

**KOGI STATE UNIVERSITY, ANYIGBA  
FACULTY OF SOCIAL SCIENCES**

**1<sup>st</sup> Annual International Conference**

*Theme:*

**Social Sciences and  
Contemporary Issues**



**From FASS Conference Organized by the Faculty of Social Sciences Kogi State  
University, Anyigba Anyigba, Kogi State 11th-14th March, 2020**

**Editors:**

**Prof. Adesola Ogidiolu,**

**OchejaAkoji (Ph.D),**

**Enejo Kennie Enojo (Ph.D) &**

**Fr. Damian Amana.**



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Knowledge, skills and learning  
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We honour your virtue**

**KOGI STATE UNIVERSITY, ANYIGBA**  
**FACULTY OF SOCIAL SCIENCES**  
**1ST Annual International Conference**

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Contemporary Issues**



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[fasscon2020@vahoo.com](mailto:fasscon2020@vahoo.com)

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## **ACKNOWLEDGEMENTS**

No success story is ever a narrative of a lone actor, for in one way or the other, remotely or proximately, visibly or behind the scene, many a hand had helped in the honing of the success story.

When we conceived the concept of a first conference of the Faculty of Social Sciences, the hurdles were in hundreds and the nay-sayers, more than multiple. However, with undaunted spirits of courage, collaboration, and cooperation, we dreamed, we dared and we delivered. To the source of all wisdom and knowledge, be thanks and gratitude for the inspiration and enablement.

Our unreserved gratitude to the University Management and staff- then and now, your candid encouragement was a big boost to the success of the debut conference in the Faculty of Social Sciences at Kogi State University, Anyigba.

Special thanks to Prof. M. S. Audu who delivered the lead paper, all our faculty Professors, all our invited dignitaries. To the organizing committee, thanks for your spirit of dedication and commitment to our communal course. Lecturers in the faculty of social sciences deserved a big pat on the back for your cooperation with and active participation in the organization and execution of the faculty conference.

Finally, it is practically impossible to mention the name of every single person who in one capacity or the other contributed to the success of our first faculty conference. To every person innumerable to mention who gave a helping hand in the planning and execution of the faculty conference, we say a sincere thank you.

Prof. Adesola Ogidiolu (Dean)

Faculty of Social Sciences.

## **PREFACE TO THE CONFERENCE PROCEEDINGS**

We are very pleased to present the proceedings of the first annual conference of the Social Sciences Faculty FASSCON 2020 which is a permanent record of the peer reviewed version of seventy (70) papers out of what was presented.

This conference held on the beautiful campus of Kogi State University, Anyigba from 11<sup>th</sup> to 14<sup>th</sup> March, 2020. It Illuminated our minds as it provided a National forum to confer, present, discuss and exchange innovative ideas and trends in contemporary issues with the lead paper “Social Sciences and Contemporary Issues in Nigeria” by Professor M.S Audu. This major conference team was related to five topical tracks on key National Issues ranging from the Economy; Geography and Environment; Communication, Media Studies and Library; Politics, Governance and Conflict; and to the Society.

With a total of ninety-six (96) papers presented in twelve (12) syndicates under section chairmen that were carefully selected on the basis of their international pedigree in respective specializations, and the large turnout of delegates from various institutions across the six geopolitical zones of Nigeria, it was highly gratifying and made the conference a huge success.

We appreciate the efforts of the authors who presented papers because of which the conference became a success story. The professional efforts of peer reviewers improved the quality of the papers and we are highly grateful. Above all, we recognise with joy, the Dean, Faculty of Social Sciences, Professor Adesola Ogidiolu and his team for setting the pace in the faculty after two decades of existence.

Last but not the least, we are thankful for the support of the then acting Vice Chancellor, Professor Tai Oluwagbemi which was not just a support but an inspiration to the organizers. The conference has come to stay and its now an annual academic cross fertilization of ideas.

**OCHEJA, Akoji (Ph.D)**

**(Chairman LOC)**

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**ASSESSMENT OF THE STATUS OF WATER SUPPLY IN  
UNGWAN ROMI, KADUNA METROPOLIS.**

**Abuh, Paul Ojochenemi<sup>1</sup>, Ogunkolu Ayodeji Bolade<sup>1</sup>,**

**Joshua Ogwuche<sup>2</sup> Pelemo, Samuel Olu<sup>1</sup>**

**1 Department of Geography and Environmental Studies, Kogi State University,  
Ayingba.**

**2 Department of Public Administration, Kwara University, Wukari, Taraba State.  
paulabuhO@gmail.com. abuh.po@ksu.edu.ng. 08060019170**

**ABSTRACT**

*The study conducted an assessment of the status of water supply in Ungwan Romi, Kaduna metropolis. A total of 375 copies of questionnaires was distributed and 354 representing 94.4% were returned for analysis. The study employed multi-stage sampling techniques in the distribution of the copies of Questionnaire. The results of the study show that the majority of the respondents 25.1% agree that boreholes is the major source of water supply, 59.3% respondents agree that water supply in Ungwan Romi is not adequate and 34.8% of the respondent source of water location is off neighbourhood. While, 41.8% are effected with Typhoid fever. Chi-Square ( $X^2$ ) was used to test the hypothesis  $H_0$  which state that the reasons for inadequate water supply does not differ significantly across the study area. The result accepts  $H_1$  which states that, the reasons for inadequate water supply differs significantly across the study area since 0.016 the asymptotic significance is less than the significance confidence level which is 0.05. The study recommends that individuals, the community and government should be involved in the supply and provision of adequate water.*

*Keywords: Water status. Population growth. Water supply. Neighbourhood. Perception*

**Introduction**

Urbanization is essentially the concentration of people in urban center (Agbola, 2014; UN-Habitat, 2015). In most developing countries, rural-urban migration has been the major reason for urbanization and the drift to urban center is due to perceived job opportunities (Gaza 2008). However, this job opportunity is not readily available. Consequently, the migrant prefer to remain in the urban center and get involve in informal sector. In the long run the cost of living becomes high forcing the migrants to move to alternative settlements close to the city center. This will provide them with the opportunity to reside in such area and continue to come to the city center for their daily economic activities. Essentially, this is the case of Ungwan Romi an emerging new settlement in Kaduna Metropolis. Consequently, one major challenge of this new settlements is water.

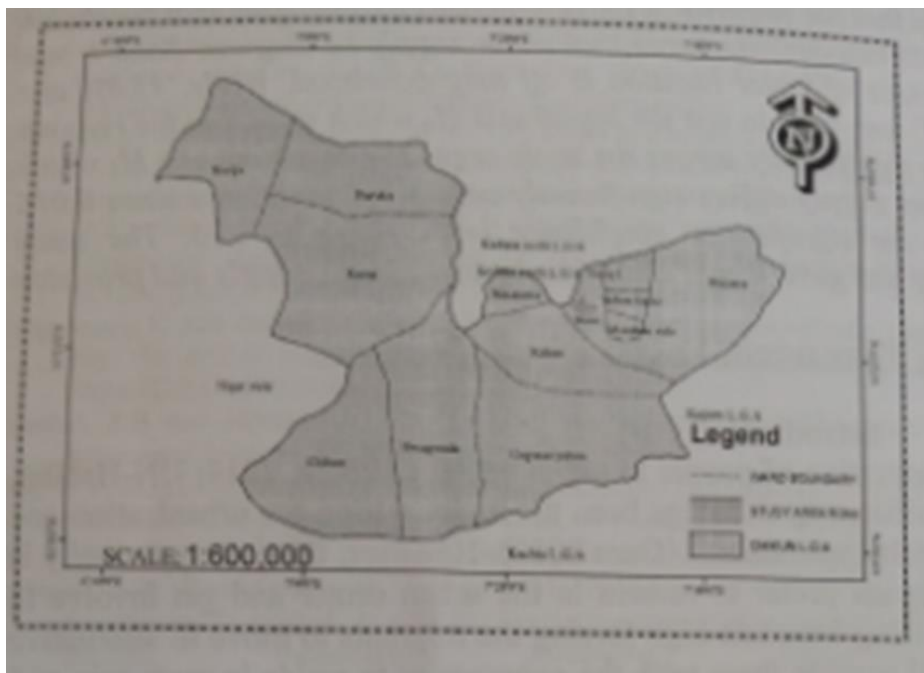
Water is said to be an indispensable commodity and life would be impossible without it. People can't live for a few days without water (Nealer, 2009). Water is the basics for sustenance of human life. Water is a universal resource which, because of its free occurrence in nature, is often taken for granted and abused, especially in third world nations where information is neither readily accessible, nor disseminated to society. Abundant as it may seem, water, in its clean state, is one of the rarest elements in the world (Omole and Longe, 2008). Water, as it is generally alluded to, sustains life. It is impossible to survive without the availability of water. Water has been viewed as the global common heritage and everyone should, effectively, have an inalienable social and political right to it. However, fresh water shortage has been noticed around the globe (Ele, 2013). In particular, sustainable development

goal No 6 ensures availability to sustainable management of water and sanitation for all (<https://sustainabledevelopment.un.org/content>). Adequate access to potable water means that women and children will spend limited time in fetching water which could be used actually for drinking, cooking and other tasks (Ishaku 2011). Even though water is one of the precious gifts to mankind, lack of access to safe drinking water and basic sanitation is one of the problems affecting billions of people around the world (Hesperian Foundation 2005, Antonio, 2005). This is to be so in the developing countries where level of access to water and water related facilities are said to be very low. The importance of water quality continues to be highlighted because bad water can cause diseases and contribute to endemic disease from pathogens (Payment and Hunter, 2001).

Several studies have been done on water supply especially in Nigeria. For instance, Obute (2010) studied residential water demand and supply in Awgu local government area in Enugu state, Dauda (2012) studied the impacts of population growth on domestic water demand and supply in Kaduna while Yunusa (2001) studied crises of urban water provision: water supply in Zaria between 1998 and 2000. However, this research attempts to assess the status of water supply in Ungwan Romi Kaduna metropolis. To achieve this, the study identifies the source of domestic water supply for domestic water supply for domestic purpose, determine the status of the water supply and examine ways to mitigating the challenges to water supply for domestic purpose for the residents of the study area.

### Study Area

Ungwan Romi is a town inside Chikun Local Government area and is located geographically, between Lat.10°25' 0"N to Lat.10°26'30" N of the equator and Long.7°25'10" E to Long.7°26'50" E of 2 Greenwich Meridian. It is located in the Southern part of Kaduna State and shares common boundaries with Kaduna North Local Government in the North. In the South western part, it has a common border with State and in the East it shares boundaries with Kajuru and Kachia Local Government Area (Bako, 2006).



**Figure 1: Chikun L.G.A Showing Study Area**

**Source; Department of Geography, Kogi State University 2019**

## **Methodology**

The study employed the use of multi-stage sampling technique. Reconnaissance survey and personal observation was undertaken. Primary data and secondary data were utilized during the study. A total of 354 copies of questionnaire were returned for analysis. Using purposive sampling technique, ten streets were selected namely, Alkali, Galadima, Ayuba bako, Natasa and Ajiya. Others are Community, Zico, Tunga, Waziri and Sa Gbayi streets. These streets were selected because they are densely populated and well organized. Systematic random sampling techniques was employed in the distribution of the copies of questionnaire. The distribution of the copies of questionnaire took place between the hours of 4-6pm daily. This is because the residents will be back from their daily economic activities. The study enters the first compound along the street and distributed the copies of questionnaire to any available individual in the compound capable of responding to the questionnaire. Then moves to the 3rd, 5th and 7th and so on until the duration of time is over. The data obtained was processed by coding the completed questionnaire into computer using SPSS version 23. Descriptive and inferential statistics were used to analyze the data. Chi- Square(X<sup>2</sup>) was employed to test the null hypothesis that the reasons for inadequate water supply does not differs significantly across the study area.

## **Results and Discussion**

### **Sources of Water in Ungwan Romi**

The source of water for domestic use in Ungwan Romi is a critical aspect of this study. This is so because the source will assist in assessing the status of water supply in the study area. Table la indicates the distribution of respondent by major sources of water supply for domestic purpose in the study area. The table reveals that the majority of the respondents 25.1% opinion borehole, 23.2% rainfall and 20.6% well. While 20.6% and 10.5% opinion water vendor and River respectively. This is expected because private and government are beginning to invest in quality water supply. The findings corroborate with the studies by Olugbamilo and Ogunyemi (2015) that the dominant source of water supply in Owo urban is Borehole (25.7%). The implication is that most of the residents of Ungwa Romi, depend on untreated/unhygienic water supply from rainfall, well and water vendor. This may lead to contacting water borne disease. Also the table indicates the sources of water location in Ungwan Romi. This is important as the condition of water accessibility in the study area is examined. From the table lb (20.9%) of the respondents have source of water supply within compound and (34.8%) off their neighbourhood. While (34.2%) of respondents have water source located outside compound and (10.2%) within neighborhood. This is a strong indication that residents move some distance from their home to get water. Uwazie (2009) remarked that reducing the distance to water supply source in rural areas will reduce the stress of women and children who can now devote more time to income generation and education, and will improve the health of community members being ravaged by water related diseases. The implication is that the water collected outside/off neighborhood may be expose to water borne disease as the containers may not be clean or the water may be contaminated before being use due to non-covering of the container.

<b>Variable</b>	<b>Frequency(354)</b>	<b>Percentage (%)</b>
<b>Source of water supply</b>		
Bore Hole	89	25.1
Well	73	20.6
Rainfall	82	23.2
River	37	10.5
Water Vendor	73	20.6

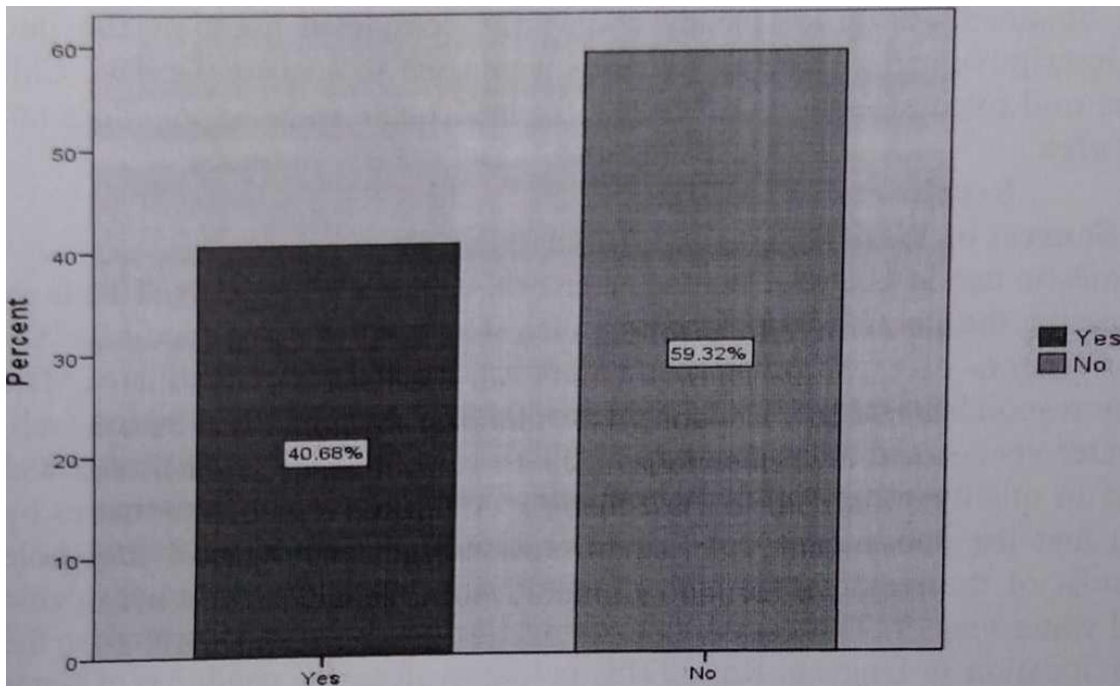
**Source: Fieldwork 2019**

<b>location</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Within Compound	74	20.9
Outside Compound	121	34.2
Within Neighbourhood	36	10.2
Off Neighbourhood	123	34.8



### Status of Water Supply

This section discusses the status of water supply for domestic purpose in the study area. Figure 3 indicate the distributions of respondents by adequacy of water supply for domestic purpose in Unwan Romi. The figure shows that (40.7%) of the respondents were of the opinion that water supply in the area is adequate while (59.3%) of the respondent were of the opinion that water supply in the area is not adequate. The result reveals that Ungwan Romi experience inadequate water supply for domestic purpose. This is expected as most societies in developing Countries experiences inadequate water supply given the rate of population growth.



Source: Fieldwork 2019.

Table 2 indicates the reasons for inadequate water supply in Ungwan Romi. The table shows that the major reason for inadequate water supply is increasing population growth with (34.5%) of respondents, excessive use of water without storage (30.8%), inadequate electricity to pump water by water vendor (24.9%) and long distance from water sources (9.8%). This is expected as Ungwan Romi is experiencing population growth as an emerging settlement in Kaduna metropolis and its proximity to the city centre. Furthermore, Table 3 reveals the reasons for inadequate water supply across the locations (Street). The table indicates the major reasons for inadequate water supply in Zico and Tunga Street (14.7%) respectively to be excessive use of water without storage. And Galadima and Community Street (13.9%) respectively major reasons for inadequate water supply to be increasing population growth. Also, long distance to source of water supply is the major reason for inadequate water supply in Ajiya, Community and Tunga Street (17.1%) respectively. Similarly, the major reason for inadequate water supply in Community Street (20.5%) is inadequate electricity to pump water by water vendor. The result is expected as reason for inadequate water supply differs with location of respondent given the peculiarity of the streets.

**Table 2: Reasons for Inadequate Water Supply by Location**

Reasons	Frequency	Percent%
Increasing population growth	122	34.5
Excessive use of Water without Storage	109	30.8
Inadequate Elect, to Pump water by Water	88	24.9
Vendor Long distance to source	35	9.8
Total	354	100

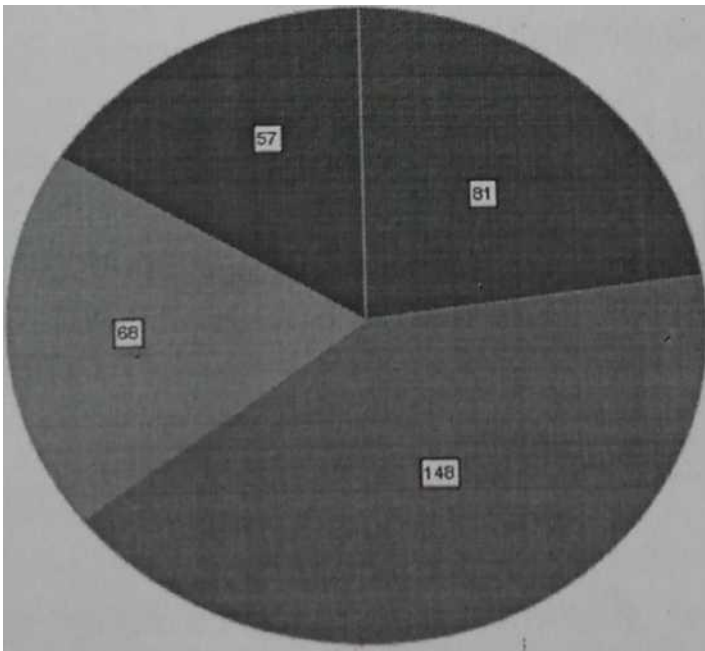
Source: Field Work, 2019

**Table 3: Reasons for Inadequate Water Supply by Location**

Location (Street)	Increasing population growth	Excessive use of Water without	Inadequate Electricity to Pump	long distance to water sources	
Alkali	12(9.8%)	5(4.6%)	16(18.2%)	3(8.6%)	36(10.2%)
Sa Gbayi	4(3.3%)	3(2.8%)	3(3.4%)	0(0.0%)	10(2.8%)
Galadima	17(13.9%)	21(19.3%)	7(8.0%)	5(14.3%)	50(14.1%)
Natasa	10(8.2%)	11(10.1%)	5(5.7%)	0(0.0%)	26(7.3%)
Ayuba	12(9.8%)	12(11.0%)	5(5.7%)	5 (14.3%)	34(9.6%)
Aiiya	12(9.8%)	4(3.7%)	12(13.6%)	6(17.1%)	34(9.6%)
Communit	17(13.9%)	9(8.3%)	18(20.5%)	6(17.1%)	50(14.1%)
Zico	14(11.5%)	16(14.7%)	11(12.5%)	3(8.6%)	44(12.4%)
Tunga	9(7.4%)	16(14.7%)	5(5.7%)	6(17.1%)	36(10.2%)
Waziri	15(12.3%)	12(11.0%)	6(6.8%)	1(2.9%)	34(9.6%)
Total	122(100.0)	109(100.0)	88(100.0)	35(100.0)	354(100.0)

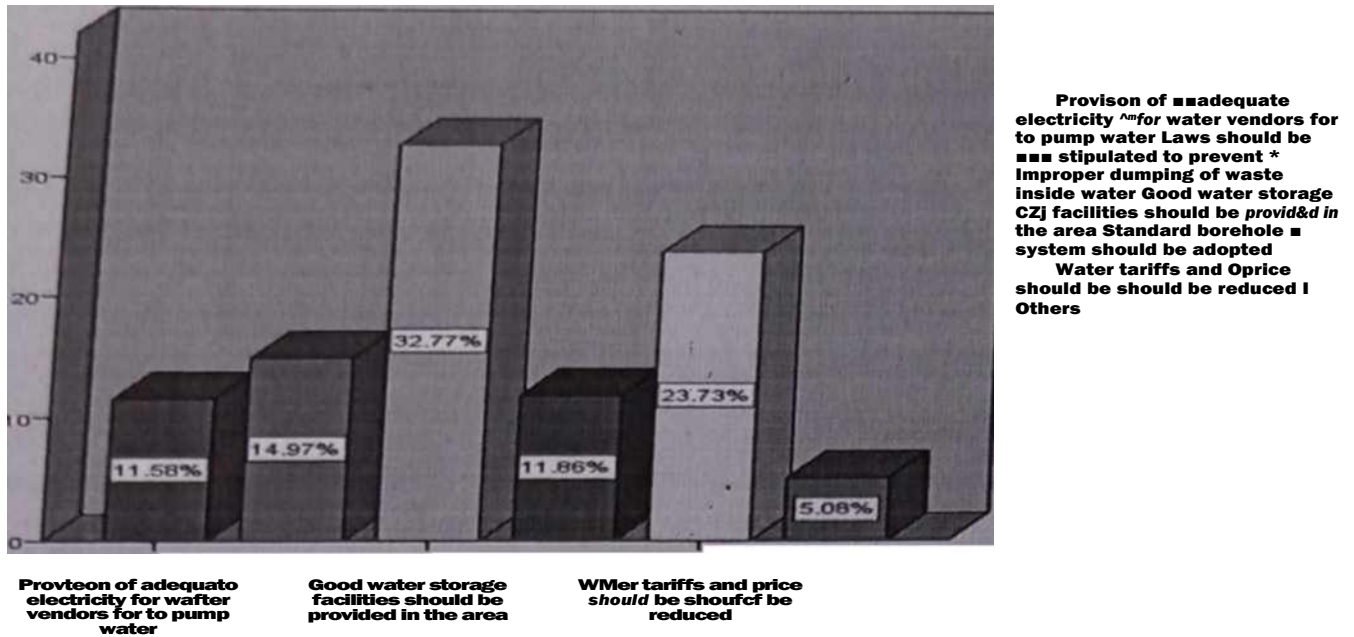
Source: Field Work, 2019

The perception of residents was sought on the effect of inadequate water supply for domestic purpose with respect their health. Figure 3 shows the distribution of respondents by types of diseases affected. Table 3 further indicates that the majority of the respondents (41.8%) were affected by Typhoid, (19.2%) Diarrhoea and 16.1% were affected by others diseases. This corroborates with the findings of Basu (2015) that insufficient water for domestic activities can result to poor hygiene which spreads water-related diseases such as diarrhoea, cholera, malaria, dysentery etc.



- Cholera
- Typhoid
- **Diarrhea**
- Others

**Mitigating the problem of Inadequate Water supply:** Mitigating the problem of inadequate water supply for domestic purpose is very crucial given the fact that Ungwan Romi will continue to experience population growth. Figure 4 shows that (11.58%) of the respondents suggested that adequate electricity should be provided for water vendors to pump water from bore hole (14.49%) suggested that laws should be set aside to prevent improper dumping of waste inside water channels, and (32.77%) of the respondents



Suggested that good storage facilities should be provided in the area. While (11.86%) suggested that standard borehole system should be adopted in the area, (23.73%) said water tariffs should be reduced, and (5.08%) were of other suggestion. Conserving water to reduce water waste is a first step in water management (Rahman, 2012). Thus the communities should adopt various water conservation measures such as installing concrete tanks.

Figure 4 Distribution of Respondents by Mitigation to Inadequate Water Supply  
Source: Fieldwork 2019

### Test of Hypothesis

The study tested the stated hypothesis put forward, which is Ho: The reasons for inadequate water supply differs significantly across the study area. This was achieved by cross tabulating reasons for inadequate water supply by the locations across the study area.

**Table 4: Showing Chi-Square Value and Degree of Freedom**

	Value	df	Asymptotic Significance (2-sided)
Person Chi-Square	45.124	27	.016
Likelihood Ratio	50.123	27	.004
N of Valid Cases	354		

#### **Decision Rule**

Since 0.016 the asymptotic significance is less than the significance confidence level which is 0.05 we hereby reject  $H_0$  which state that the reasons for inadequate water supply does not differ significantly across the study area, and. accept  $H_1$  which states that; the reasons for inadequate water supply differs significantly across the study area

#### **Conclusion**

Water is key to the existence of man and an indispensable commodity (Abuh, 2019). Therefore, the supply of water for domestic purpose should be paramount. However, Ungwan Romi, an emerging urban settlement is experiencing inadequate water supply and the residents are affected with various diseases associated with inadequate water. The perception of the residents on reasons for inadequate water supply includes increasing population growth, long distance to source for water, inadequate water storage facilities and inadequate electricity to pump water by water vendors. It is expedient that all stakeholders should be involve in the supply and provision of adequate water to the residents of Ungwan Romi, Kaduna Metropolis.

## Recommendations

Base on the findings of the study, the following recommendations are made.

- Adequate electricity should be supplied to the area in order to make the supply of water easy because most of the machines that are used for pumping water needs electricity to work.
- Good water storage facilities such as tanks, reservoirs etc., should be provided in the area to enable the community to store water instead of using excessively without storing.
- Provision of more standard bore-holes and wells in the area would help reduce the trekking distance to where boreholes are sited as well as streams and spring.

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