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4

5 **Abstract**

6

7 *Index terms—*

8 **1 I. INTRODUCTION**

9 Water is fundamental to sustenance of life and safe drinking water is so essential that is why it is recognized
10 as a basic human right (WHO, 2015). Worldwide 2.2 billion people do not have access to adequate supplies of
11 water and almost 4.2 billion people suffer from poor sanitation problems, and latest UN data estimated that by
12 2050 this could rise to almost 5 billion peoples living in areas of water scarcity. Millions of people, particularly
13 children, annually from contaminated water and about 95% of deadly diseases in are related to water consumption.
14 Therefore, water is essential to sustainable development, about 673 million people practice open defecation and
15 estimated 3 billion people have no access to basic hand washing facilities to practice personal hygiene (WHO,
16 2021).

17 Globally, 663 million people lack access to safe water although there is regional variation. The populations
18 without access to safe drinking water are mainly in Sub-Saharan Africa. Millions of people in rural communities
19 and poor urban centers throughout this region suffer from lack of clean, safe water (Water Project, 2015). In
20 2004, only 59% of the world population had access to any type of improved sanitation facility, 4 out of 10 people
21 worldwide have no access to improved sanitation. Therefore, they defecate in the open or use unsanitary facilities,
22 with a serious risk of exposure to sanitation-related diseases. The global statistics on sanitation hide the dire
23 situation in some developing regions. With an average coverage in developing regions of 50%, only one out of
24 two people has access to some sort of improved sanitation facility.

25 It was agrees that sensitization and awareness campaign should be organize to educates the stakeholders and
26 their subjects on adequate strategies to adopt to avert severe water scarcity. Currently, individual solutions
27 are adopted at the household level e.g. pit latrines, septic tanks and storage. There is very little sewerage in
28 urban Nigeria. Regarding solid waste, while there is some level of public and private solid waste collection, the
29 frequency of collection is poor. The storm water drainage system is frequently a disposal point for solid waste.
30 Moreover, disposal, when waste is collected, is by dumping rather than sanitary landfill and is a major cause
31 of water pollution either through the storm water drainage system or through seepage into the groundwater.
32 Wastewater disposal pollutes the surface water. Being in an embryonic stage, the sanitation sub-sector requires
33 better-formulated policies and a massive injection of wellformulated investments, designed specifically for African
34 conditions, combined with institutional reforms. The Bank has been the only donor in the sub-sector with three
35 projects to address this situation, but these efforts need to be multiplied significantly.

36 **2 III. STATUS OF SANITATION FACILITIES**

37 The 1997 survey also indicated that about 15% of the population did not have access to safe excreta disposal
38 facilities and that about 75 % use pit latrines. The situation throughout the country is thought to be worse
39 than this, with many facilities not operational or not well maintained. About 60 % of the people were shown to
40 discharge their wastewater directly to the environment with no consideration of aesthetic or health consequences.
41 Although water quantities are comparatively low since water is mostly hand-carried, drainage in many areas is
42 poor, and good breeding conditions for mosquitoes are created. Most residents have no organized way of dealing
43 with their solid waste. Water Supply and Sanitation Challenges in Small Towns and Rural Areas In rural areas,
44 8 out of 10 people still lack access to improved drinking water sources, with the majority living in Sub-Saharan
45 Africa (319 million) and South Asia (134 million). With only 51 percent of the rural world's population using
46 improved sanitation facilities, rural areas lag far behind urban areas, where the access rate is 82 percent. Seven

7 VII. CONCLUSION

47 out of 10 people live without improved sanitation facilities, and The research utilized both primary and secondary
48 data. Primary data was sourced using questionnaire and field observation (Olajuyigbe, 2012),while the secondary
49 data were derived from documentary sources such as journal articles, dissertation, and technical reports. One
50 hundred (100) questionnaires were use in data collection. The questionnaires were distributed using multi stage
51 sampling. The study area were group according to strata, therefore, political wards was considered as strata in
52 the research. Then, systematic sampling was used where by the researcher select the first house randomly in each
53 stratum and count the ten houses subsequently to administered the research instrument. The process continues
54 until all the questionnaires were exhausted.

55 3 V. RESULTS AND DISCUSSION

56 4 Distance to Water Sources

57 Figure 3 shows that more than two-third of the respondents (80%) have availability of water. This indicates that
58 there is water availability in Hadejia area. Figure7 displays that most of the respondents have toilet (92%). This
59 indicates that water for purification and flushing (in some modern toilets) is needed. Most of the respondent
60 share toilet facilities their family members (55%); with 45% of respondents do not share toilet facilities with their
61 household (figure 9).

62 5 Types of toilet available

63 Figure 10 indicates that 83% of the respondents have 1 to 3 toilet facility in their houses; 10% of the respondents
64 have 4 to 6 toilet facility. Those have 7 and above takes 7%. This showcases typical traditional Hausa land where
65 they have homestead with more than 50 persons per house. Therefore, they need more toilets.

66 6 Method of Wastewater Discharging

67 Source: Field Survey, 2022 The main method used by the respondents in managing waste water is disposal via
68 gutter which has 90% then disposal on ground which took 10% (Figure 11). This is in accord with finding of
69 Mansur (2015) Based on the result of this research, it is indicated that 67%, 21% and 12% of the respondents
70 believe that the sanitation and water supply is good, average and poor status (Figure 12). Personal hygiene took
71 the highest score (83%), followed by environmental sanitation (10%). To other respondents, improving toilet
72 facilities will improve sanitation in the study area (Figure 13). This negates the finding of Ali et al. (2018)
73 proposes improve toilet facility as the major control measure, followed by cleaning environment and adequate
74 sanitary measures.

75 7 VII. CONCLUSION

76 Water at sufficient quality and quantity is indispensable for qualitative health. Water supply in the study area is
77 recommendable because 79% of the respondents sources water from tap water system that is clean and hygienic,
78 and they cover minimal distances to the sources. Majority of the respondents are having average income earners
79 and their income is above poverty line of US\$1.90 (conversion level \$1 = #360, i.e. $1.90 * \#420 = \#798$) per
80 day. These translate to good sanitation, as all the respondents have toilet in their respective household. The
81 overall score of environmental sanitation in the study area according to the research base on respondent's views
is good.

¹



Figure 1: (

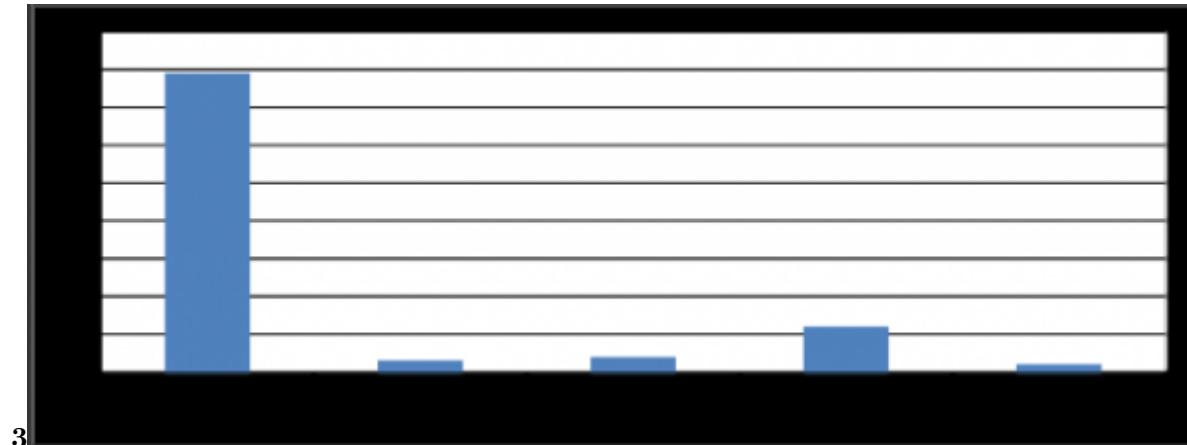


Figure 3: Figure 3 :



Figure 4:

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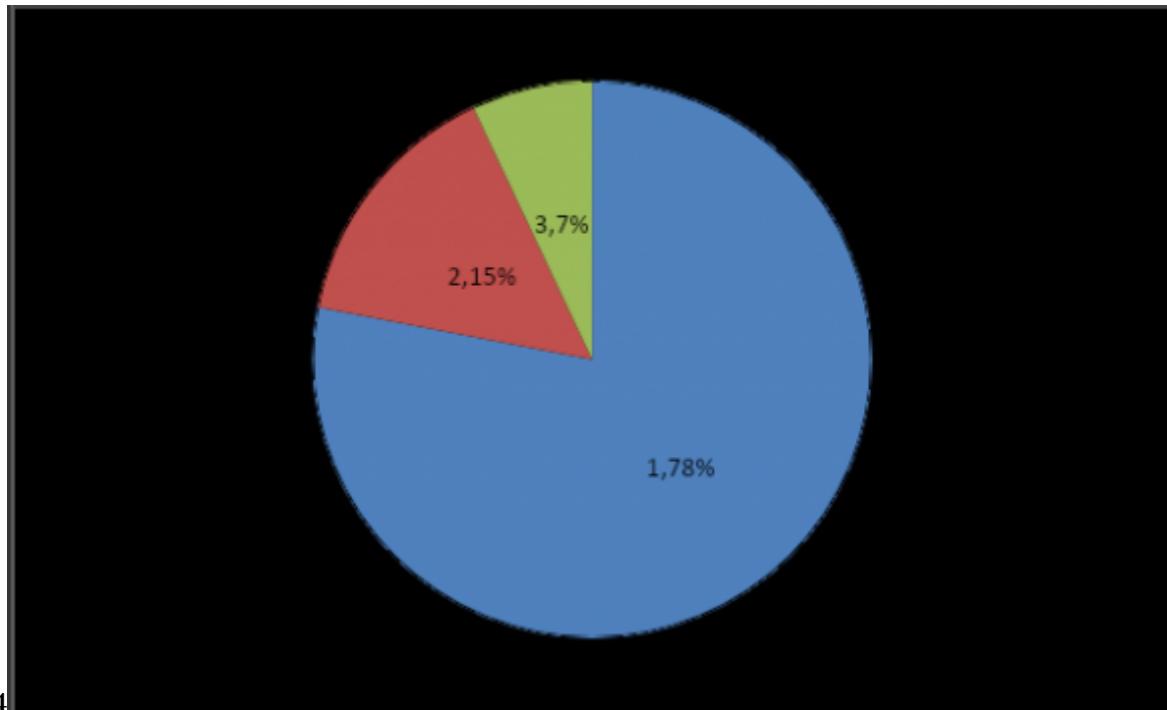


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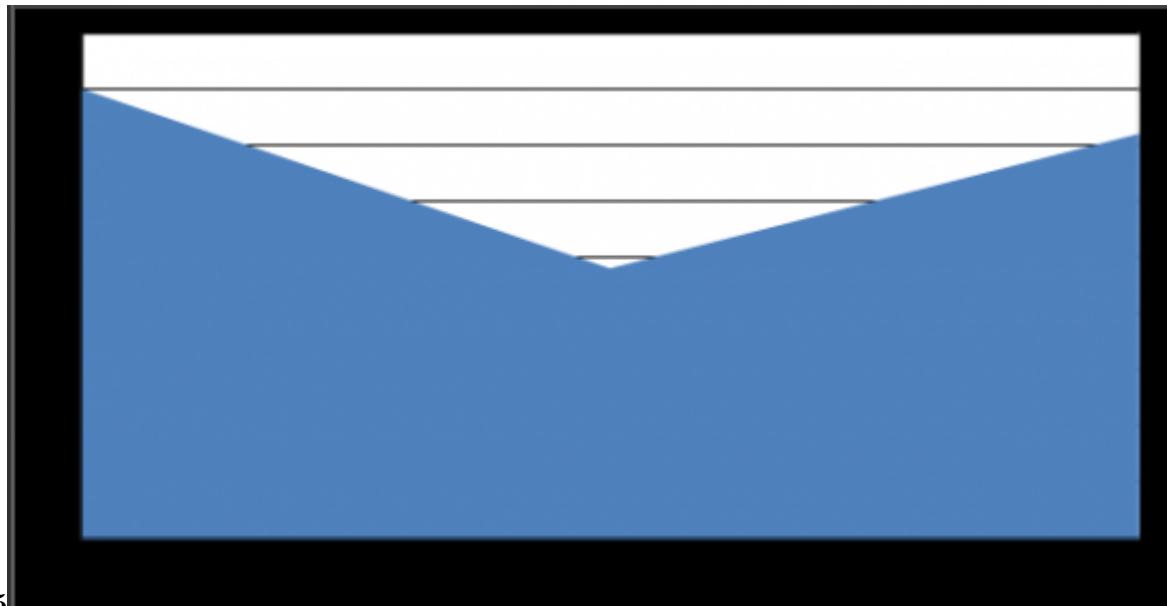


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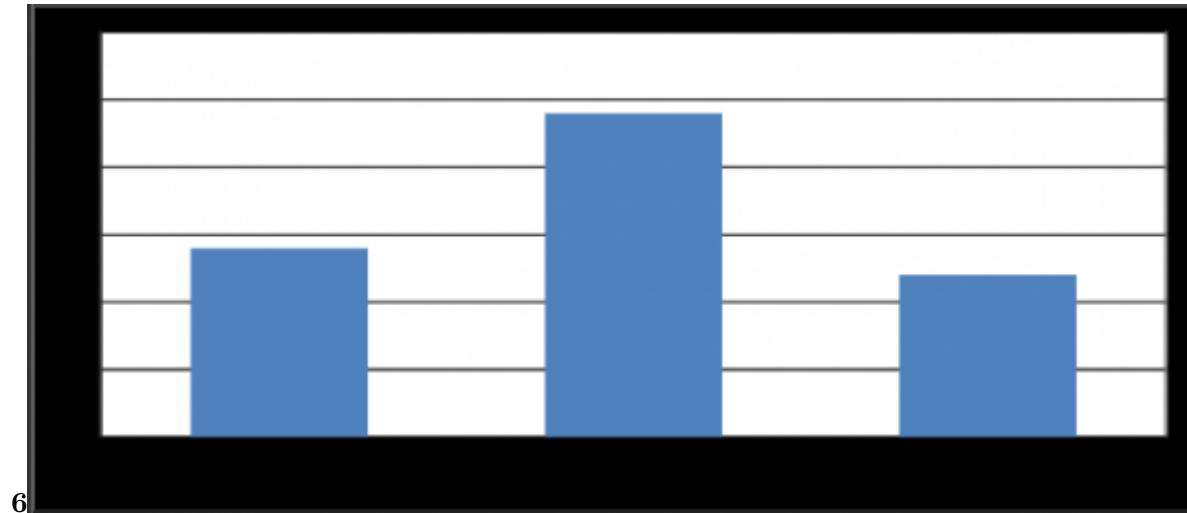


Figure 7: Figure 6 :

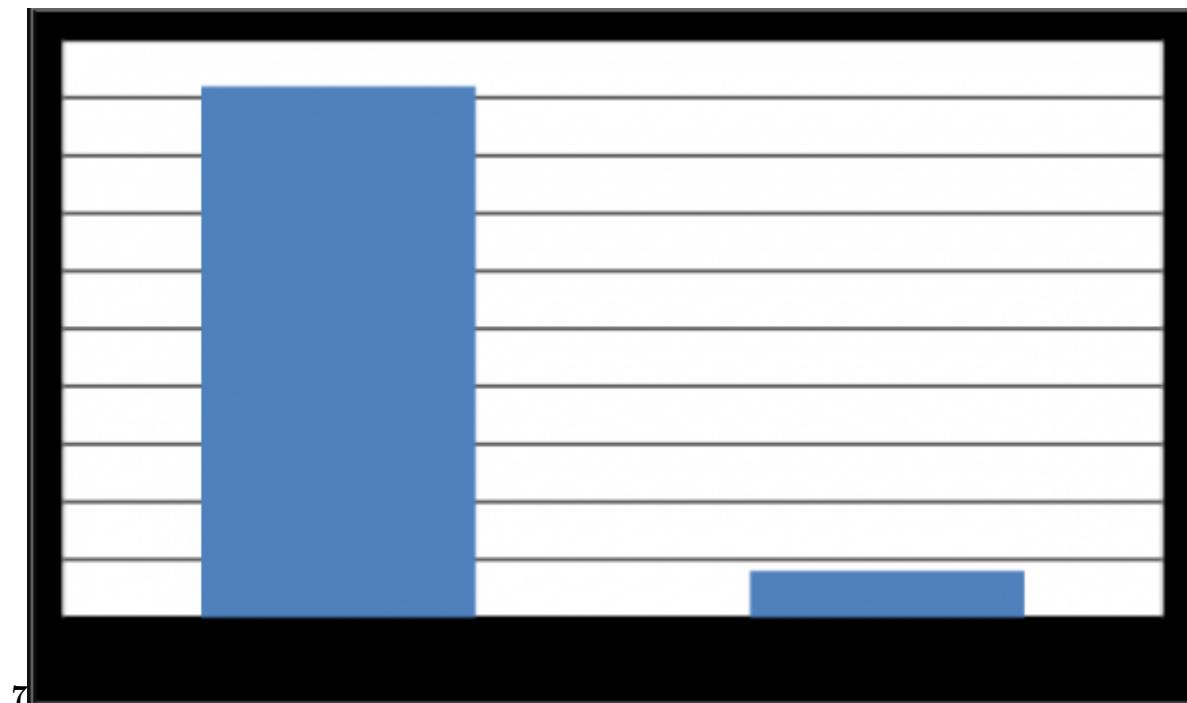


Figure 8: Figure 7 :

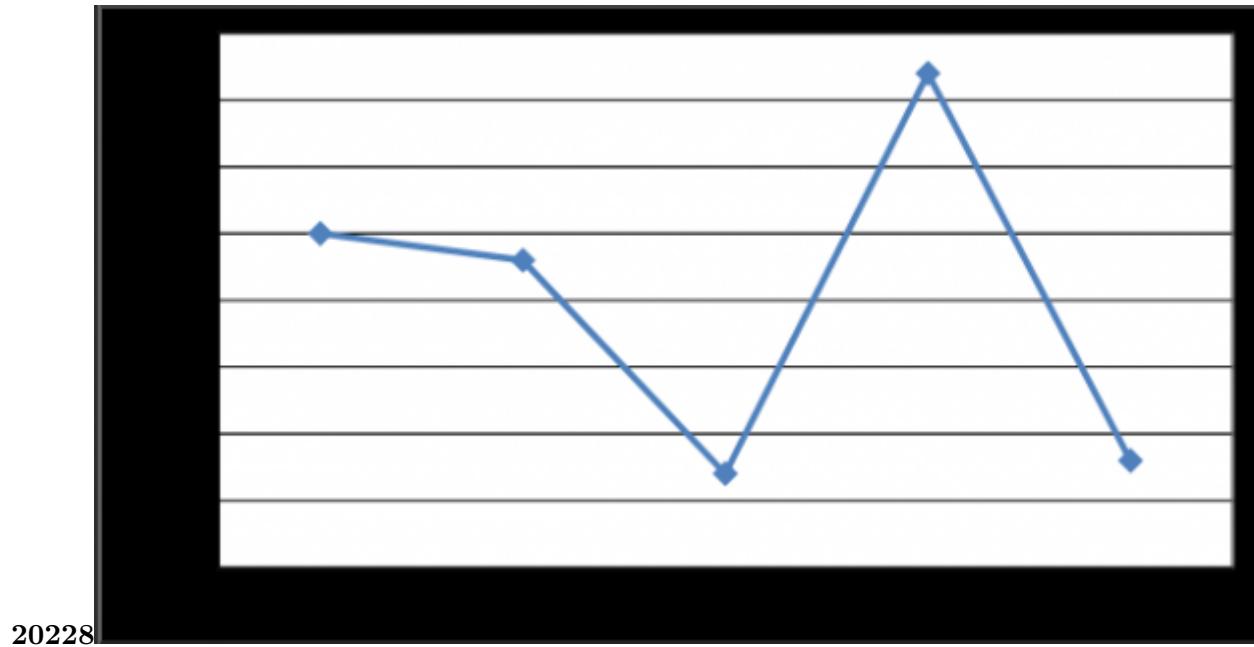


Figure 9: Source: Field Survey, 2022 Figure 8 :

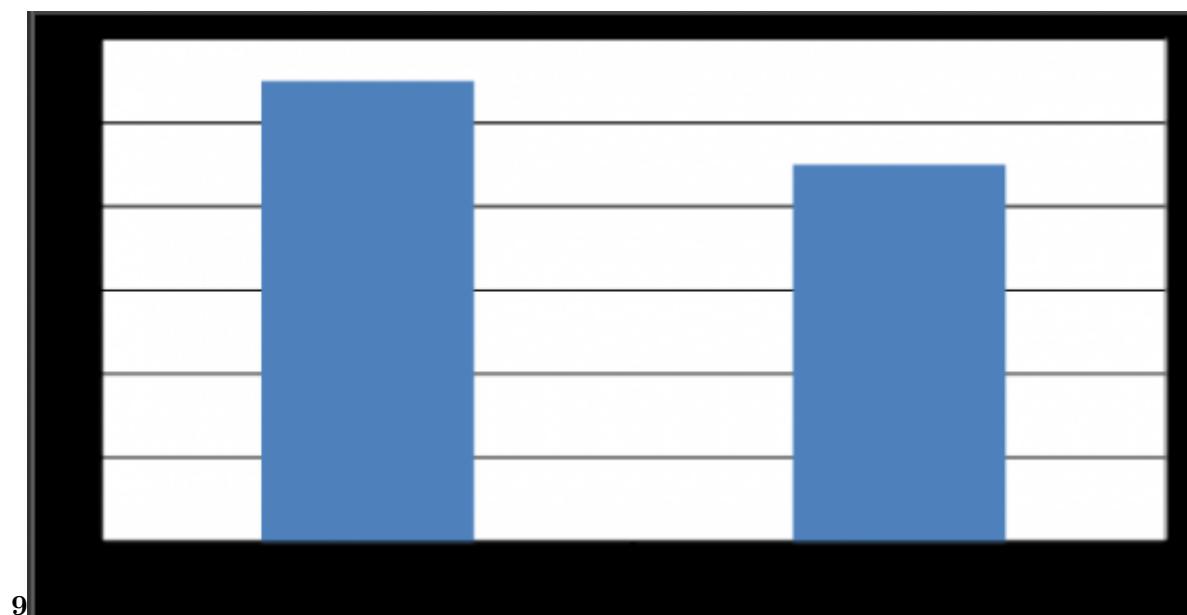


Figure 10: Figure 9 :

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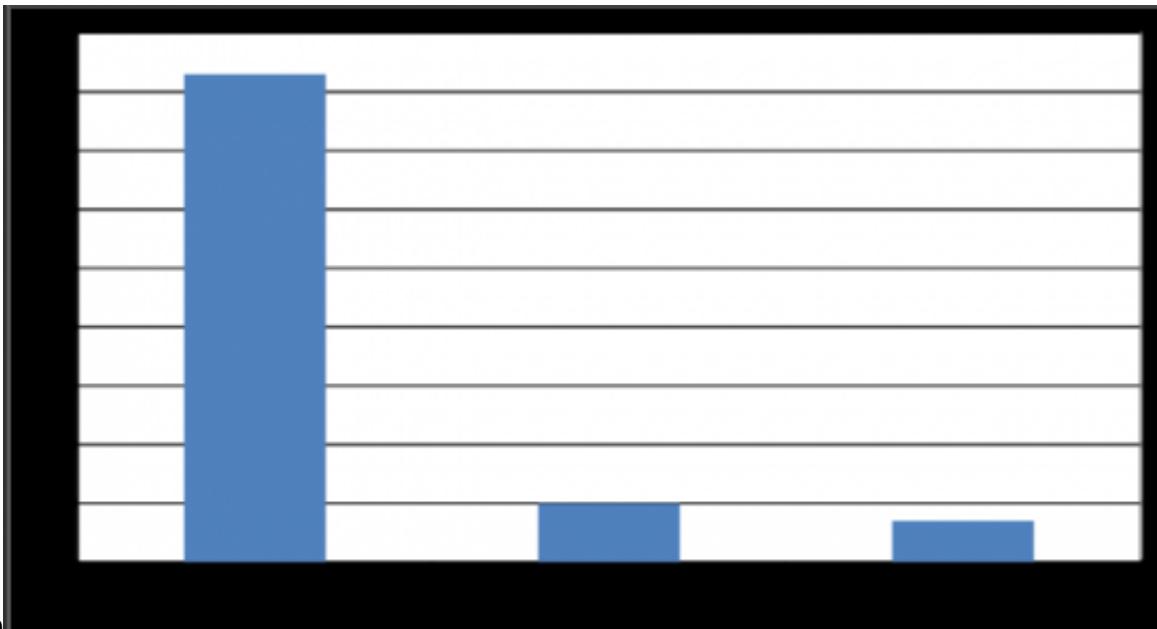


Figure 11: Figure 10 :

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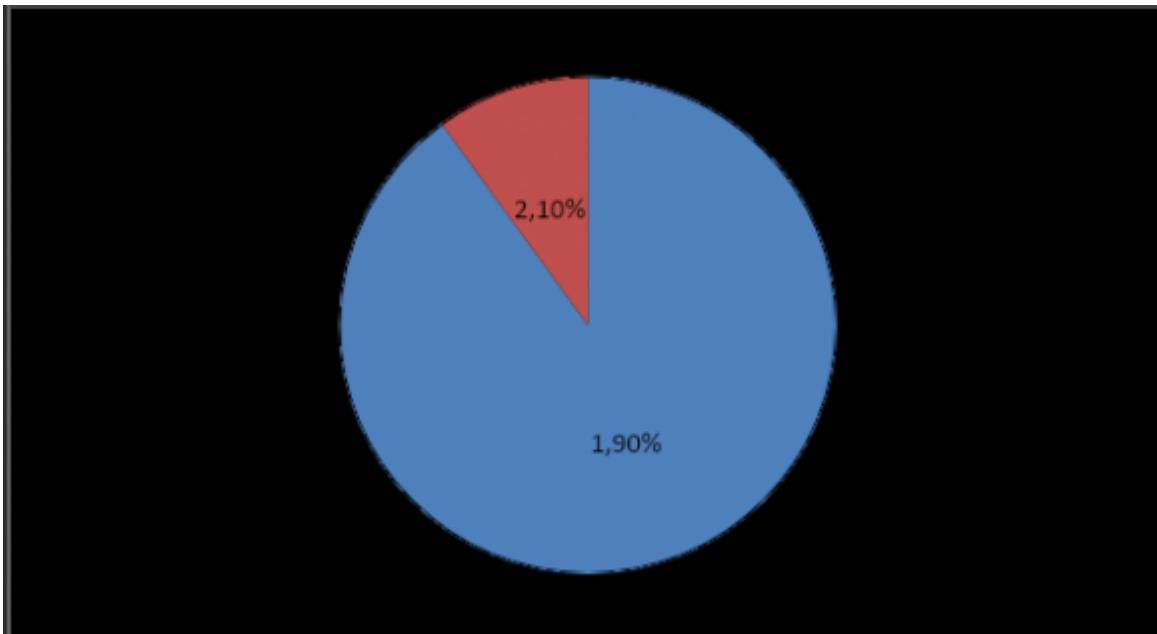


Figure 12: Figure 11 :

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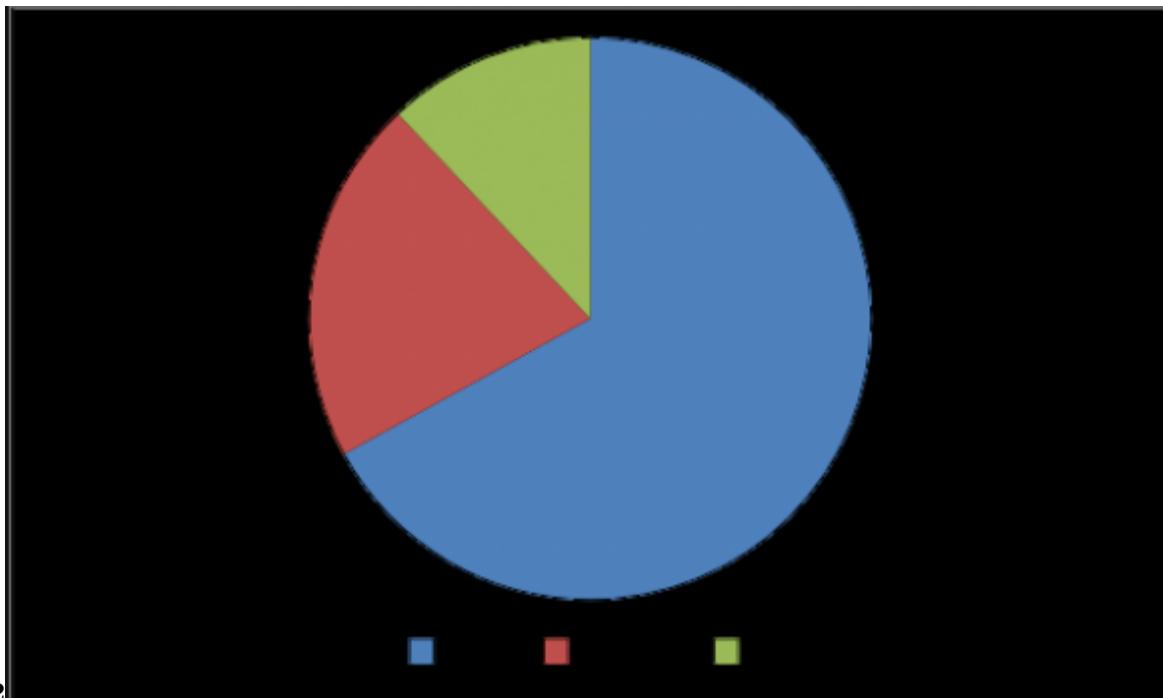


Figure 13: Figure 12 :

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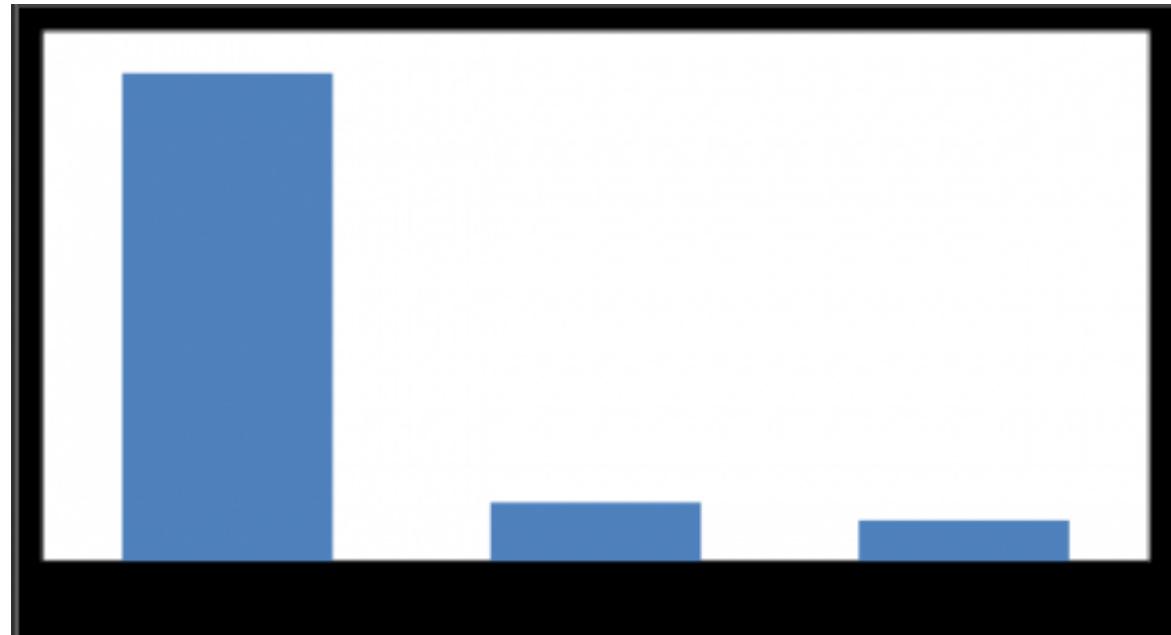


Figure 14:

study area.

- ? To identify the sanitation facilities available in the study area
- ? To examine the relationship between socio-economic status and sanitation

IV. METHODS

4.1 Description of the Study Area

Hadejia town is located in eastern part of Jigawa state between latitude 12.4506 0 N and longitude 10.0404 0 E.

Figure 15:

1

Questions	Gender	Total	Variable	Male	Female	100	Number of respondent	London Journal of Research in Humanities and Social Sciences
Age			0-20	21-40	41 to above		86 14 21 54	
						25		
Total						100		
Marital Status			Married			45		
			Single			54		
			Widow			1		
			Divorced			0		
Total						100		
Occupation			Civil servant			29		
© 2023 London Journals							79	
Press								

Status of Water Supply and Sanitation in Hadejia Local Government, Jigawa State, Nigeria Volume 23 | Issue 6 | Compilation 1.0 Based on the income received by people in Hadejia, it is indicated that they are medium income earner. Their monthly income received fall over poverty level set by World Bank (2020) which says those living under US\$1.90 London Journal of Research in Humanities and Social Sciences

Figure 16: Table 1 :

83 [London Journal of Research in Humanities and Social Sciences] , *London Journal of Research in Humanities*
84 and Social Sciences

85 [London Journal of Research in Humanities and Social Sciences] , *London Journal of Research in Humanities*
86 and Social Sciences

87 [The United Nations World Report ()] , *The United Nations World Report* 2006. Paris: UNESCO. 2. (Water:
88 A Shared Responsibility)

89 [Water Project ()] , *Water Project* 2015. 10th.

90 [?ncekara and Abubakar ()] *A Comparative Analysis of Students' Attitude towards the Environment. Case*
91 *Studies from Turkey and Nigeria*, S ?ncekara , A S Abubakar . 2014. Deutschland: Lambert Academic
92 Publishing.

93 [Amori ()] A A Amori . *Water Resources Mapping in Nigeria: fundamental Issues, Benefits and Constraints*,
94 2009. 18 p. 25.

95 [Mansur ()] 'An analysis of solid waste Generation in Dutse Sahelian Zone of Jigawa State'. A Mansur .
96 IJCAS/2015/8-21/81-85. *Nigeria. International journal of Agriculture and Crop sciences* 2015.

97 [Gambo et al. ()] 'Assessing the impacts of improper medical waste disposal and residents perception of their
98 disposal practices in Hadejia Metropolis, Jigawa state, nigeria'. J Gambo , A Garba , Z Hadiza , M I Ahmad
99 , S B Bashir , A Y Yusuf . *Nigerian Research Journal of Chemical Sciences* 2018. 2018. p. 4.

100 [Abdulkadir et al. ()] 'Assessment of Water supply Shortages in Zango, Rimin Kebe Area, Ungogo Local
101 Government'. B Abdulkadir , I B Nura , I W Tajudden , K A Ibrahim . *DUJOPAS* 2019. 2019. Kano
102 State. 5 (2a) p. .

103 [Angoua et al. ()] 'Barriers to access of improved water and sanitation in poor peri-urban settlements of Abidjan'.
104 E L Angoua , K Dongo , M R Templeton , J Zinsstag , B Bonfoh . *PloS one* 2018. Côte d'Ivoire. 13 (8) p.
105 202928.

106 [Bello ()] 'Environmental problems as a threat to sustainable urban development in kano metropolitan-a review'.
107 N I Bello . *Current Studies in Social Sciences* 2021, A Csiszárík-Kocsir , & P Rosenberger (eds.) 2021. ISRES
108 Publishing. p. .

109 [Mahama et al. ()] 'Factors influnecinh householders access to improved water in low-income urban areas of
110 Accra, Ghana'. A M Mahama , K A Anaman , I Osei-Akoto . *Journal of Water and Health* 2014. 12 (2) p. .

111 [Bello et al. ()] 'Overview of domestic water supply in Kano state'. N I Bello , M Z Imam , H Adamu , A S
112 Abubakar . *Nigeria. International Journal of Geography and Geography Education (IGGE)* 2021. 44 p. .

113 [Mpyet et al. ()] 'Prevalence of Trachoma in Four Local Government Areas of Jigawa State'. C Mpyet , N
114 Muhammad , M D Adamu , M M Umar , A Tafida , C Ogoshi , A Maidaara , S Isiyaku , A William , R
115 Willis , A Bakhtiari , N Olobio , A W Solomon . 10.1080/09286586.2018.1467468. *Ophthalmic Epidemiology*
116 2018. Nigeria. (S1) p. .

117 [Auwal et al. ()] 'Spatial Distribution and Locational Implication of Public Conveniences in Kano Metropolis'.
118 H I Auwal , S A Ahmad , N I Bello , H Ali . 10.33003/fjs-2020-0403-400. <https://doi.org/10.33003/fjs-2020-0403-400> *FUDMA Journal of Sciences (FJS)* 2020. 4 (3) p. .

119 [Stoveland and Bassey (2000)] 'Status of water supply and sanination in 37 small towns in Nigeria'. S Stoveland
120 , B U Bassey . *Donor Conference in Abuja*, 2000. 2-4 February, 2000.

121 [Kazaure ()] 'Survey on SWM for Sustainable Development and Public Health in Dutse Metropolis'. M B Kazaure
122 . *Procedia Environmental Sciences* 2016. 2016. Jigawa State, Nigeria. 35 p. .

123 [Blakely et al. ()] 'The global distribution of risk factors by poverty level'. T S Blakely , C Hales , N W Kieft ,
124 A Woodward . *Bulletin of the World Health Organization* 2005. 83 (2) p. .

125 [Jallo et al. ()] 'Waste Management Practices and its Environmental Implications in Hadejia Metropolis, Jigawa
126 State Nigeria'. I U Jallo , M A Kodiya , M A Modu . *DUJOPAS* 2021. 2021. 7 (2b) p. .

127 [Nura et al. ()] 'Water consumption determinants in Rimin Kebe area, Ungogo Local Government'. I B Nura , B
128 Abdulkadir , S A Ahmad , K A Ibrahim . *International Journal of Research and Innovation in Social Science*
129 (IJRISS) 2020. Kano State, Nigeria. 4 (7) . (July 2020|ISSN 2454-6186. www.rsisinter national.org Page 652)

130 [Water sanitation hygiene, water supply and sanitation monitoring and evidence, key fact from JMP ()]
131 *Water sanitation hygiene, water supply and sanitation monitoring and evidence, key fact from JMP*,
132 https://www.who.int/water_sanitation_health/monitoring/jmp-2015-keyfacts/en/ 2015.
133 2015. World Health Organization.

134 [Ali et al. ()] 'Water Supply and Sanitation Challenges in Dala Local Government Area of Kano State'. A F Ali
135 , H Abdullahi , A I Tanko , SK . *DUJOPAS* 2018. 2018. Nigeria. 4 (2) p. .

136 [Olajuyigbe et al. ()] 'Water vending in Nigeria-A case study of Festac Town'. A E Olajuyigbe , O O Rotowa , I
137 J Adewumi . *Mediterranean Journal of social Science* 2012. Lagos, Nigeria. 3 (1) .

138

7 VII. CONCLUSION

139 [Nura et al. ()] 'Water vendors participation in domestic water supply in Unguwa Uku, Tarauni Local Gov-
140 ernment' I B Nura , A Shehu , S A Abubakar , A Bello , M Z Imam . 10.33003/fjs-2020-0404-509.
141 <https://doi.org/10.33003/fjs-2020-0404-509> *Fudma Journal of Science* 2021. Kano State, Nigeria.
142 4 (4) p. .

143 [Sanusi ()] *Water, Sanitation and Human Development in Urban Fringe Settlement in Nigeria. Theoretical and*
144 *Empirical Researches in urban management*, Y A Sanusi . 2010. 8 p. .

145 [November ()] 'Water, Sanitation and Hygiene strategy 2018-2025'. November . WHO/CED/PHE/WSH/ 18.03).
146 Licence: CC BY-NC-SA 3.0 IGO. <http://www.thewaterproject.org/why> *London Journal of Research*
147 *in Humanities and Social Sciences* 2015. 2018. 2018. Geneva: World Health Organization. 24.

148 [Olofin ()] *Wudil Within Kano Region: a Geographical sysnthesi*, E A Olofin . 2016. Adamu Joji Publishers Kano.
149 p. . Department of Geography, Kano University of Science and Technology (Wudil, 2 nd edition)