INTERDISCIPLINARY JOURNAL OF AFRICAN & ASIAN STUDIES (IJAAS)
VOL. 9 NO. 1, 2023 (ISSN: 2504-8694), Indexed in Google Scholar (EMAIL: ijaasng@gmail.com)
NNAMDI AZIKIWE UNIVERSITY, AWKA, NIGERIA

RURAL WATER SUPPLY IN ANAMBRA STATE, NIGERIA 1976-1991

Ikenna Odife, PhD
Department of History and International Studies,
Nnamdi Azikiwe University, Awka
Email: i.odife@unizik.edu.ng

Abstract
The importance of potable water in the overall welfare of the rural dwellers can hardly be over-emphasized. This arises from its use in wide range domestic activities and role in preventive healthcare delivery. The Government, international development and donor agencies as well as the people pursued its provision with great vigour. This necessitates the study of potable water supply in rural areas using Anambra State, Nigeria as focus. This study describes and analyses rural water supply with a view to identifying the achievements, successes, challenges and failures in the attempt by the various stakeholders to provide this essential infrastructure. Data for this paper are obtained from primary and secondary sources. The paper employs qualitative and quantitative methods of research devoid of theoretical underpinnings. Its presentation is chronological. The paper ventures to submit that in spite of efforts by various stakeholders to provide potable water to the rural areas of Anambra State, Nigeria within the period of this study, rural water supply was fraught with several challenges as a result of which it could hardly deliver on its expected goals.
Keywords: Anambra State, Potable water, Rural areas, Self-help, Government programmes and Development agencies.

Introduction
Potable water is known to be very essential to life. Its availability addresses challenges that relate to inadequacy of basic needs, environmental depredation, poor health care delivery, prevalence of communicable and waterborne diseases, among others. The rural areas are highly susceptible to these challenges. Government, Donor/development agencies and the communities made vigorous attempts to ensure its availability. There is need to study this in geo-political contexts and within time perspective and horizon. This paper is in response to this necessity. It studies rural water supply in Anambra state, Nigeria in the period, 1976 to 1991. The relevance of this study derives from the consideration that it would acquaint us with achievements, challenges and inadequacies of rural water supply programmes that would provide useful insights to policy makers, donor agencies and the people on practical measures to be adopted in rural water supply programmes. It will also contribute to the body of literature on rural development.

In order to address this task, this paper is organized in four sections. The first is the introduction which provides the background to the paper. The second discusses rural water supply in 'Anambra State' prior to the take-off of the paper. This would provide a picture on the state of rural water supply in the study area and the challenges thereto, at the inception of the paper. The third, set in chronological context, analysis the subject in the period, 1976-1991. This period may be seen to fall into two phases. The first phase covers the period 1976-1983, and the second, 1984 stretching to the split of Anambra State into Enugu and Anambra States in 1991, which is the terminus of this paper. This demarcation derives from the varying emphasis on rural water supply on the two phases. The Fourth provides the concluding remarks.

Rural Water Supply in 'Anambra State' prior to 1976

The provision of potable water for the rural areas was captured in the Rural Water Supply (RWS) schemes of the Development Programme and the various Development Plans of administration and regimes. This was considered uppermost among the infrastructural needs of rural areas because of its capacity to address the water challenge of most communities that depended on the streams, rivers as well as ponds and collected rain water. These streams, very few and unevenly spread across the rural areas, were yet contaminated through human faeces and refuse deposited in them by flood. Some were seasonal and tended to dry up at the height of the dry season when the need for them was greatest. These sources were unhygienic and often infested with water-borne diseases such as guinea-worm and cholera. The essence of the water scheme was to make potable water available to areas of greatest need and thereby curb these health hazards and ameliorate the hardship of traversing long distance to access water.

For the most part, rural water supply under the Ten-year Development Plan, (1946-1956), consisted of sinking and lining 4 foot diameter wells, tap water from springs and streams fed into a reservoir where it was chemically treated and distributed to the catchment communities, and the construction of rain water tanks from the corrugated iron roof of houses in the benefitting institutions. These projects were executed with cooperation and practical help of benefitting communities who supplied sand and other necessary materials. This form of community participation helped considerably in the economy and speedy completion of projects. However, communities that failed to cooperate were by-passed from the project.[1]

The table below shows the achievements recorded in the rural areas of 'Anambra State' in the first five years of the plan.

Table 1: Achievements in Rural Water supply in the area of 'Anambra State' in the First Five years of Eastern Region of Nigeria plan for Development and Welfare.

Province	No. of wells	No. of other points	Average depth of well in feet	Deepest well in feet
Onitsha	4	128	93	161
*Ogoja	3	47	63	134

***Source**: Eastern Region of Nigeria: "Progress Report, Nigerian Plan for Development and Welfare, The First Five Years in Eastern Region" Enugu; Government Printer, 1952, 28 in Box 70, NAE*

The provision of potable water also received attention in the Rural Water Supply (RWS) scheme of the Eastern Region Development Programme, 1958-62; the Eastern Nigeria Development Plan, 1962–68; East Central State Development Plans of 1970-74 and that of 1975-80. These schemes were of three supply types: Pumped and Piped Supplies; Simple Water Points such as wells, spring improvement and hand-operated bore holes (called 'manpower' by the people) and Impounded Water Reservoirs (*Okpuru*). The type of supply provided for communities depended on some variables. The Pumped and Piped Supply was provided for areas with sufficiently dense population that could make piping an economic proposition. Up to 1963, the Ministry of Works bore seven-eighths of the cost of this supply. However, due to increasing demand for water and controversy it occasioned, at times, by failure to supply water to all quarters of a community, a new method of financing was adopted. By

[1] Eastern Region of Nigeria, "Progress Report, Nigerian Plan for Development and Welfare, The first five years in Eastern Region" (Enugu: Government Printer, 1952), 28 in Box 70, National Archives, Enugu (NAE)

this the Ministry provided the bore-holes or intake works and trunk main while the benefiting community paid for the distribution system.[2]

The Simple Water Points were preferable in areas with low population density. Water in this type of scheme is not reticulated and aerated across the benefitting communities. The Impounded Water Reservoir was provided for communities in Abakaliki division that had scanty population; dispersed settlement and the need to encourage participation in the Village Integration Scheme. Again, geological conditions there made the provision of potable water through the other methods a very costly venture.[3]

The RWS was a joint venture between the government and communities. There were two kinds of Scheme- Executive Council Approved Scheme and Community Initiated Scheme. In the former, government bore the cost of the basic scheme which consisted of the development of the source of water, the storage facilities, the pumping equipment and the rising and large distribution mains while the community paid the cost of the distribution systems and improvements or any addition to the basic scheme. A community initiating its scheme, on the other hand, deposited with the government the sum of £10,000 (Ten thousand pounds) before any investigation, survey and preparation of estimates of the scheme was carried out. The government might, subject to the availability of funds, subsidize the project. The subsidy consisted of the basic cost of the scheme. However, communities were free to pay the whole cost of a project in the absence of government approval or sponsorship.

Government policy on the RWS schemes would seem to have yielded result as more and more rural communities were supplied potable water. Between 1957 and 1963, it expended the sum of Three hundred and forty-three thousand and seventy-nine pounds, one shilling and one penny (£343, 079. 1s. 1d) on the provision of water in our area of study. A breakdown of this figure shows that £15,544. 6s. 5d were spent on Educational Institutions; £7,524. 2s.3d was spent on medical institutions. St Joseph's Hospital and Lorretto Teacher Training centre, Adazi were served from the same scheme. The pump and piped type gulped the sum of £228,275. 4s.1d, while £92,103. 0s. 4d (Ninety-two thousand, and four pence) was spent on water point and spring improvement.[4]

In theory, priority on the water scheme was to those communities that had acute water shortage. But available facts do not seem to support this position. It would appear that those communities which could readily raise fund for the projects benefited to the neglect of those that could not. Also, the Executive Council approved schemes were to the benefit of communities that supported the ruling party or where the indigenes occupied key positions in government. A cursory look at the scheme reveals that they were located in the home town of prominent politicians, top civil servants of the time and influential personalities. A few examples could be cited. Ukehe was the home town of the Minister of Commerce, Chief J. U. Nwodo; Achi was that of the Minister of Information, Chief B.C. Okwu, while Ihiala was the home town of Chief G.E. Okeke, Minister for Education. Eha-Alumona was that of Barr. Charles Abangwu,

[2] M.K. Mba, "The First Three years, A Report of the Eastern Nigeria Six-year Development Plan," nd, no publisher, 13 in Box 72, NAE.
* Abakaliki Division was the part of Ogoja Province that constituted Anambra State. The researcher identified about 40 of such wells in the area
[3]"Water Supply, The Task before the Water Board," Enugu: Information Division, Ministry of Information and Home Affairs, nd, 21 in Box 72, NAE.
[4] Extracted from, "Distribution of Amenities in Eastern Nigeria, Data and Statistics," Official Document No. 20 of 1963, 40-45, Box 140, NAE.

a prominent politician. Obosi people are quick to acknowledge the role of Chief E.C. Eneli, a top civil servant in Eastern Nigerian bureaucracy in attracting virtually all the amenities and infrastructures in the town.[5] Affa was the home town of the first Igbo Medical Doctor, Dr. S. O. Onwu. In contrast, most communities in Abakaliki Division where water challenge was most acute received scant attention.

By and large, the underlisted towns were supplied potable water by the various water schemes and supply types before the outbreak of the Nigerian Civil War in 1967.

Table 2: Towns supplied water by the various water schemes and supply types before the outbreak of the Nigerian Civil War in 1967,

A. Pumped and Piped Supplies:

Town	**Name of Scheme**
Awgu	Awgu
Ndeaboh	Ndeaboh, Nenwe station
Igbo-Ukwu	Igbo-Ukwu
Achi	Achi, Enugwu-Agu, Isikwe
Awka	Awka/Amawbia
Ovoko	Ovoko
Ohodo	Ohodo
Eha-Alumona	Eha-Alumona
Ukehe	Ukehe
Ogidi	Ogidi
Aku	Aku (partially community financed)
Ihiala	Ihiala/Iseke/Ubulu-Isiuzor
Nnobi	Nnobi/Nnokwa/Awka-Etiti
Umuoji	Umuoji
Ozubulu	Ozubulu /Oraifite
Mbosi	Mbosi
Obosi	Obosi
Alor	Alor
Nnewi	Nnewi
Ngwo	Ngwo-uno/Aboh/Eke/Ebe
Amokwe	Amokwe
Affa	Affa
Oji-River	Oji-River station
Udi	Government station, Udi

B. Water Points and Spring Improvement

Town	**Name of Scheme**
Abakaliki	Abakaliki county council
Awka	Njikoka District Council
Aguata	Aguata District Council
Nsukka*	Nsukka Division
Onitsha	Onitsha North District Council

[5] Benedict Obionwu, 72, Rtd. Civil Servant, interviewed at Obosi on 3rd July, 2011.

	Onitsha Southern District Council
Agbaja-Ngwo	Agbaja District Council
Nkanu	Nkanu District Council
Ezeagu	Ezeagu District Council

Sources: Extracted from, "Eastern Nigerian Development Plan 1962-68," Official Document No. 8 of 1962, 40 Box 72, NAE

C. **Impounded Water Reservoir (*Okpuru*)**. Government with the assistance of the United States Agency for International Development (USAID) and Peace Corps provided 8 impounded Water Reservoirs for communities in Abakaliki Division.[6]

In addition, Government provided a number of independent water supplies such as wells, hand-operated bore-holes, spring improvement and rain-water tanks for schools and medical institutions in the rural areas. These were St. Marks Teacher Training Centre, Nibo-Nise, Merchant of Light Secondary School, Oba and St. Patricks Elementary Teacher Training Centre, Iwollo and Lorretto Teacher Training Centre, Adazi, Government Hospital, Abakaliki, Community Hospital, Awgu, St. Joseph's Hospital Adazi and Confidence Maternity home, Agulu.[7]

The Christian Missions in a few instances complemented government efforts. The role of the Norwegian Church Agricultural Project (NORCAP) in providing water for Ikwo people of Abakaliki Division stood out. They dug wells and constructed Impounded Water Reservoirs in Ohatekwe, Amagu, Ndegu, Ezeke, Ndufu-Achara and Omege-Achara, among others.[8] Also significant was the achievement of the Roman Catholic Mission (RCM) in Enugu-Ezike, Nsukka Division under the guidance of Rev. Father Glade. He attracted international support and galvanized the effort of Umuagama and Aji communities to sink a bore-hole and construct two giant water reservoirs from which water was distributed to the two communities. This project was later transferred to government water scheme.[9]

However, the following schemes were at various stages of completion before the outbreak of the Nigerian Civil-War in 1967: Nri/Nimo/Enugwu-Ukwu/Abagana, Agulu/Aguinyi, Okija/Ihembosi, Mbanese, Opi/Umuabor/Ede-Oballa, Okpatu/Umulumgbe/Aboh, Enugwu-Ezike/Ibagwa and Obollo-Afor/Amufi.[10] The Nigerian Civil War brought a lot of damages to the existing schemes. According to a report on the state of RWS in East Central State (from which Anambra State was carved out) after the Civil War,

> In nearly all cases the generating sets and pumps were either destroyed or cannibalized. Whichever other accessories that could not be removed were missing, and in some cases, bore-holes were blocked, making them unserviceable.[11]

[6] Eastern Nigeria, Eastern Nigerian Development Plan 1962-68, 46

[7] Eastern Nigeria (EN) "Distribution of Amenities in Eastern Nigeria; Data and Statistics", Official Document No. 20 of 1963, 20; Box 140 NAE; Water Supply. See also, The Task before the Water Board, Enugu: Information Division, Ministry of Information and Home Affairs, nd,14, Box 72 NAE.

[8] Oliver N. Eze, *Cultural Identity in Ikwo Clan; Issues and Challenges*, Abakaliki: Citizens Advocate Press, 2011, 22

[9] Frank O. Eze, Quoted in E.O. Egbo, *Community Development Efforts in Igboland*, Onitsha; Etukokwu Press, 1988, 41

[10] M.K. Mba, "The First Three years, 36.

[11] East Central State of Nigeria, "Three years after the Civil War," Official Document No. 6 of 1974, 76 in Box 72, NAE.

The State's Second Development Plan (1970-74) took cognizance of the tremendous damage to the Rural Water Schemes and made provisions for their rehabilitation. The Plan envisaged an expenditure of £550,000 in the reactivation of schemes and £600,000 in the completion of schemes started but was suspended because of the Nigeria Civil War. Government's policy was to first reactivate existing schemes and, in some cases, make minor improvements thereto. The repair works undertaken in the schemes included servicing the equipment, extension of power supply from Electricity Corporation of Nigeria (ECN) and supply of new equipment. By 1973, all existing schemes in the area of the state but that of Government Station Udi had been rehabilitated and reactivated. This was because of the proposed transfer of Udi divisional headquarters to a new site and the intention to integrate the scheme with the proposed Udi General Hospital water supply. The minor extensions were the extension to Egede from the Affa scheme and the extension to other villages of Aku from the Aku scheme. Thereafter, government completed the schemes under construction before the outbreak of the Civil War.

There was a remarkable increase in the demand for pipe-borne water by the communities after the war. Such communities that had deposited money with the government for their own schemes prior to the war demanded their construction. Again, the Community Councils established under the Divisional Administration system which took off in 1971, vigorously pursued the provision of amenities to their people, and the provision of pipe-borne water was the most profound.

In response to the growing demands for potable water supply, the East Central State Government in 1973[12] issued an Edict establishing the State Water Board. To underscore its importance the State's Administrator, Mr. Ukpabi Asika directly supervised it. The Board made further improvements on the existing scheme and initiated a number of new ones. The improved schemes were, Amokwe, Affa, Oji River, Iwollo, Ngwo, Ogugu-Ndeabor, Obeleagu-Owa, Eha Alumona, Ukehe, Ohodo, Ovoko, Nnobi/Awka-Etiti, Umuoji and Obosi.
The New schemes undertaken were;

Table 3: The New Water Schemes undertaken by the Government of East Central State according to Divisions and complexes of rural water supply by 1973.

Division	**Complexes of Rural Water Supply**
Aguata	Umunze/Ezira, Owerre-Ezukala, Ufuma,/Ajalli/Ndikelionwu
Anambra	Ogbunike, Otu-Ocha, Aguleri
Awgu	Awgu/Mgbowo, Inyi, Awlaw
Ezzikwo*	Onueke
Idemili	Ichida, Oba/Ojoto, Abatete/Ukeh
Ishielu*	Ezzamgbo, Ezzikwo/Nkalagu, Effum
Isi-Uzo	Ikem/Neke, Ehamufu
Izzi*	Iboko
Nkanu	Agbani/Akpugo
Nsukka	Mkpologwu, Ugbene
Ogbaru	Atani/Odekpe
Uzo-Uwani	Adani/Ogurugu, Umumbo

Source: East Central State of Nigeria, "Three years after the Civil War," Official Document No. 6 of 1974, 76 in Box 72 NAE

[12] East Central State of Nigeria, East Central State Water Board Edict, Edict No. 17 of 1973

These schemes were at different stages of completion before East Central State was split into Anambra and Imo States in 1976. Developments after this period fall into another phase of this study.

On the whole, one could observe that the various regimes and different communities pursued rural water supply with vigour. Attempts were made to ensure spread in the distribution of such scheme as the divisions in old Abakaliki province (marked asterisks) that had hitherto been neglected benefitted from the latest effort. Yet rural water supply could be described as poor. It did not meet the government avowed mean supply of 5 gallons per day for every rural dweller. Of the 381 communities in the area, 66 had functional water schemes while construction work on schemes that covered 38 towns was on-going. Thus 104 communities representing 27.3 per cent had been keyed into the scheme by 1976. Again, there were indications that the Schemes, where they existed, did not cover the entire town. There were so many instances where sections or quarters of communities remote from the main water source were yet not piped. In such situations, the indigenes still trekked some distance to access water from sections of the town already piped. But these would not obviate the fact that the provision of water to the rural communities was a matter of serious concern to the government and the rural dwellers. The decision of the Administrator of East Central State, Mr. Ukpabi Asika to directly and personally supervise the Water Board, the budgetary allocation to it, grants it received from the government as well as the zeal of the Community Councils to raise funds for water projects, attest to this.

Rural Water supply, 1976-1991

This section of the paper discusses in holistic perspective, rural water supply in the state in the period covered by this paper. However, this period could be delineated in two phases. The major reason for the delineation was varying degree of emphasis on the subject matter during the two phase.

Phase I (1976 - 1983)

Chief among the rural infrastructures that attracted government's attention was Rural Water Supply (RWS). Aside from the communities that had been captured in the previous water schemes, the East Central State Programme of the Third National Development Plan, 1975-1980 listed towns and complexes for rural water supply. The uncompleted schemes, improvements to the existing schemes and new schemes had been captured in our discussion on rural water supply in the 'state' before 1976.

The major concern of the government of the newly created Anambra State was to work on the schemes already earmarked for the area of the state. The State Water Board was created in 1978,[13] with the major function to develop, provide, conserve and distribute in the state water for public, domestic and industrial purposes. It also supervised the Rural Water Scheme (RWS).[14]

Government, in response to the increasing demand from the rural communities, gave rural water supply the necessary attention so as to meet the expectations of the rural dwellers. Between the creation of the state in February 1976 and March 1978, nearly 200 boreholes were sunk in the various communities and more than 50 percent of them were successful and

[13] Anambra State of Nigeria, Anambra State Water Corporation Edict, Edict No.16 of 1978
[14] Section 4(b) and (c), Water Corporation Edict, Edict No. 16 of 1978

productive.[15] Specifically, in the 1978/79 financial year, ten more boreholes were sunk. Reservoirs and overhead tanks were purchased and installed for their use.[16] Yet, these efforts could not meet the demand and yearnings of the rural communities. It is on record that most of tatively rich communities side-tracked the government and employed the services of water drilling companies for their water projects.[17]

Paucity of fund occasioned by the decline in the state revenue made government to rely on capital contributions from local governments and communities for water supply projects in their areas of authority and localities.[18] The major fillips to RWS were the promptings from International Drinking Water Supply and Sanitation Decade (IDWSSD) 1981-91, which established targets for National coverage, the National Bore-hole Programme (NBP) 1981-1986, in which the State got an allocation fifty-six borehole projects and the UNICEF Assisted Rural Water and Sanitation Projects, 1981-2010.[19] These, no doubt, spurred rural water supply.

Government made fervent effort to improve the equipment and facilities of rural water schemes. In May 1982, it obtained from the ELCO Power Plant of Britain, various equipment required by the state executive ministries. A good number of these were pumping machines and generating sets. Out of the 59 generating sets, 14 were allocated to the State Water Corporation and they were deployed to the rural water scheme.[20]

As a way to improve the existing schemes, generating pump houses were constructed in fourteen communities, namely, Abina, Ngbo, Ette, Ikem, Isuaniocha, Umuoji, Oba, Nsukka, Amaechi-Awkunanaw, Okija, Ogbunike, Nnewi and Agulu-Aguinyi. The initial challenge in the execution of these projects was the difficulty in the acquisition of land for some of the sites. Also, Braithwaite tanks were constructed for Egede, Ugbaike, Uli/Amorka, Nachi, Umuagama, Oba, Alor-Agu, Amachara, Mgbowo, Effium, Ngbo, Ufuma at the cost of ₦552,500. Main pipelines were laid and in-take and treatment plants constructed. Government also made available to the State Water Corporation the sum of ₦350,000 to refurbish and revitalize some of the rural water schemes so as to improve them for better services to the various communities.[21]

Furthermore, government acquired a drilling rig at the cost of ₦812,982.72 for the execution of its Bore-hole Programme. It was used in drilling bore-holes in parts of the State where supply from underground water was found feasible. Forty-two communities were penciled to benefit from the Programme. Seventeen Impounded Reservoirs were to be constructed in parts of Abakalilki at the cost of ₦400,000.[22] It is rather unfortunate that some of these projects were not completed by the end of the tenure of Governor Jim Nwobodo, whose administration initiated them and within the time frame of this phase of the paper. Sources observe that site clearing was the only exercise done on some of the projects. Explanations for this tend to vary.

[15] ASN, 1977/78 Approved Estimates, XII
[16] ASN, 1978/79 Approved Estimates, XIV
[17] ASN, Annual Reports, 1978/79, 35
[18] ASN, Budget Speech, 1977/78, XI and Annual Report, 1978/79, 52
[19] World Bank, Nigeria; Expanding Access to Rural Infrastructures, Issues and Options for Rural Electrification, Water Supply and Telecommunications, 35994, Energy Sector Management Assistance Program (ESMAP) Technical Paper,091 2005, 25 ESMAP.pdf- Adobe Reader.
[20] Anambra State of Nigeria (ASN), *3rd Twelve Months of Civilian Administration of Anambra State*, Enugu: Government Printer/Ministry of Information and Culture, 1983, 144.
[21] ASN, *3rd Twelve months*, 144
[22] ASN, *3rd Twelve Months*, 145

Some respondents are of the view that government was ambitious and bit more than it could chew.[23] While others argue that such was a subterfuge by government in power to win votes from the communities, knowing fully-well it may not have the resources to complete the projects.[24] But, whichever way, both contains elements of truth.

The Anambra-Imo River Basin Development Authority (AIRBDA) played some marginal role in the provision of water to the rural communities. One of the cardinal objectives of the River Basin Authorities was "construction, operation and maintenance of dams, dykes, polders, wells, irrigation and drainage systems and boreholes for rural water supply."[25] Through its Underground Water Resources (Borehole) Development Programme which began operation in 1981, it drilled boreholes in areas where geophysical investigations confirm the feasibility of drilling boreholes. It also offered borehole drilling services on commercial basis.[26] The Authority provided a few boreholes in parts of the state. These included Omor in Uzo-Uwani Local government areas and Ikem in Isi-Uzo local government area.[27] Such projects served these communities and their environs.

The RWS was deficient in some respects. First, there was no conscious effort to integrate the water schemes to rural electrification projects as a way to address the energy needs. Allied to this was the lack of fund for the steady supply of diesel to power the generators, their routine maintenance and the delays experienced in repairing/fixing the boreholes and generators when they broke down. Consequently, the affected communities stayed months on end without water whenever these occurred.[28]

Second, Government's provision of Impounded Water Reservoir as the chief source of water supply to the rural areas of Abakaliki left much to be desired. In most instances Government's Impounded Water Reservoirs *(Okpuru Carterpillar*) were deliberately situated close to the traditional source (*Okpuru Agbagba*) so as to lure the people to use its source. The import of this source for the purpose of addressing the challenges of guinea-worm scourge in parts Abakaliki and the people's response to it have been eminently discussed elsewhere[29], and do not deserve a rehash here. But suffice it to say that they expose government's neglect and dereliction of its responsibility to provide potable water for the affected area.

Plate 1: Traditional Impounded Water Reservoir (*Okpuru Agbagba*)
Source: Author's Fieldwork, 16th April, 2012

[23] Ike Randolph Ozoekwe 66yrs rtd General Manager Anambra State Water Corporation, Interviewed at Awka on 3rd May, 2012.
[24] Ethelbert Okeke, 60, Public Opinion Analyst, interviewed at Awka on 4th July, 2012.
[25] Federal Republic of Nigeria River-Basin Development Authority Act, Decree No 25 of 1976. See Section 3(a)
[26] E.E Emeghara, "Anambra Imo River Basin Development Authority AIRBDA, 1976-2002" PhD Thesis, Department of History and International Studies, UNN, 2006, 83.
[27] Emeghara, "Anambra-Imo, 84
[28] Ike Randolph Ozoekwe, interview cited
[29] Ikenna Odife "Was there Light at end of the tunnel? Interrogating rural health care delivery in Anambra State Nigeria, 1976-1991" *Ohazurume:* Unizik Journal of Cultural and Civilization (UJOCC) Vol. 1. No. 1, 2022, 15

Plate 2: Government Impounded Water Reservoir (*Okpuru Caterpillar*)
Source: Author's Fieldwork, 16th April, 2012

Phase II (1984-1991)

Government showed keen interest in making potable water available to as many rural communities in the state as possible. This was informed by Government's conviction that the entire health conditions of the rural dwellers would improve tremendously with such services and that would help to deepen preventive approach to rural health-care delivery for which Government had preference.[30] It, therefore, intensified effort on the rural water supply programme.

The Rural water supply programme had three components namely: The Individual and Regional schemes; reactivation and completion of abandoned Federal Government Borehole projects and meeting the demand for the implementation of community sponsored water projects, by those communities not captured in the existing Scheme. The first consisted of fifty-six schemes valued at ₦20.3m which would cover seventy-seven communities.[31] It is pertinent, at this juncture, to draw the thin line between Individual and Regional water projects. Individual projects are those borehole projects that do not have distribution mains for the reticulation of water to the various sections of the hamlet or community. Water from such bore-holes is accessed from the taps *in situ* that discharged the water fed into the steel over-head tanks. The regional projects, on the other hand, are those boreholes equipped with engine driven submersible pumps. Water is pumped through pipes to nearby reservoirs for aeration and distribution to different strategic locations, public places and households.

As regards the reactivation and completion of abandoned Federal Borehole projects, a combined effort of the benefitting communities and state Government through the State's Water Corporation made possible the reactivation of twenty-nine projects abandoned under the Federal Governments Boreholes project. Recall that the Federal Government had earmarked fifty-six boreholes projects for the state. A typical case in point was the Nibo Water Scheme in which the community, by 1987, raised ₦36,000 for its reactivationn and completion which was taken-up by the Water Corporation.[32]

Finally, in some cases where communities not included in the existing government programmes had through self-help effort raised fund for the execution of their water project, which is deposited with the state government, the Water Corporation executed such projects. A typical case in point was the Umuabi water project in which the community deposited the sum of ₦56,000.[33] However, a community could embark on self-sponsored water projects. In some instances, wealthy and well-to-do indigenes of communities could single handedly and jointly

[30] ASN, *Blueprint*, 6
[31] ANS, *Focus on Rural Development, Vol. I*, 4, 5
[32] ANS, *Focus, Vol. I*, 5
[33] ANS, *Focus, Vol. II*, 5

sponsor a water project. A typical case in point was the Uruagu, Nnewi water project donated by Chief Clement Ibeto.[34]

Rural water supply in the state received great boost with the establishment of DFRRI. Part of the DFRRI mandate was to ensure adequate supply of potable water to the rural areas of the country. The State DFRRI sought to achieve this through the implementation of the following schemes; Deep boreholes, Shallow boreholes, Rain water harvestation scheme and Stream improvements scheme. The decision as to which water scheme would be located in any community depended on; the volume of financial contribution the community was prepared to make to supplement DFRRI fund and the geological state of the community.[35]

Government set up the Task Force on Rural Water Supply to complement the effort of the State's Water Corporation. The main objectives of this Task Force which was headed by then Captain J.O.C Onebunne were:

- to supply potable water to all rural communities in the state within the shortest possible time. In particular to see that by the end of 1986, fifty-one communities would benefit from the state rural water supply programme;
- to activate all abandoned water boreholes and building new ones;
- to construct water receptacles in all the areas where boreholes could not be provided;
- to concentrate on reticulation so as to avail all hamlets and villages with a network of water lines; and
- to inspire and mobilize the communities to contribute their good will, their labour and their efforts.[36]

The Task Force continued operation till September 1987, when it was disbanded and fused with that of Rural Roads Construction and Maintenance to form the Rural Development Authority, as earlier mentioned. The Rural Water Supply Division of the RDA managed Rural Water Schemes.

The DFRRI rural water supply programme was divided into phases. The Task Force completed the First Phase. The First Phase involved thirty-eight locations. As at August 1987, nineteen locations awarded to contractors were at varying levels of completion, while the Task Force working at nineteen other locations by direct labour had completed six projects. A major drawback of the First Phase of the DFRRI Rural water supply programme was that most of the shallow water boreholes sunk in parts of the state stopped production after a short period of operation.[37] Sources from some of the affected communities stated "that the projects were abandoned or that water failed to come from the boreholes on completion of the drilling processes."[38] The official position is that pump failure and unsuitable (shallow) aquifer were responsible for it.[39] But Igwe J.O.C. Onebunne, then Captain J.O.C. Onebunne, Head, Task Force on Rural Water Supply argues that such incessant failure was due to absence of follow-

[34] Chioma Esione "Uruagu in Nnewi History, 1900-2010" B.A. Project Report, Dept. of History and International Studies, NAU, Awka, 2013, 43
[35] ANS, *Focus, Vol. II*, 10
[36] ASN, *Blueprint*, 4
[37] ANS, *Focus Vol.II*, 56
[38] J.C Agunwamba, "Rural Water supply: Successes and failures" in E.C Eboh, C.U Okoye and O. Anyichi (eds*) Rural Development*, 109; Florence Nwibo, 50yrs Women Leader, Okpoto, Interviewed at Okpoto on 13th April, 2012.
[39]ANS, *Focus, Vol. II*, 57

up exercises needed to sustain and maintain the bore-holes after successful drilling. He blames this on the operational scope and mandate of DFRRI which did not have such provisions.[40] In order to avert this situation, it was decided that mostly deep boreholes would be constructed in most parts of the state while shallow boreholes could still be constructed in areas where they proved feasible, and productive like in Abakaliki zone. For a better and more effective functionality of the Scheme, the Rural Development Agency set up a Mobile Maintenance Unit to maintain the faulty pumps while for areas with unsuitable aquifer an alternative water scheme was designed for them in the Second Phase.[41]

Under the Second Phase, government (RDA) continued with the provision of water through the earlier mentioned sources or methods. But much emphasis was, thenceforth, placed on the maintenance of existing facilities. The mobile maintenance team created by the RDA to maintain, on regular basis, broken down or faulty pumps throughout the state was strengthened through the provision of better and improved equipment and engagement of right caliber of personnel. The Authority also involved communities in minor fault maintenance of the projects in their locality in order to ensure un-interrupted water supply. This involvement helped to inculcate in the people "a sense of ownership and responsibility to protect, maintain and use the system carefully."[42] These measures were designed to make the scheme functional at all time.

From the experiences drawn from the Phase I of the DFRRI water project in which many of the shallow boreholes failed, Government from the Phase II emphasized boreholes which would be more functional and cost effective in the long run. The failures also made the RDA to conduct series of geo-physical tests on the soil in order to obtain the viability of locations before the projects were embarked upon in order to avoid wastages.

Other agencies like the Agricultural Development Programme (ADP) and AIRBDA embarked on water projects at different locations. For instance, the ADP sank a deep-bole hole equipped with an over-head metal tank and diesel generator set at Ose-Akwa in Ihiala LGA.[43] Similarly, the AIRDBA sunk two boreholes at Ozubulu and Amichi in Nnewi LGA.[44] In addition, the AIRBBA offered borehole drilling services on commercial bases to individuals and communities desirous of its services.

Another boost to the RWS was the involvement of International Donor Agencies (IDA). Foreign governments, Non-governmental organizations- UNICEF, African Development Bank (AfDB), World Health Organization (WHO) - assisted in the sponsorship of rural water projects in the state. The involvement of the above-mentioned agencies and organizations was primarily to combat the guinea-worm scourge that ravaged parts of the state. These have been discussed elsewhere[45] and as such do not deserve a reiteration here.

[40] J.O.C Onebunne 65yrs (Fmr. Col, Head, Task Force, on Water Supply) now Igwe Ebeteghete I of Akwa-Ihedi Kingdom, interviewed at His Palace on 3rd August, 2017
[41]ANS, *Focus Vol. II*, 57; Agunwamba, "Rural Water, in Eboh *et al*(eds), *Rural Development*, 110
[42] Agunwamba, "Rural Water, in Eboh *et al*(eds*), Rural Deveiopment*, 110
[43]ANS, *Focus, Vol. II*, 62
[44]ANS, *Focus, Vol. II*, 72
[45] Ikenna Odife "Was there Light at end of the tunnel? Interrogating rural health care delivery in Anambra State Nigeria, 1976-1991" *Ohazurume:* Unizik Journal of Cultural and Civilization (UJOCC) Vol. 1. No. 1, 2022, 17

Some of the major shortcomings of the rural water scheme in this period were the apparent neglect and abandonment of the regional water schemes already in place. Again, the DFRRI projects emphasized individual bore-hole projects that were not reticulated to the various segments of the benefitting communities. As a result, there were rowdy scenes at the bore-hole sites which often degenerated into fisticuffs amongst those who come to fetch from the taps. Had the sources been reticulated, it would reach individual households, reduce the time people spent at the borehole site to access water and avert the incessant melee there. Third, as the government tended to abandon the boreholes after successful drilling, installation of the over-head tank and the generating sets, most communities could not maintain the boreholes located in their town through servicing of the sumo and purchase of gasoline to power the generators. These bred neglect as a result of which most of the boreholes sooner than later malfunctioned.[46]

Concluding Remarks

This paper has described and analysed rural water supply in Anambra State, Nigeria from 1976 to 1991. It discovers that government, donor agencies/International Development Agencies and the people through self-help efforts executed rural water supply projects. There was considerable cooperation and coordination of the efforts of these stakeholders. However, it notes that the provision of water to the various communities under the different programmes had a tincture of politics: notable politicians and influential bureaucrats tended to influence its distribution to the benefit of their respective communities and hamlets. Furthermore, its distribution and execution did not strictly adhere to the principle of need. Otherwise communities in the guinea-worm ravaged and Nsukka area of the state that lack natural water sources could have received prime attention. Finally, inadequate feasibility study on the viability of the rural water projects, the absence of articulate maintenance schedule, poor habit on water use and lack of continuity of government projects by succeeding administrations were some of the weaknesses that hampered full realization of the goal of rural water supply in the state.

[46] Agunwamba, "Rural Water, in Eboh *et al* (eds) *Rural Development*, 110