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PROVISION OF RURAL WATER SERVICES AND COMMUNITY DEVELOPMENT IN NORTHERN SENATORIAL DISTRICT OF CROSS RIVER STATE, NIGERIA

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ABSTRACT

The study was aimed at examining provision of rural water services and community development in Northern Senatorial District of Cross River State. To achieve the purpose of the study, one research question was raised and one hypothesis stated. Empirical literature according to the variable of the study was reviewed, the study adopted a correlational survey design, purposive sampling technique and a sample of (611) adult male and female respondents. 'Provision of Rural Water Services and Community Development Questionnaire (PRWSCDQ)" was adopted for data collection. The instrument was validated by three experts in Measurement and Evaluation, the reliability of the instrument was established using Cronbach alpha reliability technique and the coefficient of the sub scale showed that the instrument was reliable. Data was collected and analyzed using Pearson product moment correlation analysis at 0.5 level of significance. The result showed that; there is a positive relationship between provision of rural water services and community development in terms of active participation in organizational growths, economic stability and standards of living. Based on the findings of the study, it was recommended among others that government, community developers and Non-Governmental Organisations (NGOs) should awaken their sense of consciousness to embarking on sensitization that will positively redirect the thinking of people as regards to the pivotal role water plays to communities and re-evaluate the performances and multi-level technicalities to handling services concerning water maintenance, provide robust communication network structures in rural communities that will enhance water supply.

Keywords – Water Services, Community Development.

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Introduction

Community development is a way of strengthening civil society by prioritizing the actions of communities, and their perspectives in the development of social, economic, political and environmental policy. It seeks the empowerment of local communities, taken to mean both geographical communities, communities of interest or identify and communities organizing around specific themes or policy initiatives. It strengthens the capacity of people as active citizens through their community groups, organizations and networks; and the capacity of institutions and agencies (public, private and non-governmental) to work in dialogue with citizens to shape and determine change in their communities. It plays a crucial role in supporting active democratic life by promoting the autonomous voice of disadvantage and vulnerable communities. It has a set of core values/social principles covering human rights, social inclusion, equality and respect for diversity; and a specific skills and knowledge base.

Community development is a multidimensional process aimed at improving the quality of life of people in a defined locality through sustainable social, economic, political, and environmental initiatives. It emphasizes the active participation of local people in planning and managing their own development processes, thereby fostering a sense of ownership, empowerment, and long-term sustainability (Midgley, 2014). As such, community development is both a goal and a process: it seeks to achieve measurable improvements in the well-being of community members while building their capacity to influence and control change. Asor, Ubana, and Abuokwen (2022) revealed that community engagement in internal security is a prominent tool to promoting community growth. Ubana, Obeten, Musa and Eloma (2025) opined that harnessing security approach and artificial intelligence as tools to combat corrupt and unethical practices promote development in an organization.

In many developing countries, including Nigeria, rural and underserved urban communities face deep-rooted challenges that inhibit sustainable development. These include poverty, poor infrastructure, lack of access to healthcare and education, inadequate water and sanitation services, environmental degradation, and marginalization from decision-making processes (Obadeyi & Oyeniyi, 2020). Augustine, Ubana, Rose and George (2025) observe community environmental education as a significant instrument for environmental protection. Community development approaches have been widely adopted by governments, non-governmental organizations (NGOs), and international development agencies as a strategy to address these complex and interrelated issues.

One of the foundational principles of community development is participation, the belief that development is most effective when communities are engaged not just as beneficiaries, but as active stakeholders (Ife, 2016). Ubana, Awah, Emmanuel,

Igboke, Abuokwen, Patrick and Arikpo (2025) sees youth participation in socio-economic activities as a tool for community development. Empowering communities to identify their needs, set priorities, and implement solutions enhances the sustainability and relevance of development projects. Additionally, the integration of indigenous knowledge and local resources ensures cultural relevance and cost-effectiveness.

However, community development faces several challenges. These include limited funding, inadequate institutional support, political interference, lack of skilled personnel, and community apathy or disillusionment due to previous failed interventions (Aref, 2011). Ubana, Glory, Arikpo and Oku (2024) sees administrators' supervisory role on quality service delivery as a key component for community development. In the Nigerian context, the failure of many top-down development programs has led to increased interest in grassroots-led and participatory models of development (Emeh, 2012). Helen, Ubana, Eki and Nkanga (2025) avers vocational training programmes and economic empowerment of street children as a major approach to promoting community development. Cecilia, Ubana, and Jerry (2025) opined that achieving community development through cooperatives and community education and mobilization. The need for context-sensitive and inclusive approaches is especially important in areas with diverse ethnic, linguistic, and socio-economic characteristics.

Despite decades of national and international efforts aimed at improving the living conditions of marginalized populations, community development in many parts of the world, including Nigeria, Northern Cross River State in particular remains inadequate, fragmented, and unsustainable. While the concept of community development is built on principles of empowerment, participation, and sustainability, in practice, it is often undermined by systemic challenges that hinder its effectiveness and long-term impact (Ife, 2016; Midgley, 2014). A major issue facing community development initiatives is the top-down approach often adopted by governments and external agencies, where decisions are made without adequate involvement of the community members who are meant to benefit from the interventions. This lack of participation leads to poor project ownership, low sustainability, and eventual failure of many development programs such water supply (Aref, 2011). Furthermore, development projects frequently fail to reflect local needs, cultures, and socio-economic realities, resulting in solutions that are inappropriate or misaligned with community priorities (Obadeyi & Oyeniyi, 2020).

Another core challenge is the lack of coordination among stakeholders, including governmental agencies, NGOs, community-based organizations, and donors. The absence of synergy often leads to duplication of efforts, resource wastage, and conflicting objectives (Emeh, 2012). Andong, Ubana, Eloma, and Musa (2025) sees activities of agricultural cooperative societies and

economic development of co-operators as a critical instrument for community development. In addition, corruption, political interference, and poor governance have significantly weakened institutional frameworks and trust between communities and development actors (Ocheni & Nwankwo, 2012).

Moreover, community apathy, low literacy levels, lack of technical capacity further impede the ability of residents to actively participate in or sustain development efforts. Lack of digital literacy skills and application of artificial intelligence (AI). Ukwetang et al (2025) asserts that digital literacy skills in southern Nigerian tertiary institutions significantly promote community development and enhances students' learning outcomes. Helen, Ubana and Grace (2025) opined that building digital literacy through social work education for sustainable development significantly improve the livelihood of community members. Ubana, Glory, Undie and Elizabeth (2024) sees artificial intelligence as a tool for combating unethical practices in social works education for developmental purposes. Helen, Catherine and Ubana (2025) averred that evaluating the effectiveness of digital learning platforms in enhancing adult literacy skills acquisition in rural communities promote and triggers growth among people. Andong, Ubana, Ebong, Igboko, Ekanga and Cecilia (2025) outlined the benefits of incorporating games and simulations in the classroom to enhance adult learners' understanding and promote community development rationalization. A study by Andong, Ubana, Igboke & Arikpo (2025) opined that incorporating digital technology to adult literacy education programmes plays a major role for community development.

Inadequate funding and poor infrastructure also hinder development at the community level. Many rural and peri-urban communities in Nigeria suffer from lack of access to electricity, health services, quality education, and transport systems—basic services that are essential for social, economic development and clean water supply (UNDP, 2020). Even when funds are allocated, poor monitoring, weak implementation mechanisms, and a lack of transparency often result in minimal or no visible impact. Community involvement in the planning, implementation, and management of water projects has proven to be critical for sustainability. Yet, in Northern Cross River, many water interventions fail due to a top-down approach, where community needs and inputs are often overlooked (Agbor & Etim, 2021). Understanding the link between effective rural water service delivery and overall community development is essential for designing responsive policies and programs.

Access to safe, reliable water is fundamental to human survival and a cornerstone of sustainable community development. In rural areas, the provision of potable water is directly linked to improvements in public health, educational attainment, agricultural productivity, and economic empowerment (World Health Organization [WHO], 2020). Yet, many rural communities across Nigeria continue to face serious challenges in accessing clean water. The situation is particularly acute in the

Northern Senatorial District of Cross River State, which includes the Local Government Areas of Bekwarra, Obanliku, Obudu, Ogoja, and Yala. These areas are predominantly rural and depend largely on agriculture and small-scale trade, but poor water infrastructure remains a persistent barrier to progress (Okoi & Abua, 2021).

In Northern Cross River State, water scarcity and contamination continue to expose residents to waterborne diseases such as cholera, typhoid, and diarrhea. According to the Cross River State Rural Water Supply and Sanitation Agency (RUWATSSA), many rural communities still rely on unsafe sources like rivers, ponds, and shallow hand-dug wells for domestic use (RUWATSSA, 2022). These challenges are compounded by weak institutional capacity, inadequate funding, poor maintenance of facilities, and limited community participation in water governance.

Water provision is more than just an infrastructural issue, it is a key driver of rural development. Adequate access to clean water improves household health, reduces the burden on women and children who often fetch water over long distances, and frees up time for education and economic activities (UNICEF & WHO, 2021). In areas such as Yala and Obudu, anecdotal evidence and community assessments reveal that poor water access has hindered school attendance and increased health-related absenteeism, particularly among girls (Effiom & Ojong, 2020).

Empirically, Kailash *et al.*, (2017) posited that the most fundamental role of water in socio-economic development is its use for domestic purpose; use for drinking, personal hygiene and other domestic purposes constitutes a primary component of economic and social welfare for developing world. Improvement in water supply is the most important individual factor in controlling diseases and improving living conditions. Kailash et al (2017) opined that water supply serve as a basic component of welfare in its role as a direct consumer commodity, it also functions as an element of socio-economic infrastructure. Granahan (2012) study averred that the capacity of a city to support its population and economic activity is related to adequacy of water supply. The success of all economic activities depends on a variety of other factors as well, but water supply inadequacy can be a significant constraint. In a study conducted by Linsely, (2014) opined that water as an input to productive process has a variety of dimensions since most productive activities involve water use. At a fundamental level, water contributes to a wide variety of natural productive process, including directly productive activities such as element of basic economic infrastructure. It also encompasses functions as power supply and transportation.

Babasanya, Odidi, Olafemi, Alabi Onwuegbunam, Akanni & Toe (2013) empirically investigated rural dwellers' perception towards United Nations Development Programme (UNDP) rural development programmes in Nigeria by using a survey approach. Rural dwellers in Ondo State formed the population while random sampling procedures were used to draw 80 respondents. Questionnaire served as instrument for eliciting responses from

respondents. Study's inquiries also involved ascertaining determinants perceived as challenging the programme's effort of reducing poverty in the area. Utilising frequencies and percentages, it was found out that poor water supply was the prime factor hindering the programme's efforts of attaining its objective. This therefore meant in summary that the extent to which there was water supply in the area served to impact on the programme's capacity to achieve its objective of enhancing socio-economic activities in the area.

A study conducted by Adenipekun (2013) examined sustainable rural infrastructural development in Nigeria based on the country's vision 2010-2020 plan. A survey method was employed while study's population was made up from rural dwellers in Osun State using random sampling procedures, 200 respondents were selected. Inclusive in the study's posers were enquiries concerning settlements with basic rural infrastructural facilities and the state of the settlement's rural economy based on the availability of the infrastructural facilities. Frequencies were used for analysis and it was revealed that most of the settlements were found lacking adequate water supply and the after effect on their rural economy was that most of them were subsistence farmers with very little generated income in conclusion, it was observed that water supply was only barely available to the rural dwellers, thereby impacting adversely on their individual and collective development efforts.

Kailash et al., (2017) opined that water has always played a central role in human societies. Water is a basic essential to all world's' inhabitants. Water is a key driver of sustainable growth and development; water is quite literally a source of life and prosperity. Water permeates all aspects of life on earth. Like the air we breathe, water sustains human, animal and plant life. It provides vital services for human health, livelihoods and well-being and contributes to economic growth and sustainability of eco-systems (Kailash et al., 2017). Water is an essential component in the society and is at the centre of economic, social and community development. It is vital to maintain health, grow food, manage the environment and create jobs. Better access to clean water, sanitation services and water management creates tremendous strategy for economic growth of any community. Good management of water brings more certainty and efficiency in productivity across economic sectors and contributes to the health of a nation. Kailash et al., (2017) averred that water is a critical part of most community environmental services on which our ecosystems depend. Water requires optimal management to control scarcity and completion for use due to population growth, increasing demand, climate change and declining water supplies. Investment in water and sanitation systems in developing economics brings a multitude of economic and social benefits. Water is very important in our national economic welfare.

Awatt (2016) who examined the impact of the Cross River State Community and Social Development Agency's (CRSCSDA) activities on poverty reduction in Cross River State, Nigeria. Survey research design was adopted for study, the

population consisted of rural community dwellers across the state while 150 respondents were purposively selected for the study. A questionnaire was used for data collection and the study's inquiries verified the association between the impact of provision of safe and portable drinking water and the enhanced daily livelihoods of the community dwellers. Chi-square analysis technique was employed for data analysis. The findings of the analysis revealed that a significant association existed between the provision of safe and portable drinking water and the community dwellers enhanced daily livelihoods.

Akadu (2013) carried out a study to examine the impact of rural water supply and poverty reduction in Akamkpa and Odukpani Local Government Areas of Cross River State. The study used a randomized sample of two hundred and seventy (270) respondents drawn from the area of study questionnaire served as the instrument for data collection. Pearson product moment correlation analysis statistical tool was used in analysing data for the study. Findings revealed that a positive significant relationship exists between rural water supply and poverty reduction in Akamkpa and Odukpani Local Government Areas of Cross River State.

Water is an essential commodity for survival and the improvements of quality of life and health, it can also play a key enabling role in strengthening the resilience of social, economic and environmental systems in the light of rapid and unpredictable changes. Water can pose a serious challenge to community development if not managed efficiently and equitably, Based on the above stated, this study sought to ascertain the correlation between the activities of water supply and community development in Northern Senatorial District of Cross River State.

Statement of problem

The principal aim of community development efforts by all concerned parties are usually geared towards ensuring that improvements and changes are brought about in communities. It is observed that there have been plethora government-based efforts designed to facilitate community development such as jobs creation, revenue generation, acquisition of skills/wealth and the setting up of basic community-based infrastructures. Despite numerous efforts by governmental and non-governmental bodies to stimulate community development across Nigeria, the Northern Senatorial District of Cross River State continues to face persistent developmental challenges. This region, which comprises the local government areas of Bekwarra, Obanliku, Obudu, Ogoja, and Yala, remains largely underdeveloped in key areas such as infrastructure, healthcare, education, economic empowerment, and access to basic social amenities. Rural communities in the district often lack good roads, clean water, electricity, quality schools, and functional health facilities. High rates of youth unemployment and poverty have further exacerbated social problems, including rural-urban migration and low community participation in development initiatives. Additionally, limited government presence, poor policy implementation, and

weak local institutions have hindered the success of community-based projects.

There is a growing concern that the top-down approach to development planning, with minimal input from local communities, has contributed to the ineffectiveness and unsustainability of many interventions. Moreover, traditional institutions, which could play vital roles in mobilizing and sustaining community development, are often sidelined or lack the capacity to influence decision-making. Lack of consultations, cooperation among community members and participation for community development projects among others has grossly pre-empted the functionality of community transformation. These has also caused barriers for non-existence of services concerning water supply and services in the rural areas, sanitation, maintenance of properties and environmental awareness. This is the crux of the problem and why this research was embarked upon. It is against this backdrop that this study sought to ascertain the extent to which provision of rural water services could enhance community development in the study area.

Purpose of the Study

The purpose of this study therefore, was to investigate provision of rural water services and community development in terms of survival, improvement of quality of life and agricultural production in Northern Senatorial District of Cross River State, Nigeria.

Research hypothesis

There is no significant relationship between provision of water supply services and community development in terms of survival, improvement of quality of life and agricultural production in Northern Senatorial District of Cross River State, Nigeria.

Methodology

The study adopted correlational survey design aimed at investigating the extent of the relationship between provision of rural water services and community development in Northern Senatorial District of Cross River State, Nigeria. The population of the study comprised twenty thousand three hundred and thirty-eight (20,338) adults both male and female between 18-50 years residing in communities where provision of rural water services has carried out her developmental programmes within the study area. The sample size of six hundred and eleven (611) adult male and female respondents was drawn from the entire population. Purposive sampling technique was adopted for the study. Data was collected using questionnaire titled 'Provision of Rural Water Services and Community Development Questionnaire (PHSCDQ). The instrument was validated by three experts in Measurement and Evaluation in the University of Calabar. Cronbach alpha method was adopted to ascertain the reliability estimate for the variable. Forty (40) respondents who were not part of the study sample were used for the reliability text and the coefficient obtained ranged from 0.73 to 0.83. This coefficient showed that the

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instrument was reliable and can be used for data collection. The data obtained was analysed using Pearson Product Moment Correlation and tested at 0.05 level of significance.

Result

Provision of rural water services and community development in Northern Senatorial District in Cross River State, Nigeria. Provision of rural water service is the independent variable in this hypothesis while community development is the dependent variable. Pearson Product Moment Correlation statistics was used for data analysis. The result of the analysis is presented in table 1.

TABLE 1: Pearson product moment correlation analysis of the relationship between provision of rural water services and community development

Variables	N	X	S.D	Df	r-cal	p-val
Provision of rural water services	603	18.53	2.47			
				602	.624	.000
Community development	603	32.67	8.09			

There is no significant relationship between provision of rural water services and community development in Northern Senatorial District. The independent variable in this hypothesis is provision of rural water services while the dependent variable is community development. These variables were both measured continuously. To test this hypothesis, Pearson Product moment correlation analysis was used and the result showed that there is a positive relationship between provision of rural water services and community development. As provision of rural water services increases, community development also increased. Thus, the hypothesis that stated that there is no significant relationship between provision of rural water services and community development is rejected.

Discussion of Finding

The hypothesis stated that there is no significant relationship between the provision of rural water services and community development in Northern Senatorial District of Cross River State. The result of the analysis showed that there was a positive relationship between the provision of rural water services and community development in Northern Senatorial District of Cross River State. The result of the analysis was expected since water is an essential commodity for survival and the improvement of quality of life. The result of the findings is in line with the study of Kailash & Padam (2017) who investigated the role of water resources in socio-economic development in Nainital India. The findings revealed that lack of water is a barrier to sustainable socio-economic development and also that lack of development is a barrier to

solving water problems. The findings of Granahan (2012) who averred that the capacity of a city to support its population and economic activity is related to adequacy of water supply. The findings are also in agreement with Linsely, (2014) who opined that water as an input to productive process has a variety of dimensions since most productive activities involve water use. At a fundamental level, water contributes to a wide variety of natural productive process, including directly productive activities such as element of basic economic infrastructure. The findings of Babasanya, Odidi, Olafemi, Alabi Onwuegbunam, Akanni & Toe (2013) agreed that water supply in the area served to impact on the programme's capacity to achieve its objective of enhancing socio-economic activities in the area.

The findings of the study also align with the study of Adenipekun (2013) who observed that water supply was only barely available to the rural dwellers, thereby impacting adversely on their individual and collective development efforts.

Kailash et al., (2017) opined that water has always played a central role in human societies. Water is a basic essential to all world's' inhabitants. Water is a key driver of sustainable growth and development, water is quite literally a source of life and prosperity. Water permeates all aspects of life on earth. Like the air we breathe, water sustains human, animal and plant life. It provides vital services for human health, livelihoods and well-being and contributes to economic growth and sustainability of eco-systems (Kailash et al., 2017). Water is an essential component in the society and is at the centre of economic, social and community development. It is vital to maintain health, grow food, manage the environment and create jobs. Better access to clean water, sanitation services and water management creates tremendous strategy for economic growth of any community. Good management of water brings more certainty and efficiency in productivity across economic sectors and contributes to the health of a nation. Kailash et al., (2017) averred that water is a critical part of most community environmental services on which our ecosystems depend. Water requires optimal management to control scarcity and completion for use due to population growth, increasing demand, climate change and declining water supplies. Investment in water and sanitation systems in developing economics brings a multitude of economic and social benefits. Water is very important in our national economic welfare.

Conclusion

The provision of safe and reliable water supply services holds transformative power for community development. When communities gain access to clean water, the results are immediate and far-reaching, improved health, enhanced educational opportunities, increased agricultural productivity, gender equality, and stronger local economies. Water is not just a basic need; it is a foundation upon which sustainable, empowered, and resilient communities are built. Encouragingly, progress is being made. Innovative technologies, community-led initiatives, and stronger policy commitments

around the world are proving that sustainable water solutions are both achievable and impactful. Programs that prioritize local participation, integrate environmental protection, and promote equitable access are demonstrating lasting success. Looking ahead, a future where every community enjoys reliable water services is within reach. By continuing to invest in smart infrastructure, inclusive governance, and community empowerment, we can ensure that clean water becomes a catalyst for development rather than a barrier. With shared responsibility and continued commitment, water can truly serve as a pathway to healthier, stronger, and more vibrant communities.

Water supply services is an essential commodity for survival and the improvement of quality of life for health. Water is the core of sustainable development and is critical for socio-economic development, healthy ecosystems and for human survival itself. It is vital for reducing the global burden of disease and improving the health, welfare and productivity of populations. Efforts made to maintain or restore physical, mental, or emotional well-being especially by trained and licensed professionals are geared towards enhancing community development. Based on the findings of the study it is concluded that there is a significant relationship between provision of water supply services and community development in terms of active participation in organizational growths, economic stability and promotion of community development in Northern Senatorial District of Cross River State, Nigeria.

Recommendations

Based on the finding of the study, it is recommended that government, community developers and Non-Governmental Organisations (NGOs) should awaken their sense of consciousness to embarking on sensitization that will positively redirect the thinking of people as regards to the pivotal role water supply services plays to communities and re-evaluate the performances and multi-level technicalities explored to handling services concerning reproductive water services issues; provide robust information and communication network structures in rural communities that will enhance and maintain water services.

Government and non-governmental organisation should also sponsor resilient community agents and specialists on water supply fields for international programmes that will comparatively study the similarities and differences, weaknesses and strengths, benefits and disadvantages, modalities and principles of water services that exists outside Nigeria. This will improve Nigerian's trajectory towards global best practices and avenues to enhancing communities in the health sector.

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