Research Paper

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The Effectiveness of Urban Water Corporation in Delivering Water Service in Wau Municipality

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ABSTRACT

Water delivery service is the responsibility of all the institutions in every city. According to the Sustainable Development Agenda (SDA), every citizen has the right to have access to drinking water at all times. The objective of the study was to identify the impacts of Urban Water Corporation in the delivery of water services, determine public opinion on water service delivery, and assess the challenges Urban Water is facing in delivering water services in Wau Municipality. The study adopted explorative design for a survey to examine research questions. The population was 120 people, which includes the communities and staff of the urban water corporation. The study applied the stratified random technique to the same group of elements, from which a sample size of 92 respondents was selected via the Yamane 1967 formula. Purposive sampling and simple random sampling methods were adopted in the selection of participants. The questionnaire was used as the main primary data collection instrument, whose validity and reliability were tested by Marial Ajieth. The data was analyzed quantitatively by using descriptive statistics, frequency tables, and percentages. The study found that the impact of water service delivery by the urban water corporation is only seen in the main municipality center; other locations were not impacted. The opinion of the public about the water delivery service in Wau municipality was rated with a mixed reaction, where one respondent said they were happy about water services and the other said they were not happy. The study noted that the lack of funds to support water supply in Wau Municipality was a major concern. The study recommended that there is a need to ensure the provision of enough and safe drinking water, prioritize that the majority of citizens get water from the water system more than wells, that the urban water corporation should provide enough water for all public use in Wau Municipality, provide funds to support water supply, and ensure that there is equitable water distribution for all locations in Wau Municipality.

Keywords: Water, Corporation, Municipality, Delivery, Services

INTRODUCTION

Globally the water is an essential part of human life. The sustainable development agenda, 2015, 2.1 billion people lacked safely managed drinking water services globally and 844 million people did not have basic drinking water services (WHO/UNICEF, 2017).

Regionally the issues water remain standing point that need to be addressed the role of institutions is to provide information and assurance about the behavior of others, offer incentives to behave to the benefit of the collective good and monitor and sanction opportunistic behavior (North, 1990; Ostrom, 1990). Ways must be explored deal effectively with

complexity, uncertainty, and institutional dynamics in the field of common-pool resource management (Ostrom, 2005). They imply interactions between ecological and social systems (Ostrom, 2009), the diversity of livelihoods, resources and uses, the variability of actors and their practices within heterogeneous communities, multiple and overlapping scales, and the often nontransparent ways in which institutions work and power operates (Cleaver and de Koning, 2015). Understanding rural institutions requires unraveling their historical roots as well as the frameworks through which certain kinds of institutions have been advanced in the international development sector. Blaikie (2006) highlights that state formation following independence set the political environment for the interface between international funding institutions promoted that have communitymanagement and based natural-resource governments. Disregard national of as Africa's historical legacies, such decolonization (Mamdani, 1996), or the historically grown complexity of governance place structures decentralization and institutions formed in its wake at risk of failing (Ogbaharya, 2008).

Nationally the new nation, the Republic of South Sudan (RSS) faced issues of water delivery. Cleaver (2012) building on the work of Douglas (1970, 1994), argues that if institutions can be placed in a wider governance framework, thereby focusing on the constituent processes and practices of "institutional bricolage," then this can help us "to understand the ways in which actors both reproduce and reconfigure such governance arrangements" (Cleaver, 2012, p. 213). Therefore, South Sudan urban water cooperation become the major public

company that ensure urban Town and rural area have safe drinking water. According to her, it is highly unlikely that a single institutional solution will represent all users and livelihood interests. However, practical approaches often require policy simplification and standardization institutional form. Drawing on the sociocultural variability perspective of cultural theory, this research hopes to contribute to the field of rural water services in theory and practice by advancing an approach recognizing institutional pluralism. This concept acknowledges that the governance of resources falls upon a variety of scales with blurred boundaries between domains of the local and the global, between which "meaning" - symbolic authority, arrangements, values - "leaks", as it is potentially borrowed both ways (Douglas, 1987; Cleaver and de Koning, 2015). Cleaver (2012) The South Sudan Urban Water Corporation (SSUWC), a water utility responsible for construction and management of water supply facilities and housed within the Ministry of Water Resources and Irrigation (MWRI), is financially and technically unsustainable due to the high non-revenue water (NRW) ratio and the low. The aim of the study was to have better knowledge and understanding on effectiveness of Urban water corporation in delivery water services in Wau Municipality. The specific objective of this study will be: To identified the impacts of Urban water corporation in services delivery water in Municipality, to determine public opinion on water services delivery, and to assess challenges Urban Water is facing in delivering water services in Wau Municipality.

Figure 1.1 Conceptual frameworks **Independent Variables Dependent Variables Urban Water Corporation** Water services delivery The impacts of Urban Adequate water water corporation suppliers delivery water services Water system The public opinion on connected water services delivery Clean drinking waters challenges Urban Water available is facing in delivering water services

Source: research data (2021)

LITERATURE REVIEW

According to Harvard law review report indicated water like any other things of general concern, water has been the subject of much legal thought, and different theories have been worked out. It appears there from that possible theories of water law take form according to certain underlying ideas. According to Samuel C. Wiel (2021) Existing or proposed systems of water law have one first elemental principle for all of them. In the beginning they have the same root in their attitude to running water as a physical substance. It is the idea that water running in streams and watercourses is not of itself the property of any person and cannot be.

Although differing with regard to the regulation of the use of the water, yet the water itself, by all of them, and by probably all people, is considered not to belong to any person. There for the sustainable develop agenda (SDA) call for right of every one to have clean drinking water as required by the laws. The Civil Code of California, I410, now uses the expression that waters " are the property of the people of the state." But for present purposes I only want to point out that all systems of water law adopt the elemental idea that running water while in its natural situation is not owned; that the law regulates the use of it, but that rights of flow and use are what the law recognizes, and not property in the water itself.

Theory of water laws

This theory was coined by Samuel C. Wiel in 2021. That theory said they water does not belong to anyone. It calls for everyone to use water without objection. According to Havard law review report indicated water like any other things of general concern, water has been the subject of much legal thought, and different theories have been worked out. It appears there from that possible theories of water law take form according to certain underlying ideas. According to Samuel C. Wiel (2021) Existing or proposed systems of water law have one first elemental principle for all of them.

In the beginning they have the same root in their attitude to running water as a physical substance. It is the idea that water running in streams and watercourses is not of itself the property of any person and cannot be. Although differing with regard to the regulation of the use of the water, yet the water itself, by all of them, and by probably all people, is considered not to belong to any person. Therefore, the sustainable develop agenda (SDA) call for right of every one to have clean drinking water as required by the laws. The Civil Code of California? I410 now uses the expression that waters "are the property of the people of the state." But for present purposes I only want to point out that all systems of water law adopt the elemental idea that running water while in its natural situation is not owned; that the law regulates the use of it,

but that rights of flow and use are what the law recognizes, and not property in the water itself.

Theory of change

This theory was coined by Auguste Comte (1798–1857), Theory of Change emerged from the field of program theory and program evaluation in the mid-1990s as a new way of analyzing the theories motivating programs and initiatives working for social and political change. The theory has been applied in social economic and political change. The of change was also used by the IRC International Water and Sanitation Centre's Sustainable Services at Scale (Triple-S) project (2012). Justifies the course of action set by the project in achieving its goal of contributing to provision to all people of sustainable water services, The sustainable develop agenda (SDA) call for right of every one to have clean drinking water as required by the laws. Theory has the Assumptions related to the connections between the problem and the underlying cause's Current politicaleconomy of rural water leads. Water in Africa has been fetched in the long distance for use at homes. However, the emergency of government and the development water has to be made available to house hold within short distance. This support through institution set up by the government such as ministry of water and irrigation, South Sudan Water Corporation.

MATERIALS & METHODS

The study used an exploratory research design. This design brought out a wellrounded picture of the situation being developed, a more systematic investigation, and formulation of new research questions and direction for future research techniques (Muthondeki, 2017). The target population refers to the total number of representative respondents, the elements, or total environment of interest to the researcher (Kothari, 2014). The target population was selected from five categories: Staff for urban corporation, communities' members

(Publics)). Accordingly, 120 people identified (67 staff from urban water corporation and 53 community members from various selected location. These were considered because represents the population for this study. The researcher used questionnaires to collect primary and quantitative data. questionnaires had open ended questions and closed ended question's structure. The qualitative primary data will be collected using focus groups and key informant interviews. The respondents will sign interview signed the consent forms which confirmed their willingness to participate in the study.

STATISTICAL ANALYSIS

This is the process of organizing, interpreting, and presentation of data. Since the research was exploratory in nature. Descriptive data were collected therefore descriptive statistics technique employed to ensure that the masses of numerical data were organized, summarized in such a way that they can be meaningfully understood and communicated (Bryman, 2016). The questionnaires will be checked completeness and consistency information at the end of every field, data day and before collection storage. Information from questionnaires was coded and related information grouped together. The coding was considering all the sections of the questionnaire. The quantitative data from the completed questionnaires were cleaned, re-coded, and entered into the computer using a statistical package for social science (SPSS) for Windows version 26.0 for analysis. This data gathered from the questionnaire will be presented in percentages, frequencies, and distribution tables.

PRESENTATION OF THE RESULT

A total of 92 respondents were targeted for this study as a sample size. All questionnaires were distributed by the researcher to the respondents. 92(100%) of all questionnaires were filled and returned for analysis; According to Mugenda and Mugenda (2014), a response rate of 60% is considered good for a study; therefore 100% of this number suitable for this study

The finding in the Table 4.1 below indicated that 50(54.0%) of the respondents were male. The finding also shows that 42(46%) respondents were female. The study revealed that there were more males compared to female respondents who participated in this study. Table 4.1 below shows the result.

Table 4.1 Gender of Respondents N=92

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Category of the gender	Frequency	Percentage %									
Male	50	54									
Female	42	46									
Total	92	100									

Source: Field data (2023)

The finding in Table 4.2 indicated below shows that 41(45%) of the respondents were age category 46+. The finding also shows that 28(30%) respondents were age category 31-45. The remaining age of 25-30 were 23(25%) of the total. The findings in Table 4.2 below show the result.

Table 4.2 Age Distribution of Respondents N=92

Category of the age	Frequency	Percentage %
25-30	23	25
31-45	28	30
46+	41	45
Total	92	100

Source: Field data (2023)

The findings in Table 4.3 below indicated that 38(41%) respondents were primary education level. It shows that 28(31%) of the respondents were Secondary students. 19 (21%) of them were college

graduate,4(4%) of respondents had university level education. The remaining 3(3%) respondents had no formal education. Table 4.3 shows the education level of the respondents.

Table 4.3 Highest Education Level of respondents N=92

Education level	Frequency	Percentage %
None	3	3
Primary	38	41
Secondary	28	30
College	19	21
University	4	4
Total	92	100

Source: Field data (2023)

The finding in Table 4.4 below revealed that 67(73%) of the respondents were unemployed. The finding also shows that 25(27%) respondents were employed. Table 4.4 below shows the result.

Table 4.4 Occupation Status of respondents N=92

Occupation status	Frequency	Percentage %
Employed	25	27
Unemployed	67	73
Total	92	100

Source: Field data (2023)

The impacts of Urban Water Corporation in delivering water services in Wau Municipality

The research used descriptive analysis. The total respondents in this specific objective were 92. For analysis, descriptive statistics (frequency, percentage, and distribution table) were used for the level of agreement on a five-point Likert scale on the impacts of Urban Water Corporation in delivering water services in Wau Municipality. The Table 4.5 below shows:

Table 4.5 Descriptive statistics for the impacts of Urban Water Corporation in delivering water services N=92

The impacts of Urban Water Corporation in delivering water services in Wau Municipality	Strongly Agreed		Agreed		Neutral		Disagree		Strongly Disagreed		Tota	1
	F	%	F	%	F	%	F	%	F	%	N	%
Enough and safe water for drinking is provided in Wau Municipality?	35	38	22	24	0	0	12	13	23	25	92	100
Majority of citizens get water from Bore holes or local wells?	70	76	10	11	12	13	0	0	0	0	92	100
Water services Systems is connected across Wau Municipality?	11	12	24	26	24	26	10	11	23	25	92	100
The water systems are not functioning well in Wau Municipality?	44	48	15	16	0	0	23	25	10	11	92	100
Water provided by Urban water corporation is less expensive?	26	28	32	35	0	0	10	11	24	26	92	100

Source: Field data (2023)

Table 4.5 above reveals that 35(38%) respondents strongly agreed that there enough and safe water for drinking is provided in Wau Municipality, 22(24%) agreed, 12(13%) disagree, and 23(25%) strong strongly disagreed that enough and safe water for drinking is provided in Wau Municipality. 70(76%) strongly agreed that Majority of citizens get water from Bore holes or local wells 10((11%) agreed, and 12(13%) undecideds on the statement. 12(12%) respondents have strongly agreed Water services Systems is connected across Wau Municipality, 24(26%) 24(26.0%) undecided, 10(11%) disagreed and 23(25%) strongly disagreed. 44(48%) strongly agreed that the water systems are not functioning well in Wau Municipality. 15(16%) agreed and 23(25%) strongly disagree with statement and 10(11%)

strongly disagreed with statement. 26(28%) strongly agreed, 32(35%) agreed, and 10(11%) disagreed and 24(26%) strong disagreed on the Water provided by Urban water corporation is less expensive

The Public opinion on Urban Water Corporation delivering water Services in Wau Municipality

The research used descriptive analysis. The total respondents in this specific objective were 92 respondents for analysis; descriptive statistics (frequency, percentage, and distribution table) were used for the level of agreement on a five-point Likert scale on the opinion of Urban Water Corporation in delivering water services in Wau Municipality. These findings were presented as shown in Table 4.6

Table 4.6 Descriptive statistics for the opinion on Urban Water Corporation in delivering water services N=92

The Public opinion on Urban Water Corporation delivering water services in Wau Municipality		Strongly Agreed Agreed		Neutral		Disagree		Strongly Disagreed		Tota	1	
	F	%	F	%	F	%	F	%	F	%	N	%
Publics are happy about water services in Wau Municipality?	14	15	43	47	0	0	10	11	25	27	92	100
Urban water corporation does not provide enough water?	40	43	20	22	10	11	0	0	22	24	92	100
Urban Water services are very poor compare to Donkey water?	20	22	50	54	22	24	0	0	0	0	92	100
Urban water is expensive and not available all times?	27	29	49	53	0	0	0	0	16	17	92	100
Water systems are functioning well across Wau Municipality?	10	11	10	11	0	0	30	33	42	46	92	100

Source: Field data (2023)

Table 4.6 above reveals that 14(15%) respondents agreed that their Publics are happy about water services in Wau 43(47%) strongly agreed, Municipality 10(11%) disagreed, and 25(27%) strongly disagreed. 40(43%) strongly agreed that Urban water corporation does not provide enough water, 20((22%))agreed, 10(11%) undecided and 22(24%) strongly disagreed on the statement that Urban water corporation does not provide enough the statement. 20(22%) respondents have strongly agreed that the Urban Water services are very poor compare to Donkey water 50(54%) agreed, 22(24%) undecideds. 27(29%) strongly agreed, 49(53%) agreed Urban water is expensive and not available all time and 16(17%) strongly disagree with statement Urban water is expensive and not available all times. 10(10%) strongly agreed, 10(10%) agreed Water systems are functioning well Wau Municipality, 30 across (33%)respondents disagreed, and 42(46%) strongly disagreed. Water systems are functioning well across Wau Municipality

The challenges facing Urban Water Corporation in delivering water services in Wau Municipality

The research used descriptive analysis. The total respondents in this specific objective were 92 respondents for analysis; descriptive statistics (frequency, percentage,

and distribution table) were used for the level of agreement on a five-point Likert scale on the challenges facing Urban Water

Corporation in delivering water services in Wau Municipality. These findings were presented as shown in Table 4.7

Table 4.7 Descriptive statistics for the challenges of Urban Water Corporation in delivering water services N=92

The challenges facing Urban water corporation in delivering water services in Wau Municipality	Strongly Agreed		Agreed		Neutral		Disagree		Strongly Disagreed		Total	
	F	%	F	%	F	%	F	%	F	%	N	%
Lack of fund to support the water supply in Wau Municipality?	51	55	16	17	0	0	0	0	25	27	92	100
Lack of qualified staff to manage water system?	42	46	15	16	0	0	0	0	35	38	92	100
No equipments or tools to install water system in Wau Municipality?	30	33	30	33	10	11	0	0	22	24	92	100
Corruption and lack of accountability in the management of water?	50	54	32	35	0	0	10	11	0	0	92	100
There is bias in distributing water and Lack of maintenance of the system?	50	54	42	46	0	0	0	0	0	0	92	100

Source: Field data (2023)

Table 4.7 above reveals that 51(55%) respondents strongly agreed, 16(17%) agreed Lack of fund to support the water supply in Wau Municipality, 25(27%) strongly disagreed Lack of fund to support the water supply in Wau Municipality. 42(46%) strongly agreed that, 15(16%) agreed that Lack of qualified staff to manage water system, and 35(38%) strongly disagreed that lack of qualified staff to manage water system.

30(33%) respondents have strongly agreed that No equipment or tools to install water system in Wau Municipality, 30(33%) agreed, 10(10%) undecided 22(24%) strongly disagreed with the statement that no equipment or tools to install water system in Wau Municipality. 50(54%) strongly agreed that the Corruption and lack of accountability in the management of water and 32(35%) agreed and 10(11%)

undecideds strongly disagree with statement that corruption and lack of accountability in the management of water. 50(54%) strongly agreed, 42(46%) agree that there is bias in distributing water and Lack of maintenance of the system.

Ways of addressing challenges facing South Sudan Urban water corporation in Wau Municipality

The research used descriptive analysis. The total respondents in this specific objective respondents for 92 descriptive statistics (frequency, percentage, and distribution table) were used for the level of agreement on a five-point Likert scale on ways of addressing challenges Urban Water Corporation in facing delivering services in Wau water Municipality. These findings were presented as shown in Table 4.8

Table 4.8 Descriptive statistics for the ways of addressing challenges facing Urban Water Corporation in delivering water services N=92

Ways of addressing challenges facing South Sudan Urban water corporation	Stro Agre		Agreed		Neutral		Disagree		Strongly Disagree d		Tota	l
	F	%	F	%	F	%	F	%	F	%	N	%
Provided financial support to water system management?	67	73	25	27	0	0	0	0	0	0	92	100
Employing qualified staff in the water system management?	62	67	30	33	0	0	0	0	0	0	92	100
Provide equipment and tools to installed water services system?	40	43	50	54	2	2	0	0	0	0	92	100
Ensure accountability and transparency	50	54	42	46	0	0	0	0	0	0	92	100
Ensure no bias, in distribution of waters	30	33	29	32	0	0	18	20	15	16	92	100
So	ource:	Field l	Data (2	2023)								

Table 4.8 above reveals that 67(73%) respondents strongly agreed that there was need to provide financial support to water system management, 25(27%) agreed to the statement. 62(67%) strongly 30(33%) agreed to statement that employing the qualified staff in water system management. 40(43%) respondents have strongly agreed that Provide equipment and tools to installed water services system is ways to address challenges 50(54%) agreed, 2(1) undecideds. 54%) strongly agreed that the ensure accountability and transparency in water provision, 42(46%) agreed with the statement. 30(33%) strongly agreed ensure no bias, in distribution of waters, 29(32 %) agreed that ensure no bias, in distribution of water in Wau municipality.

DISCUSSION

The impacts of Urban Water Corporation in delivering water services in Wau Municipality

According to table 4.5 above, it reveals that

35(38%) respondents strongly agreed that there enough and safe water for drinking is provided in Wau Municipality, 22(24%) agreed, 12(13%) disagree, and 23(25%) strongly disagreed that enough and safe water for drinking is provided in Wau Municipality. From this analysis researcher noted there is enough and safe drinking water provided in Wau. The statistic also shows that 25% do not agreed to statement. This tells us that the water provided in Wau Municipality is not enough, therefore it covered limited areas On the other hand, 70(76%) strongly agreed that Majority of citizens get water from Bore holes or local wells 10((11%) agreed, and 12(13%) undecideds on the statement. This is true as the statistic shows. From the daily activities in Wau and the number donkeys providing water to community outside Municipality indicated that report is true. Accordingly, respondents have less opinion on the water system connection in Wau. 12(12%) respondents have strongly agreed Water services Systems is connected across Wau Municipality, 24(26%) agreed, 24(26.0%) undecided, 10(11%) disagreed and 23(25%) strongly disagreed

The result also shows that 44(48%) strongly agreed that the water systems are not functioning well in Wau Municipality. 15(16%) agreed and very limited number of 23(25%) strongly disagree with statement and 10(11%) strongly disagreed with statement. However, 26(28%) strongly agreed, 32(35%) agreed Water provided by Urban water corporation is less expensive and 10(11%) disagreed and 24(26%) strong disagreed. 24(26%) disagree with statement.

The Public opinion on Urban Water Corporation delivering water 4.4.3 services in Wau Municipality

Reference is made in table 4.6 above reveals that 14(15%) respondents agreed that there the public's are happy about water services in Wau Municipality 43(47%) strongly agreed, 10(11%) disagreed, and 25(27%) strongly disagreed. The report indicated the 43(47%) have strongly agree. 40(43%) that Urban strongly agreed water corporation does not provide enough water, 20((22%) agreed, and 10(11%) undecided and 22(24%) strongly disagreed on the statement that Urban water corporation does not provide enough water on the statement. The report suggested that respondents agreed and that it shows 20(22%) respondents have strongly agreed that the Urban Water services are very poor compare to Donkey water whereas 50(54%) agreed, 22(24%) undecideds. The report on the same objective suggested that 27(29%) strongly agreed, 49(53%) agreed Urban water is expensive and not available all time 16(17%) strongly disagree statement Urban water is expensive and not available all times. In the same report 10(10%) strongly agreed, 10(10%) agreed Water systems are functioning well across Wau Municipality, 30 (33%) respondents disagreed, and 42(46%) strongly disagreed. Water systems are functioning well across Wau Municipality.

From this analysis the research concluded that public opinion water provide by the

Urban water corporation is positive. However, major issues are revealing by research waters system is not connected across the Municipality.

The challenges facing Urban Water Corporation in delivering water services in Wau Municipality

The result of the study in the table 4.7 above reveals that 51(55%) respondents strongly agreed, 16(17%) agreed that Lack of funding to support the water supply in Wau Municipality, is the major cause of the limited water supply. 25(27%) strongly disagreed Lack of fund to support the water supply in Wau Municipality. The report in the same table shows that 42(46%) strongly agreed that lack of qualified staff to manage water system is one of the challenges that face urban water system in Wau Municipality. 15(16%) agreed that Lack of qualified staff to manage water system, and 35(38%) strongly disagreed that lack of qualified staff to manage water system. The report indicated that some few people have low opinion on the qualification of the staff. The researcher believed that qualification is an important asset in water system management

It was found out that there are no enough tools to installed water system in Wau Municipality. 30(33%) respondents have strongly agreed that no equipment's or tools to install water system in Wau Municipality, 30(33%) agreed, 10(10%) undecided 22(24%) strongly disagreed with the statement that no equipment or tools to install water system in Wau Municipality

The respondents have expressed that mismanagement of resources as well as corruption are majority challenges water system is facing in Wau Municipality. For example, 50(54%) strongly agreed that the Corruption and lack of accountability in the management of water and 32(35%) agreed. The water is not evenly distributed but focus in certain area in Wau. For example, statistic of 50(54%) strongly agreed that bias in distributing water and lack of maintenance. 42(46%) agree that there is

bias in distributing water and Lack of maintenance of the system.

Ways of addressing challenges facing South Sudan Urban Water Corporation in Wau Municipality

In addressing the challenges facing urban water corporation in Wau, the report in Table 4.8 above reveals that 67(73%) of the respondents strongly agreed that there is need to provided financial support to water system management, 25(27%) agreed to the statement. This will boost the system of water and reaching the other areas that are not saved by the corporation.

It is reflected in the finding that 62(67%) strongly agreed that employing qualified staff in the water system management is paramount. 30(33%) agreed to statement that Employing qualified staff in the water system management. Having qualified staff in the management is an integral part of the water system than having semi-skilled personal. Finding revealed that 40(43%) respondents have strongly agreed that Provide equipment and tools to installed water services system is ways to address challenges 50(54%) agreed, 2(1%) undecideds. Many of the respondent who participated in the study which reflect 50(54%) strongly agreed that the ensure accountability and transparency in water 42(46%) agreed with provision. statement. It reveals that accountability and transparency is very important in water supply. Bias was reflected as an issue, that water focus only in the areas of old Wau Municipality, for example, 30(33%) strongly agreed ensure no bias, distribution of waters, 29(32 %) agreed that ensure no bias, in distribution of water in Wau municipality. The water should be distributed equally without bias.

CONCLUSION

The impacts of Urban Water Corporation in delivering water services in Wau Municipality

It noted according to the study that urban water corporation has major impact on

water service delivery in Wau Municipality. However, the study shows that the impact is only seen in the main municipality Centre. Accordingly, Majority of the respondent from the field strongly agreed that there enough and safe water for drinking is provided in Wau Municipality.

On the other hand, Majority of citizens get water from Bore holes or local wells was seen as urban water service does not cover the whole municipality. The report also indicated that the water systems are not functioning well in Wau Municipality therefore; a lot of work is needed to replace pipeline and the system in in Wau municipality. Different opinion in the study argued that Water provided by Urban Water Corporation is expensive where as other said it less expensive.

The Public opinion on Urban Water Corporation delivering water services in Wau Municipality

The opinion of the Publics about water delivery in Wau municipality was rated at mixed reaction where respondent said they are happy about water services in Wau Municipality, other respondents disputed saying that water service delivery is very poor rating it as disagreement. The report indicated that urban water corporation does not provide enough water was rate less by majority where as other said it provided enough water in Wau Municipality.

The report shows that Urban Water services are very poor compare to Donkey water, this means that the come large quantity but very dirty. It was agreed according to the report that urban water is expensive and not available all times. Other hands the report reveal that Water systems are not functioning well across Wau Municipality. This included that water does not reach other location and therefore those areas are lacking clean and safe drinking water.

The challenges facing Urban Water Corporation in delivering water services in Wau Municipality

Looking at the challenges that facing urban water corporation in delivery water service in Wau Municipality, it was concluded that lack of fund to support the water supply in Wau Municipality was consider major concern by the study. The study finds out that the lack of qualified staff to manage water system in Wau Municipality has led to poor water services provision in Wau. Looking at major aspect of the technology, the researcher noted that unavailability of equipment and tools to install water system in Wau Municipality is greater challenges. The little or no at all tool that helps dig the channel for water and buried pipes was big problem. Poor management of the funds and the water has resulted into Corruption accountability lack of management of water system in Wau Municipality. The researcher noted according to the study that there is bias in distributing water and lack of maintenance of the system in Wau Municipality.

Ways of addressing challenges facing Urban Water Corporation in Wau Municipality

The study concluded that to address challenges facing that is need to provided financial support to water system management in Wau Municipality. The respondent expresses employing qualified staff in the water system management to ensure that technical support is provided immediately. The study shows that there is a need to provide equipment and tools to installed water services system across Wau Municipality.

This will ensure that continuity provision of water in every part of Municipality. The study shows that accountability and transparency consider a major setback in the water industry. It was agreed that there need to held the water management accountable for poor distribution of water across municipality. The study concluded that there should be no bias in water distribution as most water installation takes place some part of the Municipality and others are neglected.

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conflict of interest.

REFERENCES

- 1. Theories of Water Law Author(s): Samuel C. Wiel Source: Harvard Law Review, Apr., 1914, Vol. 27, No. 6 (Apr., 1914), pp. 530-544 Published by: The Harvard Law Review Association Stable URL: https://www.jstor.org/stable/1326782
- 2. Agrawal, C.C. Gibson Enchantment and disenchantment: the role of community in natural resource conservation World Dev., 27 (4) (1999), pp. 629-649, 10.1016/S0305-750X(98)00161-2
- 3. Development Through Bricolage: Rethinking Institutions for Natural Resource Management Earthscan, London (2012)Google Scholar
- 4. The meanings of sustainable development: household strategies for managing needs and resources Soc. Hum. Ecol. (1993), pp. 421-436 Google Scholar
- 5. K. Dake, M. Thompson Making ends meet, in the household and on the planet
- 6. GeoJournal, 47 (3) (1999), pp. 417-424, 10.1023/A:1007071924576 View Record in Scopus. Google Scholar
- D.C. Dennett The Intentional Stance MIT Press, Cambridge, MA (1987) Google Scholar

- 8. Community-based organizations (CBOs) and norms of participation in Tanzania: working against the grain
- Afr. Stud. Rev., 53 (2) (2010), pp. 23-48, 10.1353/arw.2010.0019CrossRefView Record in Scopus Google Scholar
- 10. M. Douglas Natural Symbols Routledge, Abingdon (1970) Google Scholar
- 11. M. Douglas. How Institutions Think Routledge and Kegan Paul, London (1987) Google Scholar
- 12. V. Rao, M. Walton (Eds.), Culture and Public Action: A Cross-Disciplinary Dialogue on Development Policy, Stanford University Press, Stanford, CA (2004), pp. 85-109 View Record in Scopus Google Scholar
- 13. M. Verweij, M. Thompson (Eds.), Clumsy Solutions for a Complex World: Governance, Politics and Plural Perceptions, Palgrave Macmillan, Basingstoke (2006), pp. 61-85
- 14. P.A. Harvey, R.A. Reed Rural Water Supply in Africa: Building Blocks for Handpump Sustainability

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