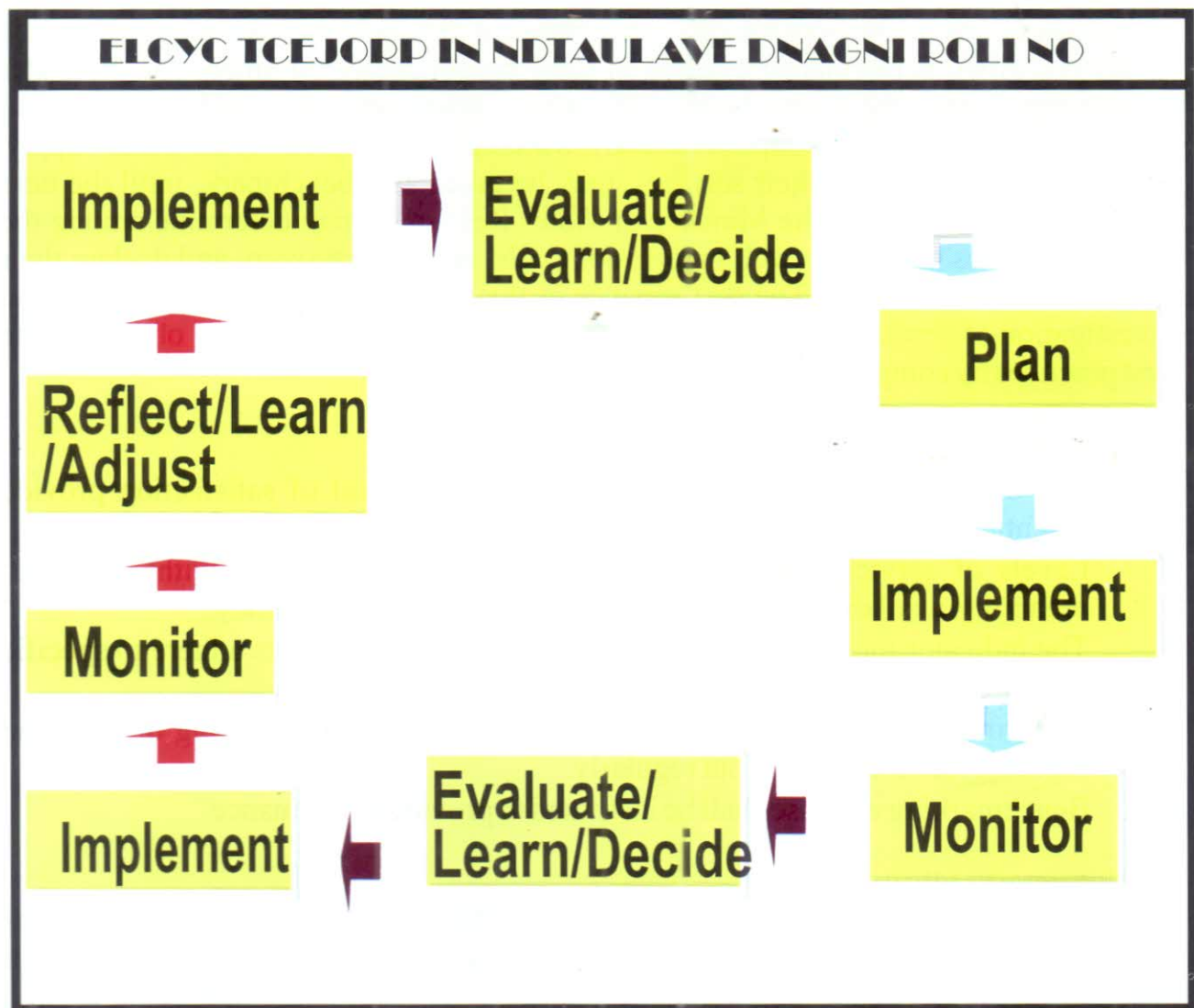
- What is the capacity of water produced in the state today?
- What is the delivery in terms of urban, small town and rural components?
- How many water schemes are completed and handed over?
- How many water schemes are operational and how many boreholes are functional and serving the people?
- What is the target output? What is the level of efficiency and effectiveness of the investments made?
- Are the water systems tested for water quality in line with standards?
- What is the effectiveness in dealing with water related diseases?
- What of the financial sustainability (average domestic and community tariff)?





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## MONITORING AND EVALUATION IN PROJECT CYCLE







## 4.20 Benchmarking Process and Performance

Benchmarking is the process of comparing a best practice process and performance metrics of a group, taken as standard (water provider) to the performance of other groups. It is used to measure performance using specific indicators, e.g water supply efficiency. In benchmarking, the objective is to equal or improve on the benchmark. This technique is based on performance measurement through the use of performance indicators. Also, performance evaluation shall be conducted routinely for the water service providers - the agencies, WASH, private water service providers, WCA and among the WASHCOM groups. The body which performs credibly in water supply, sanitation and hygiene in their services, may be taken as a benchmark, until the next performance evaluation. The Ministry of Water Resources may determine among the groups, the ones that did so well in terms of O&M and cost recovery and declare their operations as benchmarks. The performance evaluation shall focus on observation and investigation of service delivery processes with a goal to identifying and observing the best practices by comparing outcome and services.

## Policy Statement

- The opinions of the users of services and their level of satisfaction provide essential information on the efficiency and effectiveness of the service provider.
- Levels of service reflect the consumers' access to services with respect to reliability, availability, quality, quantity, cost and value for money.
- The indicator measures the extent to which service providers adhere to specific standards of service delivery.
- Performance evaluation as framework for tracking, and reporting outputs and outcomes shall be carried out regularly.
- Benchmarking exercise shall be instituted to provide performance.

## 4.21 Sustainability

This is the continuous outcome of a project after the technical/funding assistance has come to an end. Sustainability is ensuring continuous operation and maintenance of installed facilities. A sustainable system is one that is functioning and being used; a water system is sustainable if it is operated and maintained to be able to deliver appropriate level of deliverables (quality, quantity, convenience). For example, the continued operation of schemes by the WCAs/WASHCOMs long after the EU-WSSSRP, had gone, with continuity over a long period.

It is achieved when the physical sustainability of the facilities are progressively carried out. That is, the systems working efficiently and effectively. This will lead to financial sustainability as the scheme is well maintained and managed.





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Financial sustainability shall of necessity involve full cost recovery. This involves the willingness to pay, by setting the right tariff which shall eventually result in economic stability and sustainability of the project in an area. The sustainability input and output processes shall result in service delivery chain, and follows the monitoring and evaluation logic model with appropriate levels of indicators. This starts from the input level, and spans to output, outcome, impact and sustainability levels, till policy goal is achieved.

## **A system is sustainable if:-**

- It is functioning and being used
- It is able to deliver an appropriate level of benefits (quality, quantity, convenience, comfort, continuity, affordability, efficiency, and reliability) etc
- It continues over a prolonged period of time even beyond the lifecycle of the equipment
- Its management is institutionalized and may involve community management gender perspective, partnership with local authorities, formal or informal private sector
- Its operation, maintenance, administrative and replacement costs are covered at local level
- It can be operated and maintained at local level with limited but feasible external support (technical assistance, training, monitoring)
- It does not affect the environment negatively

Strategies that can contribute to the sustainability of water supply and sanitation projects shall reflect the true demands on the people

### **4.21.1 Processes which influence sustainability**

- Community ownership and management
- Responsiveness from the supporting institutions
- Participation of the community throughout the project phases
- Planning with a gender perspective
- Decentralization and transfer of responsibilities and resources
- Capacity-building at all levels
- Communication among stakeholders
- Public-private partnership
- Consumers to pay all costs required to achieve long-term sustainability
- Tariffs to be established for each water supply system to ensure cost recovery and





long term sustainability

## Policy Statement

The policy principle on sustainability has tariff setting with cost recovery as its focus.

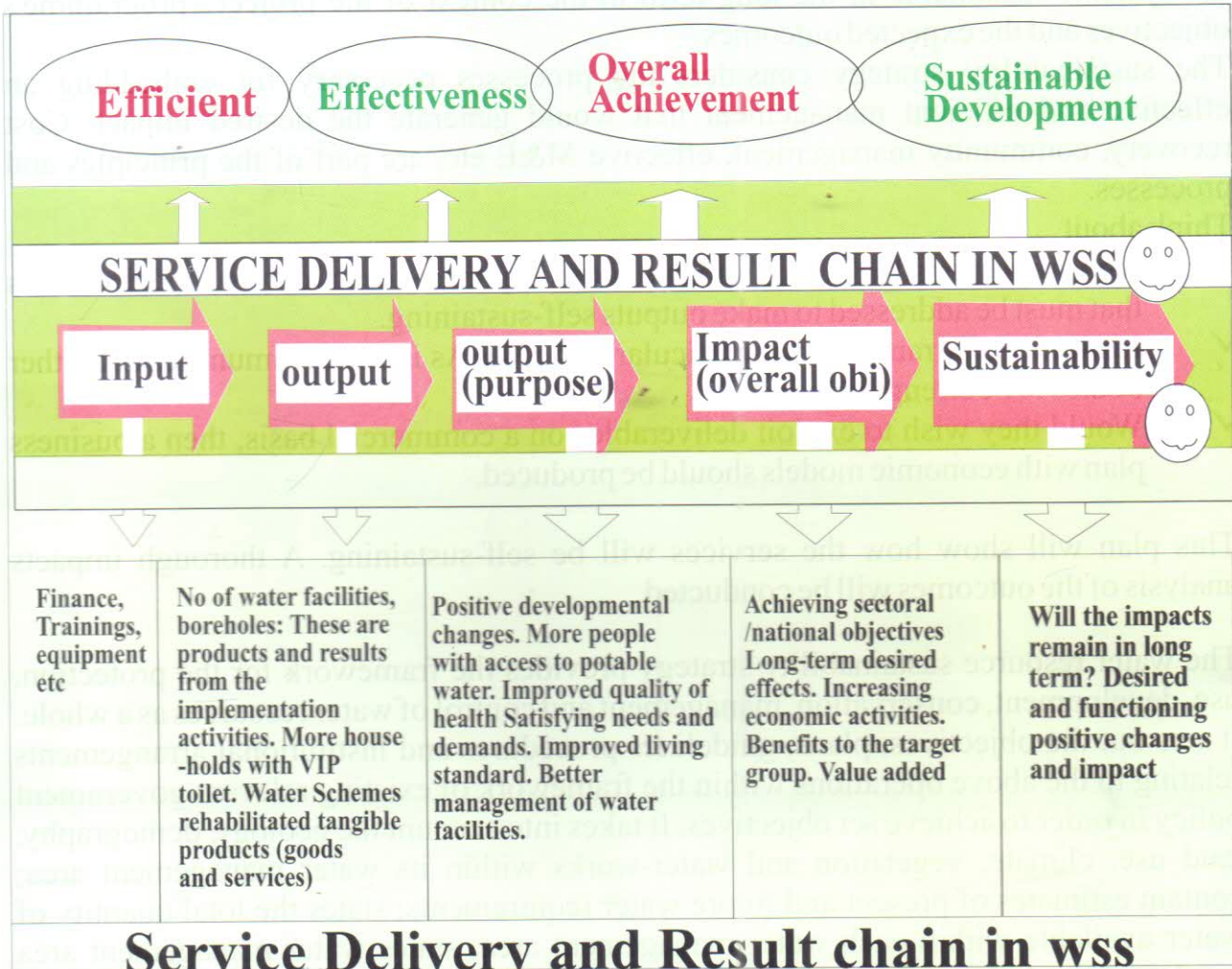
1. Communities should take ownership and maintain water systems in their areas.
2. Setting charges for services at levels which will generate sufficient income to cover the operation, maintenance and replacement costs and ensuring timely collection of revenue.
3. Private sector involvement is strongly advocated to help in efficient operation and maintenance for sustainability of the schemes.





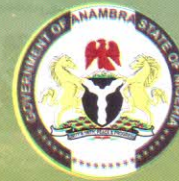
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## SUSTAINABILITY IN SERVICES DELIVERY RESULT CHAIN





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## 4.22 Sustainability Framework

With the huge investment being made in infrastructural development in the state, particularly in the rural and small town sub-sectors, the main challenge is how to have the systems sustainable in the long term in the context of the project's/programme's objectives and the expected outcomes.

The sustainability strategy considers the processes necessary for embedding an effective and efficient management that would generate the desired impact. Cost recovery, community management, effective M&E etc, are part of the principles and processes.

Think about

- ✓ who are responsible in the framework to carry them forward, how, and the issues that must be addressed to make outputs self-sustaining.
- ✓ Institutional arrangements, particularly the WCAs in the communities and other bodies to be strengthened.
- ✓ Would they wish to exploit deliverables on a commercial basis, then a business plan with economic models should be produced.

This plan will show how the services will be self-sustaining. A thorough impacts analysis of the outcomes will be conducted.

The water resource sustainability strategy provides the framework for the protection, use, development, conservation, management and control of water resources as a whole. It sets out the objectives, plans, guidelines procedures and institutional arrangements relating to the above operations within the framework of existing relevant government policy in order to achieve set objectives. It takes into account the geology, demography, land use, climate, vegetation and water-works within its water management area; contain estimates of present and future water requirements; states the total quantity of water available within each water management area; states water management area surpluses or deficits; includes collaborative public and private partnerships and acceptance; protect the environment which is linked to public health and reduce impacts to natural habitats. The sustainability plan can be summarized as shown below:-

### 4.22.1 Sustainability Plan

1. This policy together with the implementation strategy will form the sustainability plan that focus on a long-term vision and broad goals, which outlines, specific targets, quantitative indicators and a detailed timeline on a long-term vision and broad goals.
2. The plan envisions what the situation would be, like in ten, twenty or fifty years and takes the first step to holistically managing the impacts both positive and





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negative on the environment, community and economy.

3. How would the plan enhance the community welfare? How would it contribute to the local economy?
4. How could it be a good environmental steward? Creating a vision of an ideal state/organization will help guide the path to a sustainable future once the future is well envisioned will be determined then, determine how the current operations match up with the vision.
5. Evaluating the level and significance of the current impacts allows us to be properly concerted.
6. Using the vision and current impacts as a guide, we can determine what the long term goals will be. These goals are applied to determine what interim-targets must be to enable us work to realize the goal.
7. When we have set the goals and targets, it's time to determine what specific actions will get us there. We then break it down to specific activities, practices or policies and then make sure someone is responsible for each item. Over time these small steps will help us achieve the long-term vision.

## 4.22.2 Critical Assumptions

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

- a. There is conducive political and socio-economic environment and enabling democratic governance at the three tiers of government, resulting in sustainable sector-wide programme planning and implementation.
- b. 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 water supply and sanitation thereby avoiding duplication of efforts and wastage of scarce resources in the process.
- c. There is sustained political will, interest and commitment for the implementation of the programme at all levels of governance.
- d. Each level of government subscribes to a partnership and human right approach of working with communities for the development of their water supply and sanitation systems.
- e. 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.
- f. The anti-corruption drive will be vigorously and sustainably pursued, yielding





- dividends of changed behaviours and attitudes with respect to integrity/accountability in the use of public funds committed to the water supply sanitation programmes.
- g. 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 beliefs and habits are minimized
  - h. Due to bureaucracy in the various levels of decision, implementation of the programme is reduced to the barest minimum.

#### **4.23 Capacity Building**

Capacity building of institutions and individuals is the only assurance for the sustainable delivery of the water supply and sanitation in the state and communities. Personnel- at the local and state levels, private contractors and mechanics need to be trained. Also decision makers at all levels need to be informed and be involved. Communities and community artisans need to have basic skills for management of the programme-implementation process. This includes the repair of simple machinery, development of action plans, monitoring and record keeping.

They should know how to carry out basic repairs and maintenance of their safe water supply systems and sanitation facilities; should know how to ensure household water security (in terms of quality and quantity), construct and maintain latrines, and ensure overall environmental cleanliness. New communications skills which encourage dialogue and participation, and effective work planning skills including monitoring, evaluation, and problem resolution shall be well understood.

Through the building of capacities, a thorough knowledge of the policies, practices and the technical details of the projects, programmes, and processes are obtained.

#### **4.24 Decentralization**

Decentralization is the transfer or devolution of administrative autonomy and responsibilities for decision making to lower levels of government and ultimately to communities themselves. The water governance in the state shall be devolved or stepped down to the state water agencies, the local government, the water consumers associations, and the communities.

Decentralization and governance reform processes can positively impact the water supply and sanitation sector, where it is argued that high quality local governance is essential for the provision of appropriate and sustainable services.

#### **Objectives of decentralization**

- Efficient and effective organization





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- Delegation and devolution of authority and responsibility to lowest appropriate level
- Participation of stakeholders.
- Transparency and accountability
- Cost recovery

## **4.25 Decentralization and Poverty Reduction**

In some developing countries, decentralization of strategies involves the devolution of administrative and financial responsibility for governance to the lowest appropriate possible level. This is adopted as part of the broader reform measures. By this, the community and local government personnel, etc, are engaged and empowered with responsibilities that have some financial benefit which positively impacts their lives.

## **4.26 Gender Main Streaming**

Gender refers to the roles and responsibilities of men and women and the relationship between them. Gender does not simply refer to women or men, but to the way their qualities, behaviours and identities are determined through the process of socialization. Increasingly, the need for gender mainstreaming has remained a major global concern and in Anambra State, this has been recognized as a positive input to enhance sustainable development.

It has become clear that women pray for efficiency and effectiveness of WASH delivery. The reasons are obvious. Traditionally, women are the custodians and managers of water in our homes. They understand the problems and bear the brunt of any water scarcity. Their involvement will bring greater commitment in the management of water sources and environmental hygiene, both in their homes and neighbourhoods. They draw, store, utilize and manage water as per requirements of the family. Because women are the first and worst hit, they often are the most highly motivated group to mobilize for the promotion of sustainable WASH programming, thus, the need for a deliberate strategy to ensure that gender mainstreaming forms part of community development dynamics for sustainable water supply, sanitation and hygiene. Including women in projects such as water supply committee would have positive impacts on their position in the community. Their views have to be considered and their participation vital if WASH programming is to bring the desired benefits.

## **4.27 Private Sector Participation (PSP)**

Water development and delivery had been carried out in the past primarily by public sector. The private sector involvement in the delivery of water services is one of the elements of the reform process. It is intended to bring planning, financing, efficient operation in the implementation of water supply system. The private sector investment



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will probably bring some measure of activities which shall engender commitment, transparency and accountability in the sector. This will improve efficiency and effectiveness and enhance development and sustainability of service delivery and wealth creation. The government will ensure that an enabling environment for PSP is created within the sector.

Private sector providers need to operate on a commercial basis to ensure long term sustainability of the water sector. The investor must be given some measure of autonomy in all aspects of their operation. However, in pricing, where the WCA or WASHCOM is not a service provider, water rate and tariff must be an agreement between the service provider, the WCA/WASHCOM, the consumers and the regulator.

The CSOs and NGOs have a critical role to play particularly in Water systems. Government owned water supply infrastructure shall not be fully privatized at this stage of the development of the sector. Private sector involvement has several advantages which include:-

- a. Potential for additional finance and technical expertise
- b. Greater transparency, efficiency and accountability
- c. Improved service delivery
- d. Guaranteed sustainability of service
- e. Incentive for operational efficiency
- f. Introduction of state of the - art technology for better performance in small towns and rural areas the private operators shall be needed in the operation and maintenance of water schemes

#### **4.27.1 The policy thrust is as follows;-**

- The private sector shall be involved in all aspects of provision of water supply in the three sub-sectors of rural, semi-urban, and urban areas. They will contract with relevant government organs and other community based organizations to provide the required goods and services
- Participation by locally based companies will be encouraged.
- The regulatory body will issue regulations with respect to minimum standards that must be achieved to participate in certain areas of business.
- Government will encourage the growth of the private sector, and may establish programmes to support its development.
- The PSP shall have some autonomy of decision making process and shall have independent financing and budgeting.

#### **4.28 PSP Models Suggested For Urban Works**

The dream that government will continue and be able to provide water for all is now an





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illusion. Due to the scale of dilapidation, the cost of rehabilitating the old schemes and constructing new ones is huge. Increased financing for water services from both public and private sectors and the donor agencies is necessary to meet the current need. One of the main challenges in introducing PSPs lies in the proper definition of governance structures for all actors: roles and responsibilities. This must be clearly stated, and the regulatory mechanisms must be established from the out-set with the involvement of civil society organizations. These issues are crucial for public utilities PSP development.. Investors seek confidence that their legal and financial interests are protected for the full contract duration, and that they can recover their investment over time. This implies appropriate regulatory arrangement, transparent contracting procedures, and reliable cost recovery mechanisms. The different PSP options recommended are given below.

#### **4.28.1 Concession**

It is a contractual arrangement whereby a private company acquires the right to provide a service at a given standard or specification for a fixed time, usually on behalf of the government or a government agency. The private company operates and manages the system, usually makes the necessary investments, and carries the commercial risks for the agreed concessionary period, usually of around 25-30 years. This allows the concessioner to recoup expended capital. The role of the government in concession contracts is predominantly regulatory as the owner of the assets.

#### **4.28.2 Lease Contract**

A lease contract is a written agreement between the public owner of a facility/property and an operator that stipulates the conditions under which the operator may possess the facility property for a specified period of time and amount of rent. Under a lease contract the private firm operates and maintains the assets at its own commercial risk providing services to the customers and deriving revenue directly from tariffs. In contrast to the concession contract, the private operator does not invest in infrastructure, and hence only receives the parts of the revenue which cover operation and maintenance costs. Investment costs are borne by the public partner. The usual duration of a lease contract is 6-10 years.

#### **4.28.3 Management Contract**

It is a contractual arrangement in which management, operation, and maintenance of the public infrastructure are contracted to the private sector but in which ownership, capital investments, and commercial risks remain with the public sector, typically with a duration of around 5 years. There is usually a performance based component in the remuneration for the private operator. This is therefore a medium-risk contract but with



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greater responsibility of the private company than a service contract.

The regulator shall ensure standard practice and performance by the management contractor.

#### 4.28.4 Models and Performance Based Contracts

From the models stated above, private sector participation varies in the degree of involvement in the required activity to be performed. Other variables include the required capital investment, scope of work and duration of the engagement.

Concession on new schemes will involve the construction of new facilities, and operating the project for an agreed period to enable him recoup the investment and train required personnel. The Build Operate and Transfer (BOT) shall be appropriate in this case. The management contracts may involve the rehabilitation and management of many broken schemes... The model being suggested is: Rehabilitate Operate and Transfer (ROT).

There may be the operation and maintenance contracts between WCA and a private skilled personnel. That may involve the maintenance of local small town schemes.

The PSP contract shall be performance based. The effectiveness of each WSP shall be appraised regularly.

#### PSP Involvement; Small Town and Rural Water Supply:

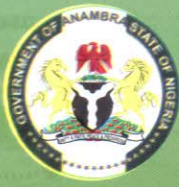
The PSP involvement may include operation and maintenance, distribution, billing and revenue collection. Level of participation for PSPs in rural communities shall be determined by the size of the system, quality, complexity and technological option used and the community members. The level of PSP involvement should be properly regulated, tariff should be affordable, and quality and standard of services shall be set by the WCA or WASHCOM in conjunction with the people and regulated by the board of the relevant agency in the absence of the regulator.

#### 4.29 Poverty Responsiveness

Urban poor areas or slums exist in our major towns of Onitsha, Nnewi and Awka. These areas particularly in Onitsha have been identified. The United Nations defined the slums as communities in which the occupants are squatters, with no access to improved water and sanitation, or where dwellings are made of non-durable materials or are over crowded (more than 3 people per room). Any community where people live under any of these conditions is deemed a slum."

Two key approaches to the provision of water supply and sanitation to the poor are policies of social inclusion that explicitly provide services to poor people and building capacity of local service providers and community organizations. Adequate water and sanitation as well as hygiene promotion are the most cost-effective means of improving





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health and averting premature deaths. Residents of slums live in the most polluted environments, and consequently have the worst health hazards.

The poor suffers the most, from lack of access to safe, clean and reliable water supply and, typically, pay the highest cost for water. High cost can be in terms of physical labour to collect water from distant sources, buying water from water vendors at high costs. The urban slums are often most neglected and are not served by water schemes, and are vulnerable to the contamination of water-borne disease. The provision of water to the poor requires the following:-

- Enabling environment for pro-poor service
- Creating the enabling environment for urban water supply service providers to operate and ensure that poor sections of the urban areas have access to potable water.
- Appropriate financing mechanism shall be addressed to ensure that safe water runs for the poor at prices that are affordable, or to use creative tariff charges that are cross-subsidized for the poor.

#### 4.30 Advocacy

This represents the series of actions taken and issues highlighted to change "what exists/is" into what "should be". Advocacy aims to influence public-policy and resource allocation decisions within political, economic, and social systems and institutions. It seeks to influence government policy, and focuses on encouraging social change.

The advocacy groups vary from political, economic, social and environmental issues, but they have common objective, that is, to influence public-policy and unproductive practices in our systems. Some forms of advocacy group include, budget advocacy which ensures proactive engagement with the government to make public institutions more accountable to the people and promote transparency. The legislative advocacy brings pressure on the state legislative process and promotes strategies that would bring positive change in the society.

Intensive and sustained social marketing shall be carried out as a means of stimulating the demand for the installation, use and maintenance of safe and appropriate water supply and sanitation facilities in communities, institutions, urban, semi urban and rural areas of the state. Areas where advocacy is needed in the water supply and sanitation policy include:

- Assisting in the implementation of the water supply and sanitation policy.
- Advocacy for the increase of annual allocation to the sector to redress the neglect and poor funding of the past years.
- Giving a voice to citizens' interest as per the need for the provision of safe, affordable water supply and sanitation particularly to the poor. etc

Mobilizing citizens to accept the reform initiative of cost recovery and cost sharing for sustainable management of the water schemes in the communities.



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## CHAPTER FIVE

### 5.1 Urban Water Supply

The challenges of improving the water supply situation in urban sub-sector is enormous given the extent of the current problems and inadequate level of service, both in quantity and quality. Profound changes in the thinking, policies, organizational structure and management of the sector are required if quality improvement in the water supply situation in the state is to be achieved within the foreseeable future.

Core to the success of the Nigeria's Vision 20:20:20, and the state Integrated Development Strategy (ANIDS) blue-prints are institutional reforms at all levels of government and improved service delivery.

The efforts of the Federal Government of Nigeria are geared towards creating an enabling environment for public-private sector partnership, providing a lead to states so they can formulate their own policies and strategies for the provision of water supply and sanitation services in the states.

The current thrust is that governments should discontinue being service providers, but should create the enabling environment for the private sector to deliver efficient services.

Thus this policy is in accordance with Vision 20:20:20, which includes:

- Reforming and re-professionalizing government institutions.
- Growing the private sector
- Empowerment and participation of people, enhancement of civil society organizations
- Value re-orientation and not "business as usual"

### 5.2 Small Town Water Supply

Small towns are settlements with population between 5,000 to 20,000 and having a fair measure of social infrastructure and some level of economic activities. All local government area headquarters excluding Awka, Onitsha and Nnewi are considered small towns. The recommended consumption standard of water supply should be 60 litres per capita per day. Systems shall have reticulation and house connection as determined by the beneficiaries. The WCA shall be responsible for the provision of water supply in the small towns. Where the systems are complex, professional management will be required, and the WCA may decide to contract out the operation and maintenance of the systems and revenue collection to a water service provider (WSP). There are more than 1500 boreholes in Anambra State today of that number 75% of them are located in the area demarcated as small towns. For effective water service delivery in the small towns, a Small Town Water Agency shall be formed to provide technical assistance to the WCAs





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## 5.2.1. Policy Statement

- There should be ownership/transfer of all small town water schemes to ensure sustainability.
- Small towns should be involved in all aspects of water supply delivery including planning, design, operation, management and ownership of water and sanitation facilities.
- WCAs should be established in all small towns to represent consumer interest and must be registered and/or be corporate bodies.
- Water rates and tariffs shall be established by WCA in consultation with small town agency to ensure long term sustainability and easy access by the poor.

Water rates and tariffs must be approved by the board of the Small Town Agency in the absence of the Regulatory Body, to ensure that tariff reflects the economic status of the rural communities and also able to achieve full cost recovery. Service provision by private operators in the small towns shall be well regulated and monitored in order to protect both the small town communities and the water service providers. For large schemes serving more than one small town, a regional WCA may be formed to assist in the management of the scheme.

## 5.3 Rural Water Supply and Sanitation

The expected outcome of the rural water supply and sanitation is to strengthen and enhance community management skills which will lead to the sustainability of water supply and sanitation services, for a more productive and fulfilling life. This will increase the capacity of the local institutions to manage programme implementation in an efficient and cost effective way in the communities,

For a rural dweller, the allocation of 30 litres of safe water per person per day and served within 250 metres from the community, and serving about 250-500 persons will ensure supply of water both for drinking, subsistence agriculture, home gardens, livestock, tree crops and for expanding grain production.

Rural dwellers constitute the highest population of those in need of potable water supply and adequate sanitation facilities in Anambra State. Majority of rural dwellers are poor and suffer most times from lack of adequate water and proper hygiene facilities. The rural dwellers, like the urban slums, pay the highest cost for water when quantified in terms of physical labour for collecting water from distant sources, and buying from water vendors at high costs.

This policy therefore supports rural communities to plan, implement and manage sustainable water projects through a cost sharing formula amongst the state, local government and benefitting rural communities.



# Anambra State State Water Supply & Sanitation Policy



## Policy Statements

- ❖ Proper ownership/transfer of all rural water schemes must be put in place in all rural areas to ensure sustainability.
- ❖ Rural communities should get involved in all aspects of water supply delivery including planning, design, operation, management and ownership of water and sanitation facilities.
- ❖ WASHCOMS (according to UNICEF nomenclature) should be established in all rural communities to represent consumer interest and must be registered and/or corporate bodies
- ❖ Water rates and tariffs shall be established by WASHCOMS in consultation with the RUWASSA to ensure long term sustainability and easy access by the poor. Water rates and tariffs must be approved by the board of the agency in the absence of the regulatory body, to ensure that tariff reflects the economic status of the rural communities.
- ❖ Private Service providers in the rural areas shall be well regulated and monitored in order to guard against exploitation and further impoverishment of rural dwellers.

### 5.3.1 Delineation of a rural community:

A rural community shall be, among other appropriate descriptions, an area with all or some of the following attributes:

Community of not more than 5,000 people, and lacks most of the basic life support amenities.

In Anambra state, it may be difficult to demarcate, and delineate real rural areas.

Only very few communities in Anambra-West, Ogbaru, and Orumba-North can really be designated as rural communities.

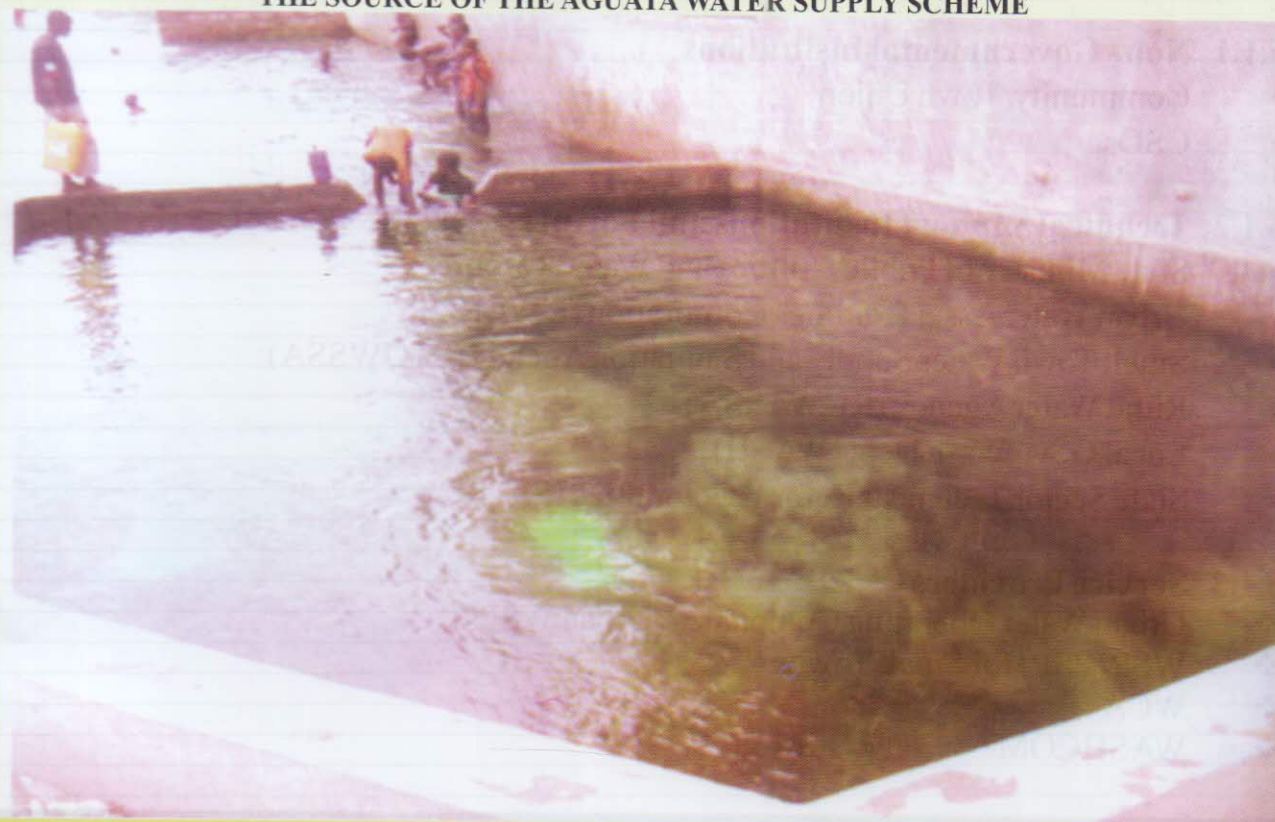




# Anambra State State Water Supply & Sanitation Policy



**OBIZI SPRING IN UGA:  
THE SOURCE OF THE AGUATA WATER SUPPLY SCHEME**







## CHAPTER SIX

### 6. INSTITUTIONAL FRAME WORK FOR WATER SUPPLY MANAGEMENT

#### 6.1 Government Institutions

- ❖ Federal Ministry of Water Resources
- ❖ State Ministry of Public Utilities-and Water Resources
- ❖ Ministry of Health
- ❖ Ministry of Environment
- ❖ Ministry of Agriculture
- ❖ Ministry of Economic Planning and Budget
- ❖ Ministry of justice
- ❖ Urban Water Asset Holdings Corporations (AnSWC)
- ❖ Small Town Water Supply and Sanitation Agency
- ❖ RUWASSA
- ❖ Local government administration
- ❖ Local Govt. Wash Dept.
- ❖ State Water Supply and Sanitation Regulatory Commission

#### 6.1.1 Non - Governmental Institutions

- Community/Town Union
- CSOs

#### 6.1.2 Technical Support Institutions and Partners

- State Ministry of Public Utilities and Water Resources
- Urban Water Asset Holdings Corporation (UWAHC)
- Small Town Water Supply and Sanitation Agency (STOWSSA)
- Rural Water Agency (RUWASSA)
- Local Govt. Wash Dept (WASH)
- State Sector Technical Reform Committee (SSTRC)

#### 6.1.3 Service Providers

- ❖ Urban Water Operating Companies (Urban WSPs)
- ❖ WSP (PSP) for Small Towns
- ❖ WCA
- ❖ WASHCOM





# Anambra State State Water Supply & Sanitation Policy

## 6.1.4 Support Agencies (Development Partners)

- ❖ External Support Agencies
- ❖ Civil Society Organizations

## 6.2 Institutional Roles and Responsibilities

One of the greatest challenges is to build competent, efficient business like and service oriented institutions. The key institutions and their roles are given below:

### 6.2.1 Ministry Of Public Utilities and Water Resources (MPUWR)

The Ministry of Public Utilities and Water Resources is responsible for the WASH sector co-ordination and development. The ministry will work to promote synergy in policy development and implementation, sector planning, financing, monitoring and evaluation. In the development of sector wide plans, the ministry will seek contributions from the urban, small towns, and rural subsector agencies, consumers, other water service providers, communities, the commission and other stakeholders.

The state government shall, through the ministry responsible for water resources, implement the short, medium and long term goals for the sector as articulated in the State Water and Sanitation Policy and Sector Strategy including periodic policy development and review, institutional reform, capacity building, and creation of necessary enabling environment for sector development.

### 6.2.2 Policy Statement

MPUWR shall focus on facilitating change and creating the enabling environment for success of the sector. This may include but not limited to:

- Policy formulation
- Coordination of sector activities
- Project financing
- Link to external agencies
- Data management
- Capacity building
- Community mobilization

### Roles:

- ✓ Formulation of policy in conjunction with relevant ministries and other stakeholder groups in the water and sanitation sector
- ✓ Financing of capital projects (rehabilitation of existing and construction of new)
- ✓ Ensure coordination of WASH sector activities.
- ✓ Long and short term planning and development of government programs.



# Anambra State State Water Supply & Sanitation Policy



- ✓ Promote water resource management in liaison with other organs in line with IWRM
- ✓ Provide link to ESA and FGN
- ✓ Disseminate information on water and sanitation sector.
- ✓ Support private sector participation.
- ✓ Monitoring and evaluation of state wide sector activities
- ✓ Supervision of all agencies involved and responsible for policy implementation.
- ✓ Certify the formation of WCAs, sign MOU and issue certificate.
- ✓ The Ministry of Water Resources shall issue permit before any new borehole is drilled anywhere in the state. This is in line with the directive of Federal Ministry of Water Resources, that the state commissioners for water resources shall issue permit before any new borehole is drilled This is necessary to check and keep track with hydrological exploitations and build the state database for investment planning, and sector master development planning.
- ✓ Maintains state-wide information data base, does state-wide planning and develops state- wide policies and programmes.
- ✓ Develops state-wide technical standards for the industry in conjunction with the WSA and the regulatory commission.
- ✓ Is a centre of knowledge of the water sector and disseminates information.
- ✓ The state government through the MPUWR shall carry out designated water sector regulatory functions to the extent necessary until the commission has a functioning board and a requisite level of qualified officers and employees necessary to perform such functions.

### **6.3 Urban Water Asset Holding Corporation (UWAHC)**

The antecedents of the State Water Corporation generated a lot of discourse among the stakeholders. The services provided by Anambra State Water Corporation were plagued by a series of problems which resulted in very low productivity. The utilization capacity of all installed schemes was only about 1 %. The corporation suffered from fundamental problems which included bureaucratic influence, poor maintenance culture, defective financing structure, gross mismanagement, and corruption.

The capital outlay to resuscitate the schemes and build new ones is huge. The only economically viable option is to adopt an acceptable private public involvement that will provide the fund, expertise and efficient management of the water system to guarantee sustainability in service delivery.

The new direction necessitated the creation of the Asset Holding Corporation, for management and control of assets and processes, while water service providers, the operating companies, tackle water delivery and services in the major urban centres, and





# Anambra State State Water Supply & Sanitation Policy

small town (regional) schemes in the state under the PSP arrangement.

The government is inclined to adopt the best approach in the supply of water to the major urban and metropolitan centres of Onitsha, Nnewi, and Awka by delegating and derogating service provision to water service providers, in a private public participation or joint venture arrangement.

The State Water Corporation is now to be known as Anambra State Urban Water Asset Holding Corporation (AnSUWAHC) The new entity may have the structure of the present Water Corporation but compact in size and with a different charge in the roles and responsibilities; shall be institutionally autonomous, professionally competent.

Shall enter into agreement with any person, group, or body for the management, supply, construction, manufacture, maintenance or repair of any water services assets or those assets to be added or later established, whether movable or immovable in accordance with the policy.

The Asset Corporation shall have power to hire staff and to fire

- It shall hold in trust for the government, the water facilities in urban areas of the state in accordance with the provisions of this policy.
- The Corporation shall delegate and derogate the function of service provision to water service provider(s), the operating companies in the three major urban centres in line with the provision of this policy and current global trend.
- The nature and mode of the arrangement shall be determined by the government in line with the PSP arrangement.
- Other technical staff of the water corporation who may not be in the new outfit will be encouraged to form water service providers WSPs.
- The non-technical staff who are not required in the new outfit may be absorbed by other government ministries and organs.
- The urban water body shall focus on urban water development and asset management
- The Asset Holding Corporation is responsible for the overall infrastructural development and service delivery in the urban centres in the state.
- However, the service delivery operations shall be undertaken by a professional competent private operating company under the PSP arrangement
- Identify water project for the provision of water services which may be undertaken with private sector participation in order to fulfill the water services obligation of the state, in the urban centres
- The staff of the present Water Corporation shall be re-professionalized to reposition it to undertake the new responsibilities of the Urban Water Asset Holding Corporation.



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## Roles

The Corporation shall enter into agreement with private operator(s) for the purpose of utilizing her assets for the delivery of water supply services to the residents in the urban areas of the state

- v. Develop and manage the existing and new water services assets in the urban areas of the state.
- v. Monitor and verify compliance by private sector participants with any project agreement.
- v. Procure water abstract rights for the purpose of abstracting water from any lake, stream, river or any other natural sources forming part of state water, and to do likewise in respect of other waters by arrangement with the appropriate authority under and in accordance with provisions of any existing law in that behalf and assign such rights to PSP in furtherance of any project agreement.
- v. Ensure the supply of potable water pursuant to project agreements with private sector participation.
- v. Ensure that regulated activities meet with standards set by the state regulatory commission.
- v. Ensure that the corporation remains socially responsible in the performance of its functions under the law.
- v. Prepare development plans for the urban water sector in consultation with the ministry in charge of water resources, the PSP operators in the urban areas as well as the consumers and other stakeholders for input into the state water sector development plans of the Ministry of Water Resources.

## 6.4 Small Town Water Supply and Sanitation Agency (STOWA)

The small town which includes the semi urban centres have a lot of broken down water schemes which must be addressed if we are to achieve coverage and sustainability. This agency is to be established by the state government. It is needed and shall be formed to develop water provision and management in the small towns. The agency shall assist the WCAs to develop water systems in small towns and ensure that hundreds of existing dysfunctional systems littered in the towns are kept operational and well maintained for sustainable service delivery.

Small Towns from the definition of the Federal Ministry of Water Resources, are communities whose population ranges from 5,000 - 20,000. About 70% of our communities fall within this group. The Small Town Water Agency shall:-

- ✓ Act as consultant and adviser to local government and WCAs
- ✓ In collaboration with the WASH department assists the WCAs to get organized and manage their water supply and sanitation facilities





# Anambra State State Water Supply & Sanitation Policy

- ✓ Provides expertise to the WCAs to enable them to operate and manage their facilities
- ✓ Develop long and short term plans for small town schemes for coverage and sustainability
- ✓ Compile comprehensive inventory of small town water supply and sanitation facilities
- ✓ Promote and devise appropriate low cost technology options for the water supply and sanitation options for the communities and small town communities
- ✓ The agency will assist the WCA within small towns with technical issues such as engineering studies to determine the size and cost of various systems and with construction and supervision. However, decision making capacity remains with the WCAs
- ✓ Small Town Agency shall manage the assets in small towns formerly under the custody of the state water corporation until the ownership of such schemes are transferred to the communities through the WCA
- ✓ Until the establishment of a regulatory commission for small towns, the board of the agency is charged with the responsibility of regulating water supply and sanitation in small towns
- ✓ The board shall allow community, private sector or other group or bodies or individuals to produce and sell water and collect tariffs under permit and in accordance with relevant regulations, standards and codes in the state
- ✓ In consultation with the Ministry of Water Resources transfer ownership rights over, (new and rehabilitated existing water supply schemes) to WCAs on certain agreed terms
- ✓ Issue guidelines on the parameter and maximum allowable limits in drinking water qualities as set down by the Nigerian Standard for Drinking Water Quality
- ✓ Facilitate the development of acceptable tariff systems that reflect the economic cost of service provision and is appropriate to the consumer and the service provider

## 6.4.1 Small Town Water Supply Scheme

Every qualifying small town in the state that has a water scheme, or is committed to establishing a sustainable service by constructing and providing safe water supply to its inhabitants shall be -

1. Vested with ownership of the water supply infrastructure. An agreement may be signed between the agency, (on behalf of the government) and the community.
2. Receive technical assistance from the Small Town Agency with regards to planning, including technical options of sitting the water scheme constructing





and managing the schemes, and may include consultant training and procurement services.

## 6.5 Rural Water Supply and Sanitation Agency

The Rural Water Supply and Sanitation Agency is responsible for rural water supply and sanitation in the state. Its role includes provision of potable water to communities in the state, improving the hygiene behaviour and ensuring improved sanitation coverage in rural communities. Others include, assisting local governments to take an inventory of existing water supply infrastructure, their state of disrepair, use and maintenance, establishing and maintaining capacity for drilling works in rural communities, organizing the training of persons at the community level for maintenance of hand pumps. Other roles include training local government staff to be able to maintain hand dug wells, and operate manual rigs. The agency trains sanitation artisans, community based hygiene officers, and carries out sanitation and hygiene education programmes. They also assist local governments in constructing low cost latrines such as sanplat, ventilated improved pit latrines in strategic places.

The RUWASSA is collaborating with UNICEF under the EU sponsored Water Supply and Sanitation Sector Reform Programme (WSSSRP) to provide potable water in rural communities through construction of boreholes. The agency together with UNICEF is carrying out extensive sanitation programmes which include the construction of low cost toilet facilities and trainings in communities and schools.

### 6.5.1 Policy Statement

RUWASSA shall focus on providing technical support to the WASHCOMs

### 6.5.2 Roles

For effective coverage of the entire rural water subsector to ensure a good responsiveness to water related problems, the rural water and sanitation agency shall be responsible for co-ordination of rural water supply and sanitation in the state and shall:..

Act as consultant and adviser to local governments and WASH:

- § In collaboration with the WASH department assist the WASHCOM to organize and manage their water supply and sanitation facilities
- § Provide assistance on technical issues like engineering, construction supervision, planning and budgeting
- § Compile a comprehensive inventory of rural water supply and sanitation facilities
- § Promote and devise appropriate low cost technology options for the water supply and sanitation options for the rural communities
- § Until the establishment of a regulatory commission for rural areas, the board of the agency is charged with the responsibility of regulating water supply and





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sanitation in rural areas

The board shall:

- § allow community, private sector or other group or bodies or individuals to produce and sell water and collect tariffs under permit and in accordance with relevant regulations, standards and codes in the state.
- § Accredit contractors engaged by the WASHCOMs to undertake construction services, operate and maintain water facilities.
- § Issue guidelines on the parameter and maximum allowable limits in drinking water qualities as set down by the Nigerian Standard for Drinking Water Quality (NSDWQ).

## **Roles and Duties of the Local Government:**

- Disseminate information on water and sanitation sector reform activities.
- Develop and maintain LG wide data base in association with the state.
- Support the formation of WASH department in the local government in line with reform directive and agenda
- Support the formation of the WASHCOMS in the communities within the local governments.
- Encourage private sector participation in water and sanitation activities with the local government area.

## **6.6 Water Supply, Sanitation and Hygiene (WASH) Department**

Water, sanitation and hygiene (WASH) is part of the integrated development in water supply and sanitation. Water supply impacts many sectors and hence decisions about WASH services affect other development areas. The Water Supply, Sanitation and Hygiene (WASH) units in the local governments in the state shall therefore, by this reform demanded to be upgraded to the status of departments. This will enable the local government to provide and manage water supply and sanitation in parts of the local government. This is one of the reform mandates and is predicated on the need to effectively impact the local areas.

### **6.6.1 Good Local Governance for Sustainable WASH Services**

Local governance is the set of policy frameworks, structures, relationships and decision making that takes place at the local level to deliver service particularly in water supply and sanitation sector. The sector key elements for sustained water, sanitation and hygiene services include:

- an enabling environment which at the local level includes the policies and bylaws within which water supply, sanitation and hygiene services are delivered
- Planning water supply and sanitation services



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- Good financial management
- Infrastructural development
- Institutional arrangements for providing the services (water service provider)
- Regulating the service according to policy and by-laws

## 6.6.2 Role of WASH Department:

The WASH department shall carry out and coordinate the following water supply, sanitation and hygiene activities within the LGA

- § Disseminate information on water sanitation & hygiene activities from the Federal Government, to the State and ESA to the WCA/WASHCOM and communities/small towns.
- § Facilitate the establishment of WASHCOM/WCA in the communities and small towns.
- § Shall register any new borehole to be drilled in the local Government on presentation of permit from the Ministry of Public Utilities and Water Resources.
- § Shall also carry out an annual renewal of all existing boreholes in the local government.
- § In conjunction with the relevant agencies facilitates capacity building of WASHCOM/WCA personnel.
- § Maintain the LGA WASH data base.
- § Monitor and evaluate WSS project within the LGA.
- § Assist the WASHCOMS and WCA in developing their Community Action Plan (CAP).
- § Facilitate the formation of WASH related committee within the communities and small towns especially the CLTS committees.
- § Establish and facilitate School Environmental Health activities in all schools.
- § Facilitate regular training of personnel of the WASHCOM /WCA on operation and maintenance of water and sanitation facilities.
- § Ensure regular reporting of the activities of the WASHCOM/WCA to the relevant agencies.

## 6.7 Water Consumers Association (WCA)

All water consumers in the rural, small towns, and urban communities shall elect or appoint a committee to act on their behalf and represent their interest in water supply, and sanitation services. The body so appointed shall be known as Water Consumers Association (WCA) for Urban and Small Towns and WASHCOMS in rural areas.

### 6.7.1 Conditions for Registration of WCAs

The Association shall not be registered unless-





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1. It is formed with the approval of the Ministry in charge of Water Resources
2. It has developed a WCA Constitution
3. It operates a bank account
4. Has in cash, a sum equal to a percentage of the capital cost as stipulated by the condition of the formation
5. Its members have been elected, by popular vote, an executive committee which must include at least two women. The following officers shall be elected:
  - a. Chairman
  - b. Secretary
  - c. Treasurer
  - d. Women's Representative
  - e. Scheme Supervisor, and
  - f. Sanitation Officer.
6. The formation shall follow standard procedures and guidelines, and the body shall be formally inaugurated

## **6.7.2 Duties of the Association** **The Association shall -**

- (a) Take ownership of the infrastructure for supplying safe water to its members
- (b) Choose the type and service level for water supply to the local community based on what its members want and willingness to pay for the infrastructure and sustain the water scheme
- (c) Plan for the siting, construction, management and future growth of the water supply scheme in its local community
- (d) Determine a water rate that ensures the recovery of the full operating and maintenance cost of the water supply scheme
- (e) The WCA is charged with the responsibility for the operation and maintenance of the water supply and sanitation schemes in their communities
- (f) WCA is accountable to the consumers; and by extension to the village and community where they operate, and should have proper representation from women and youth

## **OTHERS DUTIES OF THE WCA**

- ⊙ With large schemes covering more than one community the WCAs from the benefitting communities shall have a representative in the scheme management board. The WCA of the benefitting communities may form a committee for maintenance of the trunk lines and the collection of tariff on the bulk water supplied to the community.





- The WCA can engage staff or hire a WSP to carry out some of its system operation and maintenance functions for each town and shall handle the local extensions and other private connections within their area of operation.
- Take ownership of the infrastructure for supplying safe water to its members; and undertake the community water supply sanitation and health education services.
- Participate in planning, design, construction and management of safe water and sanitation facilities in the community.
- They shall be the watch dogs in the villages, towns/communities for monitoring the sector related activities in those areas particularly new borehole development in their communities. No person shall drill a new borehole without permit from the ministry in charge of Water Resources.
- Encourage members to improve the general sanitation of their respective households and the local community.
- Devise campaigns and strategies for empowering members to participate in its activities and the attainment of her objectives.
- Ensure the adequate representation of women in the local community in all its activities.

## 6.8 Water Sanitation and Hygiene Committees (WASHCOMS)

### 6.8.1 The Function of WASHCOMS

- They shall be formed in the rural areas as the village level water and sanitation committees for the management of water supply facilities on behalf of the community.
- Enhance community ownership of WASH facilities and be responsible for determining the cost of operation and maintenance of water points in the rural areas,
- Be responsible for setting and collection of water point tariffs for the operation and maintenance of the water points
- Be responsible for community basic hygiene education, community sensitization activities, and community advocacy.
- Collaborate with the WASH department of the local government authority and the RUWASSA on water supply, sanitation and hygiene Programmes of the federal, state or local governments on behalf of the community.
- Undertake all necessary and relevant hygiene/sanitation promotion, and education in the community in collaboration with the RUWASSA and the local government WASH departments,





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- Encourage development of skills of members to promote community participation with the active involvement of women,
- Participate in planning, design, construction, operation of community facilities.
- Promote household food and water security in the community by encouraging prudent use of water and preventing wastage
- Support the Immunization/nutritional supplementation of children in the community. Contribute to the eradication of water supply and sanitation related diseases in the community.
- Mobilize the community to take active part in the construction of water supply and sanitation facilities.
- Collaborate with the WASH departments in the preparation of the WASH development plans for the community and shall be trained to perform this role by the RUWASSA.
- Shall promote community led total sanitation in the community.
- Ensure that the community contributes to the financing of small scale water supply facilities or extension schemes.
- Participation in project design and implementation.
- Be responsible for policing of water infrastructure to report leakages and protect it against vandalization,
- Implement the state policies on water and sanitation in the local governments and promote health and hygiene education in the communities through the provision of water sanitation management.
- Ensure adequate funding of WASH activities in LGA

## 6.9 Water Service Providers (WSPs)

Water service providers are those bodies who are in the business of providing water and sanitation services to the people. According to WIMAG, Water Service Providers include;- State Water Agencies, (SWA), Water Consumers Associations (WCAs), and Water and Sanitation Committees (WASHCOMs). Other private operating companies include: private water scheme owners (e.g. sachet water companies), water vendors, community water schemes groups etc. These groups and the private sector operators are well known in the state.

Henceforth, the water service providers should be corporate or registered entities who effectively carry out among other things, the servicing and rehabilitation of utility facilities assigned to them or on behalf of the community or from another body. The sole purpose for engaging them is to ensure continuous and satisfactory service provision. This means that the group must have relevant personnel and must hold valid WSP



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license as shall be required by the regulator.

## 6.9.1 Conditions for Registration

For any WSP to be registered by the regulatory commission or the town water schemes (regional), it shall

- Obtain a no objection approval/certificate from the Ministry of Water Resources before proceeding to obtain permit / license from the regulatory commission.
- Shall meet other qualifying conditions stipulated by the regulator in the provision of urban water supply.
- In the case of the WCAs and WASHCOMs, qualifications shall be by registration either as a co-operative society or by incorporation.
- A WSP is required to implement the planning, management and operating principles and actions in the policy or by- law so as to progressively improve' financial and operational performance with the target set out in the policy or MOU and includes to :
  - Expand service coverage according to the development plan
  - Improve water quality
  - Improve operational efficiency
  - Improve operation and maintenance
  - Improve revenue collection, performance and cost efficiency
  - Protection of the environment

## Roles

Local WSPs shall be able to carry out operation and maintenance of facilities, Provide expertise to WCAs to enable management and operation of facilities WSPs shall be autonomous and accountable to their customers. For urban and small town schemes with regional character, the WSP shall ensure compliance with the regulatory guidelines set by the state regulatory commission. The WSP must be knowledgeable and should have experience and expertise in water service operation and management.

## 6.10 Independent Water Supply and Regulatory Commission

The quality, quantity and reliability of the water supply and its cost should be regulated. Drinking water must be clean and ensure public health and safety. Service levels should be clearly enunciated and met. Prices should be controlled to protect not only the public interest and from exploitation, but also to give investors and providers a fair return for the investment of their time, expertise, ingenuity and capital.

A regulatory body will be established by the government and be called Anambra State Water Supply Regulatory Commission (ASWSRC). The regulatory commission shall





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regulate water supply for urban water supply and small town regional schemes only in the interim.. The ANWSRC shall

- Be an independent body established by legislation with Board appointed by the Governor.
- Funded by fees and tariff surcharges in urban and small town areas and government grants.
- Establishes and enforces regulations and standards for water supply in the state.
- Adjudication in disputes between the consumers and providers (WCAs, WSPs, WSAs in the sectors.
- Registers all water service providers (as approved by the Ministry in charge of Water Resources)
- Balances the interest of the providers and consumers.

## **Policy Statement**

The regulatory body will issue regulations on demand management of water supply including production criteria.

### **6.10.1 Functions and Powers**

- a. Promote the right of access to basic water supply
- b. Approve tariff charged by service providers in urban works
- c. Issues water Licenses to service providers after the Ministry of Water Recourses had issued no objection certificate to the WSP
- d. Promote private partnerships
- e. Promote the protection of watershed
- f. Adjudicate in disputes between stakeholders in the sector.

Until the establishment of a regularly commission for small towns and rural areas, the board of the relevant agencies is charged with the responsibility of regulating water supply and sanitation activities in their areas.

### **6.11 NGO Participation**

An NGO is a legally constituted non-governmental organization and is run by natural or legal persons that operate independently from any government. The nongovernmental organizations (NGOs) are non-profit organizations that work to promote human good while operating separately from any government.

Some NGOs also have consultancy status. The vital role of NGOs and other groups in promoting sustainable development was recognized in Chapter 27 of Agenda 21 of the United Nations Charter. NGOs responsibilities have been diversified and include humanitarian issues, developmental aid, sustainable development etc. There is an



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increasing awareness that the management techniques being advocated by non-governmental organizations are critical success factors in project execution and management.

The NGOs that operate in the state include civil society organizations (CSOs), community based organizations (CBOs), the faith based organization (FBOs) etc. Some non-governmental organizations have either a community or environmental focus. They address a variety of issues, mobilize public support and have strong link with community groups. Some NGOs are concerned with poverty alleviation and provide needy people with the equipment and skill to find food and clean drinking water.

These non-governmental organizations have shown strong technical and community development skills that could be harnessed and expanded for the benefit of the water and sanitation sector. Most of the NGOs in the state do not have the support needed to function effectively. Enabling environment shall be created for the effective organizational and institutional support to the NGOs so that they can effectively increase their participation in the water and sanitation sector. Some areas of NGO involvement include:

- Advocacy and Mobilization
- Health, hygiene education and sanitation promotion in schools. Training and capacity building
- Sourcing and providing necessary finance for projects Bridging existing gaps between government and communities.

## 6.12 The Role of Government

The state government represented by the Ministry of Public Utilities and Water Resources is responsible for policy formulation for the sector. It is also responsible for macro investment planning, setting standards, and coordination of sector activities. The ministry also collaborates with national and international organizations. The focus of the government is on regulation, facilitating change and creating enabling environment for agencies and the private sector to deliver services. This policy therefore recommends government disengagement from being a service provider. However, government can intervene and carry out special projects as the need arises. The roles of the various service providers have been discussed. The reform thrust is to re-professionalize the institutions for effective service delivery.

### *The Functions Of The Government Is Stated As Follows:*

- Government shall be an enabler rather than top down manager of the water resources.
- Formulate policies.





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- Enact water resources legislation.
- Separate service provision and regulation.
- Encourage the private sector.
- Provide fund for capital projects, subsidies and grants
- Performance evaluation and monitoring shall be an essential oversight responsibility.
- Approves and qualifies service providers to be involved in service provision in the state.

## 6.13 Water Services Development Plans

- (1) Every water supply service operator and institution, whether public or private, government owned and communities shall be involved in the preparation of an integrated water supply and sanitation development plan for the state water and sanitation sector. This shall be carried out in consultation with the consumers served, the local government WASH Department, the community, and other stakeholders. Each group shall be involved in preparing the WSS development plan for its area of jurisdiction.
- (2) The draft plan thus prepared shall be submitted to the ministry responsible for water resources to be integrated into the state water and sanitation sector development plan.
- (3) The plan shall be approved at a meeting of all stakeholders and the Anambra State Water Regulatory Agency (ASWRC)

### 6.13.1 Duty to Prepare Draft Water Services Development Plan

Every water services provider shall prepare and submit a plan within one year of its operation.

- (a) A draft water services development plan for its area of jurisdiction to the ministry and the regulatory commission
- (b) Establish a simplified planning questionnaire, for different water service providers such as water services committees or water services intermediaries.

### 6.13.2 Content of The Water Services Development Plan

- 1 Every draft water services development plan must contain details of the physical attributes of the area to which it applies;
  - i. Of the size and distribution of the population within that area;
  - ii. Of a time frame for such plan, including the implementation programme for the following five years;
  - iii. Of existing designated water services (including details regarding pressure,



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- availability, unaccounted for water losses, interruptions in service due to power failures);
- iv. Of vendors in the area providing designated water services without a WSP license;
  - v. Of the estimated number and location of persons within the area who are not being provided with basic water services.
  - vi. Regarding the future provision of designated water services, including-
    2. The persons expected to provide those designated water services; agreements and proposed PSP agreements with such persons;
    3. The proposed infrastructure necessary;
    4. The estimated water sources to be used and the estimated quantity of water to be obtained from and discharged into each source;
    5. The estimated capital and operating costs of those designated water service and the financial arrangements for funding those designated water service including the tariff structures;
    6. Any water services institution that will assist such persons; the operation maintenance, repair and replacement of existing and future infrastructure;
- i. of the number and location of persons to whom designated water services cannot be provided within the next five years, setting out- the reasons; and the time frame within which it may reasonably be expected that basic water services will be provided to those persons;
  - ii. of the existing and proposed water conservation, recycling and environmental protection measures;
  - iii. of the estimated funding needs in excess of estimated revenues from tariffs and other reasonably anticipated sources to achieve such projections





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## CHAPTER SEVEN

### 7 SOURCES OF WATER SUPPLY SYSTEMS

#### 7.1 Water Resources Cycle

Water is made available by the natural hydrologic cycle. Water bodies provide habitats for aquatic life and riparian systems provide moisture for vegetation and terrestrial biota, transporting nutrients between one ecosystem and another. Large water systems provide regional and climatic weather services. Large-scale withdrawals or transfers of water can change ecological conditions and thus the institute benefits of a water body. The water system hydrology is the totality of surface and ground water, which belong to the natural environment. The water chain lies in the sphere of public utilities, comprising the drinking water supply, sewage and the waste water treatment, making up the water management cycle. The future management and use of water systems will be regulated to fully harness the benefit of the relationship between the water chain, the water system and the environment. The water quality sector is faced with a lot of problems mainly due to management issues.

By management, we refer to the process of achieving the set goals and objectives through efficient use of resources. With right institutional framework, some of the issues could at least begin to be addressed. Main sources of water are rivers, streams and lakes, spring waters and boreholes. Rainwater is part of the water system, even though it is clear that the possibilities of controlling it are limited. Rainwater can enter the water system or the water chain in various ways. It can fall on surface water or enter groundwater via the soil. The rainwater is 'an element of the water system' that does not really belong to the water chain.

#### 7.2 Surface Water Hydrology of Anambra State

Anambra State is drained principally by a number of rivers which include River Niger, Anambra River. Others are Idemili and Mamu, Ulasi rivers, Obizi, and Nkisi stream etc. These rivers and streams with their attendant catchment sub-basins, drain into the River Niger, and then to the Atlantic Ocean. The rivers are of different size and are mostly perennial. A good number are large and run across a number of towns or local governments. It is important to note that a particular river running across local governments may have different names at different areas. The Anambra River covers the eastern part of the State. The River is fed from many riverlets or tributeries which include the Ezu River, which is also called Mamu River in Orumba and Aguata LGAs. But in Awka North area, it is called Ezu. Together other small local riverlets / tributeries which include Aghonmili, Awdaw and Haba flow and built up the Anambra River. The



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Anambra River is most prominent at Otuocha in Anambra East local Government, where the volume and discharge could be estimated at about 450m<sup>3</sup>. per min. (100,000 gallons per min). The Idemili River is another major river. It is fed from the hinter areas. Agulu Lake is a major feeder to the Idemili River. The Ulasi river covers the southern and south western part of the state. a major tributary is the Ubu River which run across Nnewi North and South LGAs. There are other local streams and rivers. Ulasi is most popular in Ihiala area.

### 7.3 Ground Water Resources

Anambra State is traversed by four geological formations from which groundwater is tapped in the state. The geologic formations include:-

1. Ameki/Nanka Formations,( outcrops mainly at Aguata, Orumba, Anaocha areas)etc.
2. Imo Shale Group (parts of Awka, Ayamelum, Orumba North) etc.
3. Lignite Formation (Ogwashe-Asaba Formation,) Nnewi, Ekwusigo and parts of Ihiala.
4. Coastal Plain Sand Formation is traversed Ogbaru and Anambra West etc.

There is no sharp dividing line between these geologic groups.

Groundwater is the current source of water supply in the state mainly from the government and unorganized private sector in the urban, small towns, and rural areas. All the small town water schemes are borehole driven, water Scheme are yet to be developed. The borehole driven functional water schemes include; Nibo- Nise, Agulu-Aguinyi, Nimo-Enugu-Ukwu-Abagana, Awkuzu, Njikoka, Ozubulu, Azuigbo-Amichi-Ukpor water schemes, etc. There are currently more than 1,500 boreholes in the state. In areas where the groundwater resource is deeply seated, and out of reach as in Aguata LGA, rain harvestation had been the main strategy for all year water supply.

With the rehabilitation of the Obizi stream at Uga, the Aguata area now has an alternative to borehole development.

### 7.4 Artesian Borehole Prospects in The State

There is great potential for artisan development in some towns in Anambra State. In Eziagu Local Government of Enugu State, towns like Mgbagbu-Owa, Agba-Umuna and Umuna Ndiagu had prolific flowing artesian wells. These towns share common border with Ebenebe in Awka North L.G.A. Also the massive artesian flow that supplement water supply in Enugu Metropolis came from twelve artesian boreholes at Ugwuoba in Oji River. Ugwuoba shares boundary with Amansea, in Awka North L.G.A.

There are other artesian boreholes in Enugu Agidi. Plans are still underway to pipe this into the Awka Metropolis. Also, artesian wells have been punctured in Amansea and Awka, near Nnamdi Azikiwe University. Artisan Boreholes could be developed in the





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fringing towns of Amansea and Ebenebe bordering south western part of Enugu State. A good development of artesian wells could provide in-the-short run, sustainable potable water supply for Awka Metropolis.

## **7.5 Is Water A Renewable Resource?**

In most forms, water is a renewable resource since its continued flows is not affected by withdrawals or use. However, not all natural waters are renewable and renewable waters can become non-renewable by human actions such, as contamination, watershed modification, or extraction in excess of inflow rate. A renewable resource is one that is replaced by natural processes at a rate that is equal to or faster than its consumption. For example, the wind, the tides, and the sun, are all resources that can be utilized and are in no danger of being diminished. These resources will always be available, despite the consumption level. Resources such as coal, petroleum, solid mineral resources are non renewable. These natural resources are closely monitored in order to avoid over-exploitation, and thus deprive the resources of their renewability. Water in many cases is considered a renewable resource because it is renewed naturally on a consistent basis. Due to the necessity for water increasing demand due to continuous rise in earth's population, the consumption rate needs to be monitored in order to ensure fresh water's availability and thus its renewability. When, however, the demand for water outstrips the sustainable replenishment and renewability, water may no longer be recognized as a renewable resource. Instead, it becomes a non-renewable resource in that specific location. The monitoring of ground water levels and consumption rate is a necessary task to ensure water's sustainability.

## **7.6 Climate Change and Water Supply**

Water resources have always varied in time and space. Drainage patterns, flora and fauna have developed accordingly along drainage routes. The core business of water resources management is about coping with variability, the dynamic characteristics of the hydrological cycle. A changing climate is directly felt in the water sector; consequently, much work on adaptation and building resilience needs to be done through the water sector. Climate projections provide abundant evidence that freshwater resources are vulnerable and have the potential to be strongly impacted by climate change, with wide-ranging consequences for human societies and ecosystems.

## **7.7 Borehole Standards and Permit**

The number of water facilities in the state, particularly boreholes shall soon be established. The knowledge of the number of boreholes in the local governments, and, in the entire state will be necessary in building the state data base. There is need to know the number of boreholes drilled, functional and dysfunctional. The WASH department shall



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collect the renewal charges from their respective local government areas after the borehole had been properly registered with the appropriate government organ(s).

Any entity or individuals wishing to construct a new borehole must obtain a permit from the Ministry of Water Resources before embarking on the venture. Environmental suitability of the area shall be examined. The practice will enable the government to keep track with abstraction rate and also build a data base for the use of government in developmental activities. The WASH coordinators in the local governments must ensure that any new boreholes without relevant approval are reported for necessary sanctions.

All water supply boreholes in the state shall be designed and constructed in accordance with Code of Practice for Water Well Construction, as approved by Nigeria Industrial Standard (NIS)

## **7.8 Dams and Reservoirs**

Dams are important structures for storing water, thus regulating flows and containing floods. They are therefore, important economic factors for the provision of water for economic activities and as checks against flooding that would otherwise destroy life and property. Dams are important for all year round agricultural produce and the construction of medium and small scale dams are strongly desirable. Presently there are few small earth dams in the state. The importance and need for dams are many and include to;-

- Ensure the availability of surface water for its different socio-economic uses.
- Irrigation and all year round food production can only be possible through provision and Release of water to farms.
- Large scale fish farming shall be possible through supplies from the dam.
- For proper harnessing and utilization of the vast water resources of the state.
- Dam shall provide all year water supply source.
- Mechanized farms may not be productive without a dam.





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## CHAPTER EIGHT

### 8. SANITATION

#### 8.1 Sanitation and Hygiene

Improved health is one of the integral benefits of improved water supply. However, health benefits from water supply will have multiple good impacts when taken together with sanitation and hygiene education. It is therefore important that water supply, sanitation, hygiene and health education are taken as an integral part of the proposed policy. This is sanitation that is efficiently carried primarily through the transport of water. It also includes safe excretal disposal and general hygiene education, cleanliness of living area environment through the use of water, and construction of toilet facilities.

#### **Policy Statements:**

Sanitation and hygiene are integral components of improved health through better water supply and therefore is a priority in the state Water policy. All relevant stakeholders in water supply, health education, and environmental sectors shall participate in the development and delivery of sanitation and hygiene education and promotion.

Sanitation and hygiene education shall be primarily funded by the 3 tiers of government, with contributions from other stakeholders, including communities, the private sector, NGO's and external support agencies. Sanitation and hygiene education and promotion activities shall be monitored regularly.

#### 8.2 Community Led Total Sanitation

Community Led Total Sanitation (CLTS) "involves facilitating a process to inspire' and empower rural communities to stop open defecation and to build and use latrines, without offering external subsidies to purchase hardware such as pans and pipes.

Through the use of participatory rapid approach (PRA) methods, community members analyze their own sanitation profile.

The principal elements of CLTS as explained above include, participatory rapid appraisal, community effort, no subsidy, focuses on total open defecation free community, depends on community initiative and capacity, aims at behavioral change among the people. It is about good facilitation process and does not prescribe any model facility that may be unaffordable to the communities.

#### **What Has Been Achieved and Challenges**

In communities where this was carried out, open defecation has ceased to take place. In



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these communities, with toilets, hand-washing arrangements, and clean environment, there is drastic reduction in malaria, diarrhea, and dysentery diseases. Girls and women's dignity has increased as they don't need to go to the bush with the chances of being seen and the fear of being assaulted and even raped.

Adoption of CLTS as one of the approaches for the scaling up of sanitation in rural sanitation and hygiene by the State.

CLTS is not about latrine technology and models, but a process that focuses on encouraging communities to stop defecating openly.

### 8.3 School Hygiene

Children spent a significant amount of time in and around their schools. Such situation has a major impact on their wellbeing.

When a school lacks access to basic water supply and sanitation facilities, its student are likely to have poor hygiene habits. The unsanitary conditions typical of many schools toilet will send children the wrong message about the importance of sanitation. For many rural children who do not have toilet at home, the schools' toilets would be their model for sanitation. Hygiene, sanitation and water supply in schools can create the physical learning environment that benefits health and learning. Provision of adequate water supply and appropriate sanitary facilities in schools can be especially effective in reducing the incidence of diarrhea and helmet infection.

A healthy school environment that optimizes children's learning capacity results when hardware construction and rehabilitation of sanitary facilities) is combined with software (including provision of hygiene education and training for the operations and maintenance of (WASH) in school initiative is part of the overall community level focus. It enhances children's knowledge and practice regarding safe water, sanitation and hygiene and their link to health is now imperative leading to School Led Total Sanitation (SLTS).

Schools can play an important role in bringing about behavioural change and promote better health and they can bring the practices back to their families and lead to changes in community, acting now as change agents and role models

### 8.4 Communication Strategy for WASH

The strategic communication for water supply, sanitation and hygiene is to attain a positive behaviour change in hygiene, sanitation and use of safe water among the stakeholders to meet broad objectives to increase coverage and improving hygiene practices, use of safe water, sanitation and hand washing at critical times. These include but are not limited to the following:

- Increase mass awareness level and make the identified target audiences more





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conscious about the issues relating to hygiene, sanitation and safe water. This will create an overall positive environment to facilitate community mobilization.

- Increase awareness and knowledge of the linkage between safe water, hygiene, sanitation and health. To achieve the desired impact, the communication will have to be structured in such a manner as to deliver the necessary information and increase the awareness levels.
- Discourage open defecation and stimulate toilet usage by establishing an informed knowledge about sanitation options. The key issue is the need to create and stimulate demand through promotional campaigns. Demand based approaches  
Focus on what people want, but are limited by what they know.

## 8.5 Environmental Health Clubs

Environmental Health Clubs (EHCs) have been formed in schools in the state. The credit of that development came from the integrated work of the WSSSRP, the ASUBEB, and the Ministry of Education. Their work will significantly reduce hygiene related diseases, contribute to dignity and gender equity. It involves providing safe and secure environment that can provide protection from health hazards and abuse. Construction of friendly hygiene and sanitation facilities which may stimulate learning and development also address the gender related needs and encourage hygiene behaviour.



## CHAPTER NINE

### 9. CROSS CUTTING ISSUES

#### 9.1 Water Safety Plan (WSP)

A Water Safety Plan (WSP) is an effective means of consistently ensuring the safety of a drinking-water supply through the use of a comprehensive risk assessment and risk management approach that encompasses all steps in water supply from catchment to consumer. The plan identifies risks from catchment (water source) to consumer and prioritizes the risks so as to mitigate them through control measures. The system assessment identifies hazards and assesses risk (probability of occurrence and severity of outcome) Risk assessment allows prioritization of risks that must be controlled as scaled, (significant, uncertain or insignificant)

Water Safety Plan are essential actions that are the responsibility of the drinking water provider in order to ensure that drinking water is safe.

#### 9.1.1 Objectives and Importance

To formulate a suitable approach that would integrate WSPs in the process of mobilization and development of sustainable water supply services, managed by WASHCOMs and WCAs. The primary objective of a water safety plan is to ensure safe drinking-water by:

- Preventing contamination of source waters;
- Treating the water to reduce or remove contamination that could be present to the extent necessary to meet the water quality targets; and
- Preventing re-contamination during distribution, storage and handling of drinking-water.
- To ensure capacity of relevant water agencies and State Ministry of Water Resources, Environment and Health to fulfill their regulatory responsibilities;
- The import of WSP is to ensure that water quality is guaranteed at all times by keeping away potential pollutants. The NSDWQ stipulates and insists that all systems producing drinking water must have a WSP prepared. WSP is mentioned several times in the standard.

A Water Safety Plan (WSP) comprises three essential components that are the responsibility of the water operator in order to ensure that drinking-water is safe. These are:

- A comprehensive system assessment to prioritize the health hazards Involved
- Effective operational monitoring to facilitate timely intervention





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- A management plan describing actions to be taken

## 9.1.2 Sanitary Inspection

A sanitary inspection consists of a systematic review of possible hazards that may occur in the water catchment area, the water source and the water supply system. Preferably, this is done by experienced sector staff, together with community members and staff from the local organization responsible for the management of the system. After some training, subsequent inspections can be carried out (several times per year) by the local operator or water committee without external specialist support. The inspection aims at identifying all the hazards that are potential and actual causes of contamination of the supply. It is concerned with the physical structure of the supply, its operation, and external environmental factors. It involves looking at all water sources and systems in a community (water catchment area, well, hand pump, water intake, transmission main, treatment system, water storage, distribution network and water use) to identify possible risks for the users (WHO 1997).

Sanitary inspections are the basis to establish corrective actions in the system. The comprehensive system assessment aims to determine whether the drinking-water supply chain (up to the point of consumption) as a whole can deliver water of a quality that meets the prevailing targets. It includes the systematic and detailed assessment and prioritization of hazards in the system as a whole.

## 9.2 Watershed Management in the State

A watershed is an area of land that drains water flows to the lowest point such as a stream, river, wetland, lake, or ocean. Watersheds collect rain and funnel the run-off water across the landscape. In the technical sense, a watershed refers to a divide that separates one drainage area from another drainage area. But application has been broadened. They appear in many different shapes and sizes, they can represent the area draining to a small stream or to an ocean and can be comprised of many land uses including forests, farms, towns and cities. Everyone lives in a watershed.

### Why are watershed so important?

We live, play, and raise our children in watersheds. Our drinking water comes from watersheds. Our watersheds provide resources for the economy, recreation, and wildlife. Everything that we do on the land is within a watershed.

Watershed management is the process of creating and implementing plans, programs, and projects to sustain and enhance watershed functions that affect the plant, animal, and human communities within a watershed boundary. Features of a watershed that agencies seek to manage include water supply, water quality, drainage, storm water runoff, water



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rights, and the overall planning and utilization of watersheds. Landowners, land use agencies and communities all play an integral part in the management of a watershed. This Action Area (AA) addresses the issues of degradation of natural resources, soil erosion, landslides, floods, frequent droughts, desertification, low agricultural productivity, poor water quantity and quality and poor access to land and related resources from an integrated watershed management perspective.

Watershed management therefore represents all manner of activities within our environment. It therefore calls for concern to all forms of environmental degradation around us. Action shall be taken to sustain environmental stability.

### 9.3 Environmental Protection

Construction of new water supply systems as well as operation of water supply systems needs to be carried out such that environmental impacts are minimized. An Environmental Impact Assessment (EIA) should be conducted before any scheme development. Nigerian environmental laws and regulations will apply to avert environmental damages. Also, water resources need to be protected from pollution and contamination. Co-ordination is required with the Ministry of Environment in collaboration with Ministry of Public Utilities & Water Resources. Contamination of water courses is currently a real problem in some parts of the state, particularly in Onitsha, Anambra West and Ogbaru areas and needs to be addressed with seriousness before they develop into epidemic proportions and other severe problems.

### 9.4 Water Quality and Management

#### 9.4.1 Water Quality Management is based on the comparison of water quality With criteria and standard

Criteria are a scientific requirement on which a decision may be made concerning the suitability of water quality to support a designated use.

Standards on the other hand are prescribed limits of pollution which are established under standard authority (e.g. Nigerian standard for drinking water quality under the auspices of the Standard Organization of Nigeria). Standards however are derived from criteria. Another critical issue is that of **Water Quality Objective (WQO)**, which involves set levels of water quality parameters created to attain a goal.

The WHO drinking water quality standards shall be the baseline for the national drinking water quality standard.

All water works serving 5,000 citizens and above are to be equipped with a functional water quality laboratory of appropriate capacity.

The regulatory authority must have the authority to determine whether a water supplier





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is fulfilling its obligation.

## 9.5 Water Quality And Institutional Framework: Roles, And Responsibilities

- **State Ministry of Health:** works under the umbrella of the Federal Ministry of Health to develop health targets, monitor water related diseases, outbreak detection and trends.
- **State Ministry of Water Resources:** Assesses the quality of surface water and groundwater and provide guidance for the selection and site of new water sources for drinking water supply. In conjunction with the Ministry of Environment, establish protection zones, assist water agencies to rehabilitate and improve water supply infrastructure and provide data to FMH and other agencies.
- **State Ministry of Environment (SMEnv):** Protect zones of new water sources in collaboration with SMWR. Control activities conducted in the protection zones. Inform SMOH and drinking water service providers of any contaminations occurring in the protection zones and protects, restores, and preserves watershed.
- **Local Government Authority:** The LGA WASH department shall be the principal regulator for compliance with the NSDWQ. They shall conduct regular sanitary inspections of systems and household water storage and perform simple water quality test.
- **Communities:** To protect, operate and maintain their water systems, conduct regular sanitary inspections of the water systems and report to the ministry or the regulatory commission any changes in water quality.

## 9.6 Integrated Water Resources Management

Integrated Water Resources Management (IWRM) is a process which can assist countries/states in their endeavour to deal with water issues in a cost-effective and sustainable way.

Many countries face challenges in their struggle for economic and social development. These challenges are increasingly related to water shortages, quality deterioration and flood impacts. These are among the problems which require greater attention and action. The concept of IWRM has attracted particular attention following the international conferences on water and environmental issues in Dublin and Rio de Janeiro held in 1992.



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IWRM promotes the coordinated development and management of water, land, and related resources in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of the vital ecosystem.

The main challenge is how to create a balance between water for drinking, sanitation, health, food and other economic activities while maintaining the resource base-, both surface and groundwater and biodiversity.

Nigeria is facing several water problems such as flood and droughts. Increasing population with its demand on water and sanitation services, rural poverty, food insecurity, infant mortality, environmental degradation and increasing competition for potable water supplies are part of the challenges of the nation's socio-economic development goals. Adopting an integrated approach to water resources development and efficient management through integrated water resources management (IWRM) measures will help ease the problems of water shortages. Water is the single sector investment with multi level sector returns.

Financing is poor and options are expensive. Current approaches are sectoral and fragmented. A paradigm shift from sectoral to cross-sectoral water management is now being adopted, which will bring holistic response to the challenges facing our future water resources.

By directly impacting key indicators in health, education, agriculture, food security and environment sectors, water has profound impact on quality of life indicators, and a major determinant of productivity and poverty levels.

To stimulate the adoption of a more strategic and sustainable approach to water resources management, the 2002 World Summit on Sustainable Development resolved that all countries should put in place integrated water resources management frameworks and water efficiency strategies by the end of 2005.

## **9.6.1 The principles of IWRM are summarized below;**

- Water is a finite and vulnerable resource, essential to sustain life, development and the environment and should be managed in an integrated way.
- Water development and management should be based on a participatory approach, involving users, planners and policy makers at all levels.
- Women play a central part in the provision, management and safe-guarding of water.
- Water has an economic value in all its competing uses and should be recognized





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as an economic good.

- IWRM and water efficiency is predicated on the need to catalyze and regulate water resources development towards positive change. To achieve this requires the following:-
  - ✓ The programme must enjoy the highest political support and participation
  - ✓ Lay foundation for more co-ordinated decision making across the sector
  - ✓ Involve all stakeholders
  - ✓ Put in place a realistic plan of implementation that includes a clear definition of roles and responsibilities, a sound financial strategy and provision for capacity building.
  - ✓ Ensure an effective system for monitoring, evaluation, and regulation.
  - ✓ Anambra State is blessed with both large volume of surface water, spring water and geologic formations that hold in store a very large volume of underground water. In spite of the abundant rivers and streams, potable water is still a major issue and a scarce commodity.

## 9.6.2 Some of the principal components of IWRM:

- Managing water resources at the basin or catchment level: This involves integrated management of land, water (upstream and downstream, groundwater, surface water) environmental and coastal resources on basis of Hydrological Area rather than use of political boundaries.
- Optimizing supply involves conducting assessments of surface and groundwater supplies, analyzing water balances, adopting wastewater reuse, and evaluating the environmental impacts of distribution and use options.
- Managing demand includes adopting cost recovery policies, utilizing water-efficient technologies, and establishing decentralized water management authorities.
- Providing equitable access to water resources through participatory and transparent governance and management. This may include support for effective Water Users' Associations, involvement of marginalized groups, and consideration of gender Issues. Establishing improved integrated policy, regulatory and institutional frameworks e.g implementation of the polluter-pays principle, water quality norms and standards, and market-based regulatory mechanisms.
- Inter-sectoral approach to decision-making.  
Inter-sectoral approach is the new order where authority for managing water



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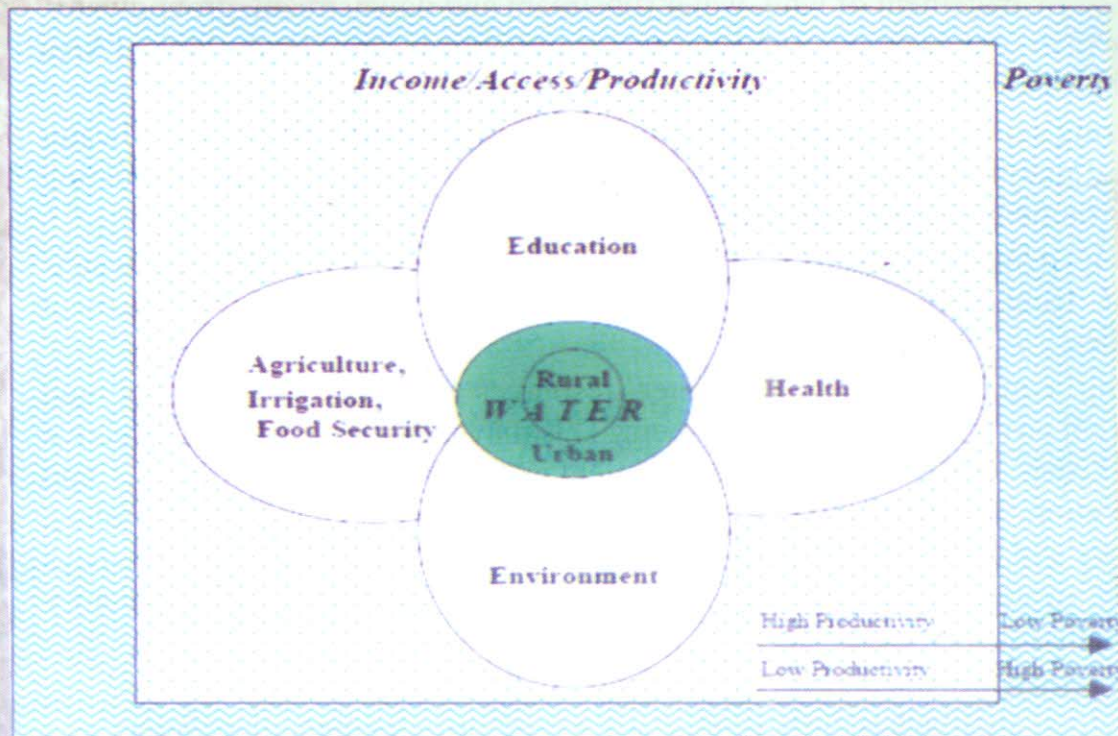


resources is employed responsibly and stakeholders have a share in the process. There shall be established an Integrated Water Resources Management Committee/Coalition (IWRMC) to co-ordinate IWRM activities in the state. The committee/coalition should comprise MDAs, CSOs, CBOs, the Academia and all relevant stakeholders. The Coalition/Committee should be piloted by the following executive offices:-

- i. Chairman-MPUWR
- ii. Co-Chairman
- iii. Secretary
- iv. Assistant Secretary
- v. Financial Secretary
- vi. Treasurer
- vii. Internal Auditor
- viii. PRO
- ix. Ex-Officio
- x. Woman Ex-Officio and
- xi. Desk Officer-MPUWR

The committee members are expected to be Directorate Level and Senior Officers capable of representing their MDAs.

## The multi-level impact of water supply and sanitation







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## CHAPTER TEN

### 10 CHANGE MANAGEMENT

Reform is about change. It is accepted to make systems, institutions and Government adopt a more beneficial approach to the provision of amenities and meeting the needs of the people.

Why do we have to change the way we do things? The true aim is to improve productivity. This also means - "managing change" and refers to the making of changes in a planned and systematic fashion, so that the need for change will be understood and appreciated. This change will in effect introduce new methods which may likely improve the efficiency and effectiveness of the system. In Anambra State, change is needed, but managing the change is still a challenge.

For the water and sanitation sector, change and reform are very necessary. However, the problem with change management is the management of the staff of an involved institution, the communities and the people.

#### 10.1 Change Management Principles

1. Understand where you want to be, when, why, and what the measures will be for getting there.
2. Plan development in appropriate, achievable and measurable stages.
3. Communicate, enable and facilitate involvement from people, as openly and as fully as is possible.

##### 10.1.1 Managing the Change

The Ministry of Public Utilities and Water Resources will lead in the change management in the sector, to be supported by all other arms of the government

The state sector reform technical committee will be institutionalized to assist the ministry in tracking compliance to the reform.

The change may include:-

- i. Professionalizing the key actors, agencies and ministry.
- ii. Rationalizing the staff of the agencies, trimming down in some cases, and increasing staff strength in some relevant areas.
- iii. Providing environment for alternative PPP employment to technical personnel and providing grant where necessary.
- iv. Building capacities at various levels in the sector for better performance.

#### 10.2 Way Forward

The policy and institutional development of the water resources and sanitation sector



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have proceeded well with the approval of the policy by the State Executive Council.

The implementation and enforcement of the policy is the next challenge. It will require the political will on the part of the government and cooperation from the stakeholders and the people. One of the ways forward is the establishment of the regulatory commission that will work with the Ministry of Water Resources to effect the reform process.

The regulation together with the Water Law will set the legal framework for water supply and sanitation activities. The target is to achieve 60% of water supply and 80% sanitation coverage by 2020 and attain 100% coverage by 2030.

To achieve this may take another step- carrying out baseline survey across the state to understand the actual water coverage in the state. Important also is facilitation and enactment of relevant laws and by-laws by government to ensure full implementation of this policy for achievement of the medium term targets, leading to realization of SEEDS and LEEDS documents. The achievement of medium term targets, shall lead to realization of World Summit on Sustainable Development (WSSD) and Millennium Development Goals.

Optimal funding of the sector by private investors shall be vigorously canvassed knowing the huge potential of water market in the state.

As with other policy papers, this document shall be subject to periodic review in the medium term to keep pace with all relevant developments in the nation and internationally and with the status of water supply and sanitation in Anambra State.





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## CONCLUSION

Water Supply and Sanitation are essential for poverty alleviation, health improvement and for sustainable development. There is a moral imperative for the government to provide water for the thirsty citizens of the state.

The approval of the state policy document was the first solid step toward the total adoption of the reform principles that enable water to be provided in a sustainable way in the state. In addition to the water supply and sanitation policy, the state water bill is at the final stages of its enactment. The Ministry of Public Utilities and Water Resources also is working to produce the Policy Implementation Strategy which defines the modalities for a practical and successful implementation of the policy. These steps define the framework for a sustainable service delivery in the state.

The policy attempted to streamline the institutional arrangement, defining roles and responsibilities of resource managers, service providers, the private sector, the regulator and the non-governmental organizations.

Water has been declared an economic good by the United Nations. This arose because government alone cannot afford to pay the full cost of water provision in the midst of other competing needs. However, to realize the target of providing water for 100% of her citizens by 2030, the government should increase the annual allocation to the sector. Public Private Sector involvement has become not just a necessity but an imperative if the dreams and target must be met.

Neither the public sector nor the private sector can deliver water services efficiently in the absence of an enabling environment. Without reform and restructuring, and the creation of the enabling environment, the present attempt at providing water supply services may also fail.

Without huge financial investment in water development, the state will still find herself at a low range in the scale of urban water supply and sanitation service delivery. Public/Private investment and donor supports are needed.

Finally, implementing the policy requires a strong political will. The political will can be expressed by the establishment/upgrading of relevant bodies (agencies, boards) and formation and empowerment of a regulatory commission that will enforce the compliance of the water bill and bring sanity and sustainability to service deliverables in the state.



## Glossary

This glossary indicates in which sense such terms that are to be understood in the present instruments. Wherever possible, the source of definition is given in brackets

### *Advocacy*

A strategy for increasing the level of commitment to improve policies related to hygiene, water, and sanitation programmes and the provision of resources available for such programmes.

### *Attitudes*

Personal biases, preferences, and subjective assessments that predispose one to act or respond in a predictable manner

### *Basic Need*

Minimum amount of a public service that the society would like to be provided for everyone.

### *Cost Recovery*

The degree to which the costs of water supply and sanitation services are paid for by the users. Includes two categories of costs: the initial investment costs and the continuous cost of operation and maintenance.

### *Capacity Building (Individuals, organizations, institutions)*

The process by which (i) individuals and groups develop the skills, knowledge and competence to perform functions, solve problems and achieve objectives more effectively and efficiently, (ii) an organization or a system of organizations is strengthened to serve a specific existing or new purpose and role, and (iii) the institutional framework (laws, attitudes rules, norms) is created, reformed, developed, and/or strengthened.

### *Concession*

A contractual arrangement whereby a private company acquires the right to provide a service at a given standard or specification, for a fixed time, usually on behalf of the government or a government agency. The private company operates and manages the system, usually makes the necessary investments, and carries the commercial risks for the concessionary period, usually around 25 - 30 years. This allows the contractor to recoup expended capital. The role of the government in concession contracts is predominantly regulatory and as the owner





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## *Demand Responsive Approach (DRA)*

A project development and management approach in which community members make informed choices about whether to participate in the project, which technology and service level options they are willing to pay for (based on the principle that more elaborate systems cost more), when and how services are delivered, how funds are managed and accounted for, and how services are operated and maintained.

## *Decentralization*

The transfer of authority and responsibility for public functions from the central government to intermediate and local governments and/or the private sector.

## *Enabling Environment*

Attitudes, policies, and practices that stimulate and support effective and efficient functioning of organizations and individuals. An enabling environment allows participation by a wide range of providers of goods, services, and technical assistance, including private sector companies and non-governmental organizations.

## *Financial Policy*

If inadequate attention is given to cost recovery issues, operations and maintenance are likely to be compromised. Establishing and enforcing effective financial policies is an essential, but often poorly practiced, element of implementing successful demand-responsive approaches. If higher levels of service are demanded, users should pay the incremental costs beyond the basic service level.

## *Focusing Resources on Effective School Health (FRESH)*

FRESH was developed by a partnership of UNESCO, UNICEF, WHO, and the World Bank and launched at the World Education Forum in April 2000. The FRESH framework is the starting point for developing an effective school health hygiene and nutrition program in a more child friendly and health promoting school

## *Gender*

Concerns roles and relationships of women and men, including how they cooperate and share work, make decisions, and exercise control in projects and programmes. Projects must identify and address these differences and interrelationships to ensure that both men and women have the resources they require for their development.

## *Informed Choice*



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Choice that is based on a full understanding of the costs and benefits of all available options.

## *Indexation*

Adjustment of price levels in accordance with movements of economic indicators, primarily related to inflation or deflation rates in the economy.

## *Integrated Water Resources Management (IWRM)*

A concept to deliver a required quantity of water with an admissible quality to the required place in the specified time using organizational and technological frameworks and other resources in a sustainable manner. A system that bases on accounting all potential water sources, on hydrographic methods, and rational water resource use, coordinating intersectional interests and all levels of water use hierarchy, widely involving all water users. It ensures ecological security and sustainable water supply to society and nature. (IWRM)

## *Key Stakeholders*

Actors directly involved in the Public/Private Partnership. It includes the contracting parties, other government agencies, major sector organizations, donors, financing institutions and facilitators but excludes loosely associated or consulted stakeholders with no active role.

## *Lease Contract*

A lease contract is a written agreement between the public owner of a facility / property and an operator that stipulates the conditions under which the operator may possess the facility / property for a specified period of time and amount of rent. Under a lease contract the private firm operates and maintains the assets at its own commercial risk, providing services to the customers and deriving revenue directly from tariffs. In contrast to the concession contract, the private operator does not invest in infrastructure, and hence only receives the parts of the revenue which cover operation and maintenance costs. Investment costs are borne by the public partner. The usual duration of a lease contract is 6-10 years.

## *Life Skills*

Abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life.

## *Life Skills-based Hygiene Education*

An approach to creating and maintaining hygienic lifestyles and conditions through the





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development of knowledge, attitudes, and especially skills, using a variety of learning experiences, with an emphasis on participatory methods. It should enable a child to make positive decisions and take actions to promote and protect health and hygienic conditions for themselves and for others

## **Management Contract**

Contractual arrangement in which management, operation and maintenance of the public infrastructure are contracted to the private sector, but in which ownership, capital investments, and commercial risks remain with the public sector, typically with a duration of around 5 years. There is usually a performance based component in the remuneration for the private operator this is therefore a medium-risk contract but with greater responsibility of the private company than a service contract.

## **Millennium Development Goals**

*In September 2000, world leaders at the Millennium Summit agreed on an ambitious agenda for reducing poverty and improving lives. This ambition was formulated in eight Millennium Development Goals. For each goal one or more targets were set, most to be achieved by 2015, using 1990 as a benchmark.*

## **Monitoring and Evaluation**

Monitoring is observation of how a project is implemented and operates; it provides timely information for ensuring that progress, quality, and effect of processes and procedures are maintained. Evaluation focuses on whether a project is being implemented as intended, examines how the project operates, and addresses problems in service delivery.

## **Monitoring**

The measurement of information on the implementation progress of a project, programme or policy and the achievement of its objectives. There is distinction between implementation monitoring which concerns progress in undertaking activities, completing the work and plan and utilizing the budget, and results monitoring which concerns the measurement of results and the attainment of the result purpose.

## **Operation and Maintenance Costs**

Costs necessary to operate the water supply and/or sanitation system, and to maintain the existing infrastructure, including rents, payments to the regulator, duties, and taxes, etc.



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## *Private Sector*

A commercial organization of any scale that is self-financing and operating on profit. Comprises all formal and informal businesses

## *Pro-Poor*

Focusing activities on the low-income segment of society, which often has inadequate access to water services of sufficient quality and at affordable price. Pro-poor implies that the overall aim is beneficial towards the poor, while poverty focused implies a greater degree of targeting.

## *PPP Contract*

A legally binding agreement concluded between two or more actors under the applicable legislation with the aim of developing and implementing a PPP for water and sanitation services.

## *Programme Communication*

The process of identifying, segmenting, and targeting specific groups and audiences with particular strategies, messages, or training programmes involves reaching them through various mass media and interpersonal channels, both traditional and non-traditional.

## *Quality Standards*

Encompass technical design standards and service delivery levels. Technical design standards relate the type and scale of facility with the type and level of demand.

Service delivery levels may be defined in terms of the output or outcome of the management of a facility.

## *SMART Objectives*

Objectives that are defined by five characteristics: Specific, Measurable, Available at an acceptable cost, Relevant, and Time-bound. Such objectives also form the basis for a future monitoring and evaluation system.

## *Stakeholders*

Agencies, organizations, groups, or individuals who have a direct or indirect interest in or who are affected by a project, programme, or development intervention e.g. national and local governments, municipalities, residents, water users, politicians, service providers, suppliers and contractors.





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## *Stakeholder Participation*

Stakeholder participation means that those affected by decision-making processes are able to make their voices heard in these processes. This requires consultation in decision making and articulation of interests within the decision-making process through direct participation 'or through representatives who are effectively accountable to those they represent.

## *Sustainable Development/ Sustainability*

Development meets the needs of the present without compromising the ability of future generations to meet their own needs. While there is no universally accepted interpretation of this term, it is usually seen as having three dimensions:

- Economic.
- Social.
- Environmental

## *Water Governance*

Water governance refers to the range of political, organizational and, administrative processes through which communities articulate their interests, their input is absorbed, decisions are made and implemented, and decision makers are held accountable in the development and management of water resources and delivery of water services.

## *Water Supply System.*

System for the collection, transmission, treatment, storage, and distribution of water from sources to consumers e.g. homes, commercial establishments, industry, irrigation facilities, and public agencies.

## *Water User (Groups)*

An individual or a group of individuals requiring access to water at a specific place and on a regular basis. Water-user groups imply some sort of aggregation of several users into a group which shares interests and responsibilities regarding water services.

## *Drawdown*

Lowering the ground water level due to pumping. Discharge or flow is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment).



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## *Per capita use*

The average amount of water used per person during a standard time period, generally per day.

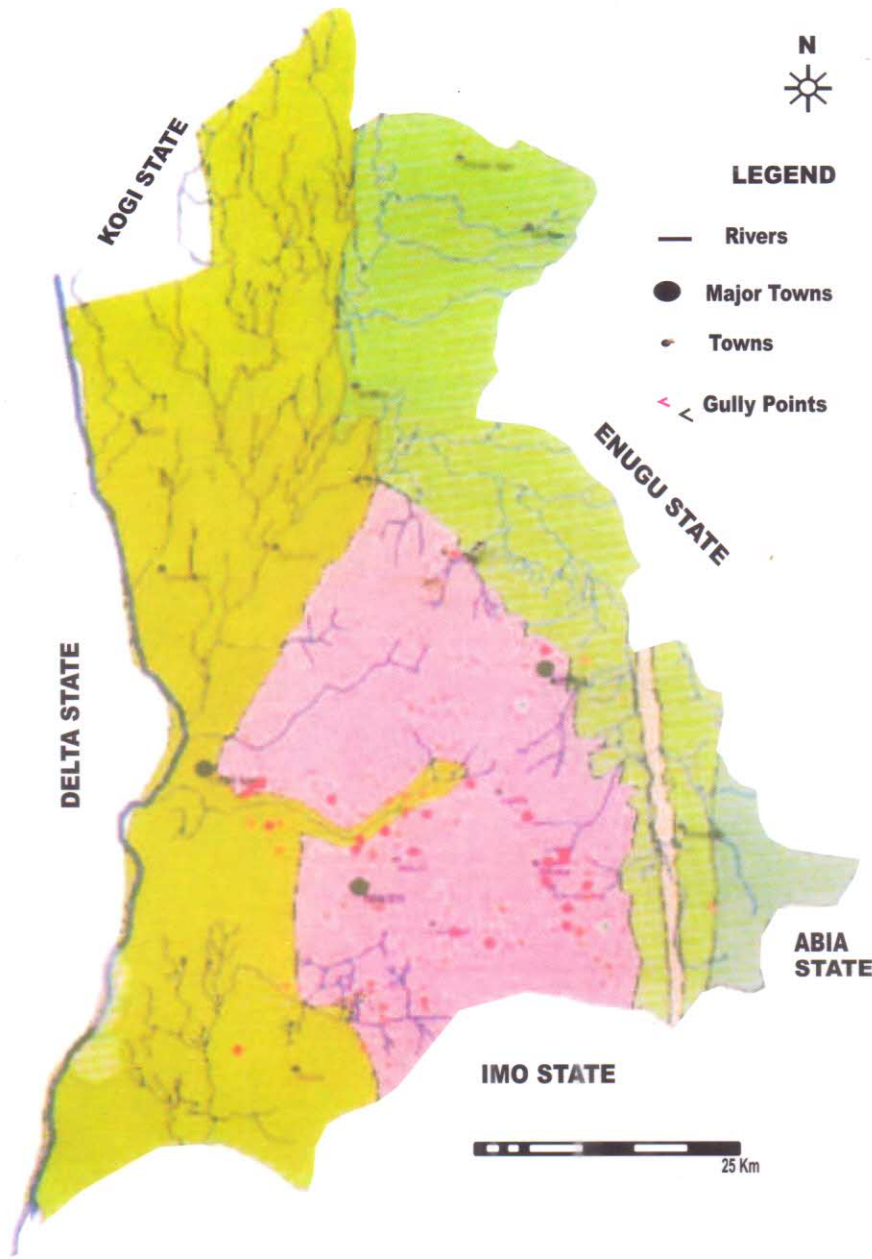
## *Per capita use*

The average amount of water used per person during a standard time period, generally per day.



6 35'E  
6 40'N

7 21'E  
6 40'N



5 40'N  
6 35'E

5 40'N  
7 21'E

- LEGEND**
- Alluvium with Ogwashi-Asaba Formation (Recent, Oligocene)
  - Ameki Group (Nanka Sand) (Eocene age)
  - Ebenebe Sandstone (Paleocene age)

- LEGEND**
- Imo Shale (Paleocene age)
  - Mamu Formation (Maastrichtian age)

National Geohazards Monitoring Centre  
Nigerian Geological Survey Agency, Awka 2008.