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ASSESSING IMPROVED TOILET FACILITIES IN MOLEGE, OWO LOCAL GOVERNMENT AREA, NIGERIA

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Abstract
This work assessed toilet facilities in Molege, Owo Local Government Area, Nigeria, with a view to providing information that could enhance policy response in the provision and usage of improved toilet facilities in the area. Different places where most people usually defecated in Molege were identified. The existing toilet facilities in the study area were also identified. The socio-economic characteristics of the people in the study area were also investigated. Systematic random sampling technique was adopted in the administration of questionnaire on the 105 respondents (25 % of the 421 households) in Molege. Photo camera was used for on-the-spot assessment of toilet facilities in the area. The findings revealed high number of households who did not have improved toilet facilities at home. The study recommended that Ondo State Government should engage in partnership with the Federal Government and NGOs like WHO/UNICEF and the United Nations to help provide improved toilet facilities for the people in the study area.
Keywords: Defecate, Dung hills, Residents, Toilet, Sustainable

1.0 Introduction

Toilet is a private place where human beings usually defecate. However, history has it that toilet was originally a Frenchloanword (first attested in 1540) that referred to the *toilette*("little cloth"). In some developing countries, some people use bush, while some use pit latrine with slab and pit latrine without slab as toilet. The developed countries invented different forms of toilets like; flush toilet, squat toilet et cetera. These toilet facilities are connected to a sewer system. Because of the hygienic nature of flush toilets, the World Health Organization (WHO) refers to it as improved toilet facilities.

2.0. Literature Review

2.1. Concept of Toilet Facilities

Urban and Regional Planning is a profession that deals with the allocation of land for different uses in order to create aesthetically pleasing environment and compatibility in terms of land-uses. Odogiyon (2015) stated that a clean environment is paramount to a healthy living condition for man. He stated further that, 'we cannot continue to wait for the outbreak of epidemic diseases in our communities before we take vigorous steps as urban and regional planners'.

Interestingly, no city in Nigeria is ranked among the 10 cleanest cities in Africa, but we have cities like; Kigali in Rwanda, Cape Town in South Africa, Tunis in Tunisia, Port Louis in Mauritius, Johannesburg in South Africa, Victoria in Seychelles, Casablanca in Morocco, Nairobi in Kenya, Windhoek in Namibia and Gaborone in Botswana, (Joshua, 2023). This is a big challenge to all town planners in Nigeria.Furthermore, this study believes that any community where improved toilet facilities are lacking cannot enjoy aesthetically pleasing environment and such community is prone to outbreaks of epidemic diseases.

Lack of toilet facilities is a threat to the environmental health of cities and rural communities. In order to be ranked among the foremost urban and regional planners in Africa, provision of improved toilet facilities in Nigeria must be the utmost concern of sanitation planners in the urban and regional planning profession.

Molege is the host of the largest regional market in Owo Local Government. But, it is disheartening to know that there are only few improved toilet facilities in some private residential buildings in the village. The traders who come from far and near and the farmers who reside in the village always visit the bush or dung hills whenever there is the need for them to defecate.Based on the fore-going, a research work of this nature on assessing toilet facilities in Molege, Owo Local Government Area of

Ondo State, Nigeria, is inevitable at this time. Hence, the study assessed toilet facilities in Molege, with a view to providing information that could enhance policy response in the provision, maintenance, and usage of improved toilet facilities in the area. It identifies, the usual places most people used to defecate, and also identified the existing toilet facilities in the study area. It went further to examine the socio-economic characteristics of the people in the area, and determined the interest of the people in using improved toilet facilities. Representatives of all the residential buildings in Molege were examined through the administration of questionnaire and photo camera for on-the-spot assessments of toilet facilities in the area.

2.1 Empirical Review

Famakinwa, Odogiyan and Anjorin (2017), conducted a research on the sanitary condition of slum in the core area of Ikare Akoko, Akoko North East Local Government Area of Ondo State, Nigeria. They informed that data were collected through questionnaire administration, focus group discussion and direct observation (photo camera was used for on-the-spot assessment). Some of the issues considered are: types of toilet, main source of water, method of domestic waste disposal, among others. 175 questionnaires were returned out of the 193 that were administered using multi-stage sampling technique. They revealed that majority of the respondents defecated in pit latrines and many others who did not have any toilet facility at their residents defecated in the bush or dung hills. They recommended, among others, that Ondo State Government should explore partnership with International Development Agencies to improve sanitary conditions in the study area, in order to enhance sustainable living condition of the residents.

In the same vein,Osumaru, Akwasi and Ategeeng (2019) worked on “Determinants of open defecation in the Wa Municipality of Ghana”. They observed that 94% of the respondents affirmed that, they had several unmet household needs with limited income, and that constructing a toilet facility did not seem to be a priority for them. The researchers recommended that new and innovative approaches of public education would need to be considered. They informed further that religious and traditional bodies within the Municipality might be effective vehicles for channelling such messages. Also, the principle of credit financing may be considered in assisting households to construct home toilets and implementation of municipal environmental sanitation and health bye-laws as well as abolishing negative traditional attitudinal prejudices were also canvassed.

WHO/UNICEF (2010) conducted a research on Biluey rural Indonesia; they also worked on Java and Sumatera to address this issue of spatial inadequacy of improved sanitation facilities in rural communities. They discovered that about 60% of the inhabitants had no definite place to defecate and that they also bathed in the open; while the men used any corner and the women made use of cloth to cover any available space.

Mangier (2010) examined the sanitation facilities in West Bangal, a village in Kolkata, India, where he discovered that no one had access to toilet facilities, and that most of the female villagers headed to a particular field where another woman helped to shield them from lecherous men.

3.0. Residents’ Interest to use improved Toilet Facilities in the Study Area

Rogers (2003), as cited by Ukam (2017), discusssed “Diffusion of Innovation Theory” in 1962. He affirmed that this theory is concerned with how an innovation-new idea, practice, or object which is new to an individual or members of the society - is being disseminated through certain communication channels to achieve the desired change over time among members of a social system.

Factors responsible for open defecation have just been reviewed. Hence, it is pertinent for this work to look into the interest of the people in using improved toilet facilities in the study area, if provided. According to Ukam (2017), the Diffusion of Innovation Theory proposes a mechanism for the adoption of an innovation through the following five stages.

Knowledge: Here, an individual or members of the society are exposed to a new innovation (like good toilet) but they may refuse to use it or adopt the innovation due to inadequate information or knowledge about the innovation.

Persuasion: At this stage, the media and other interpersonal communication strategies have come in to make an individual to begin show

more interest in the new innovation with the quest to get details or information about the innovation.

Decision: At a stage, adequate communication is needed to help an individual evaluate the positive and negative aspect of the innovation so as to decide whether to accept / reject the innovation.

Implementation: Here, communication helps an individual to identify the gains of the innovation with more information about the usefulness of the innovation and what the future could be with the new innovation.

Confirmation: This is the final stage of the process where an individual or members of the community finalized their decision to adopt the innovation and continue to use the innovation with its full potential.

Although, efforts of these great scholars could not be waved aside, it could be deduced that most of their studies and discoveries revolved around toilet facilities in rural areas of developing countries; some were based on poverty and religious norms. Little attention has been given to a rural community which hosted the biggest regional market in the whole local government. However, this study sought to bridge this research gap by undergoing empirical study on the assessment of toilet facilities in Molege, Owo Local Government Area, Ondo State, Nigeria.

4.0 Methodology

4.1. The Study Area

Molege is a small village in Owo Local Government Area of Ondo State, Nigeria (Figs. 1, 2 and 3). It is located between latitude 7º18| and 5º 28| North of the equator and longitude 5º 28| East of the Greenwich meridian, and on a plain with elevation of 1095 feet and high altitude of 5025 feet (Google earth imagery, 2020). It is bounded at the North by Ujan, at the South East by Okitiofa, at the South by Ijegunma, at the South West by Aratokun, at the North West by Igbe and Ipele junction. It had an estimated population of 3,767 people (NPC, 1991).

The inhabitants of Molege are mainly of Yoruba, and Ebira descent. The major occupation of the people are farming and trading. Molege is the host of the largest regional market in Owo Local Government Area of Ondo State, Nigeria. The major source of water supply is a seasonal stream called Omi-fun.It is also on record that there are nine Community Based Organizations (CBO) in Molege, which include: Egbe Ode (Association of Hunters), EgbeAgbe (Farmers' Association), EgbeOnigari (Garri Trader's Association), EgbeElero (Grinders' Association), EgbeAlata (Pepper and Tomatoes seller Association), Hair dressers' Association, Fashion Designers' Association, Barbers' Association and Mogbo-mogbo (Middle Women Association).

The major potentials of the community among others are: large expanse of land for farming; major agricultural produce are: cassava, yam, pepper, and plantain. The research found that the biggest challenges faced by the community were lack of electricity, lack of toilet facilities and poor road infrastructure to their farm lands.

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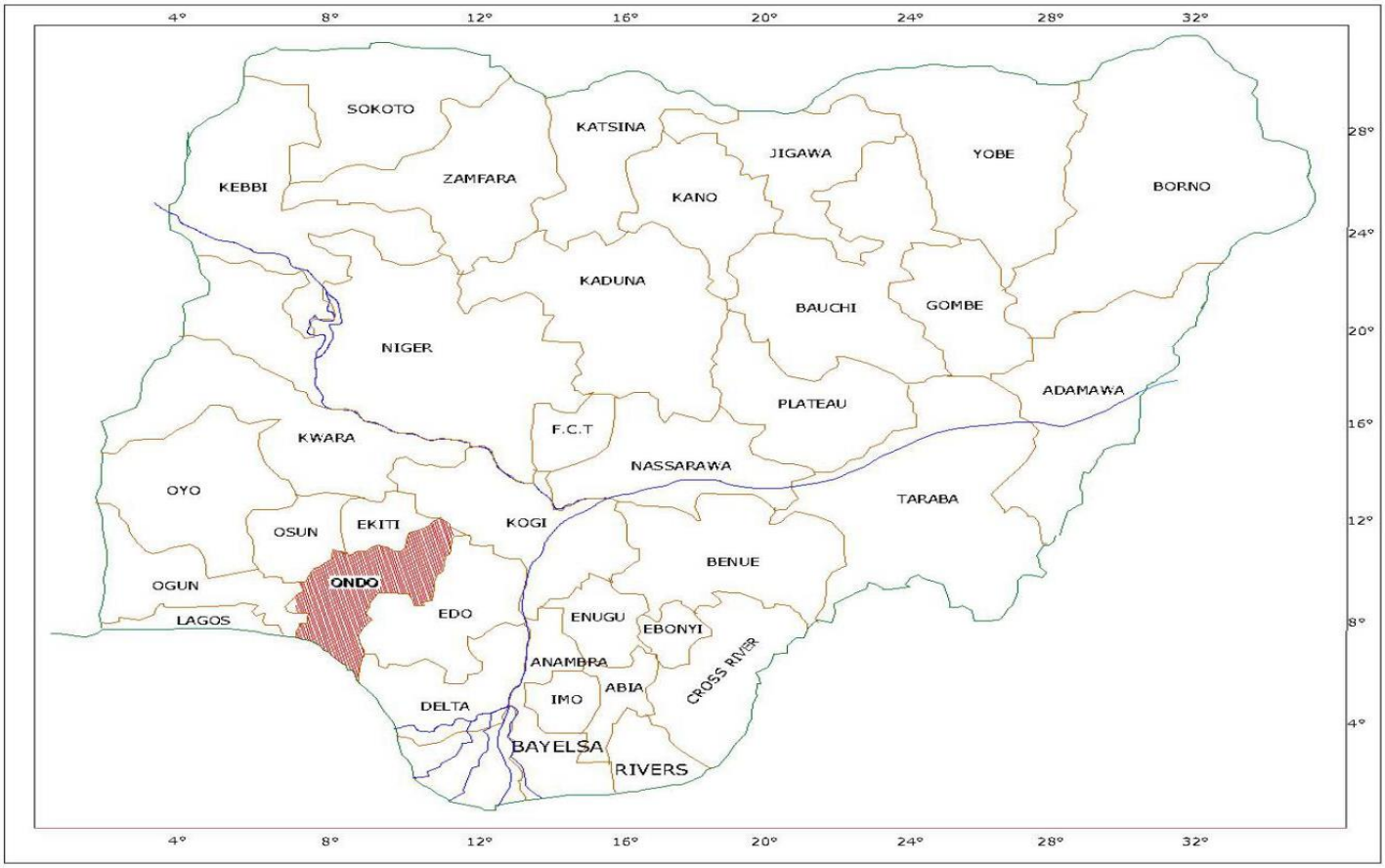

FIG. 1 MAP OF NIGERIA IN ITS STATES SETTING
SOURCE: MINISTRY OF PHYSICAL PLANNING AND URBAN DEVELOPMENT, AKURE

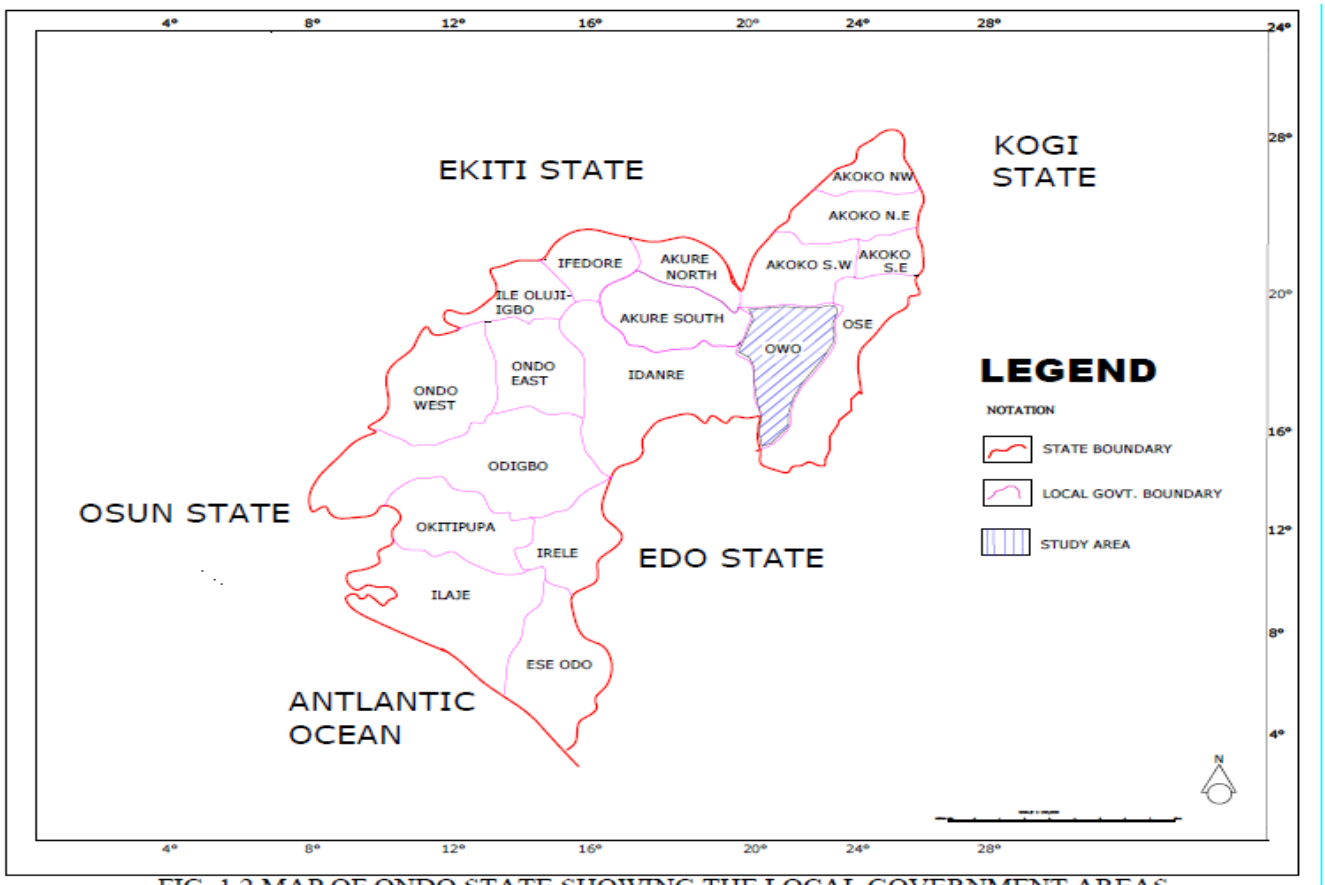

FIG. 1.2 MAP OF ONDO STATE SHOWING THE LOCAL GOVERNMENT AREAS
SOURCE: MINISTRY OF PHYSICAL PLANNING AND URBAN DEVELOPMENT, AKURE

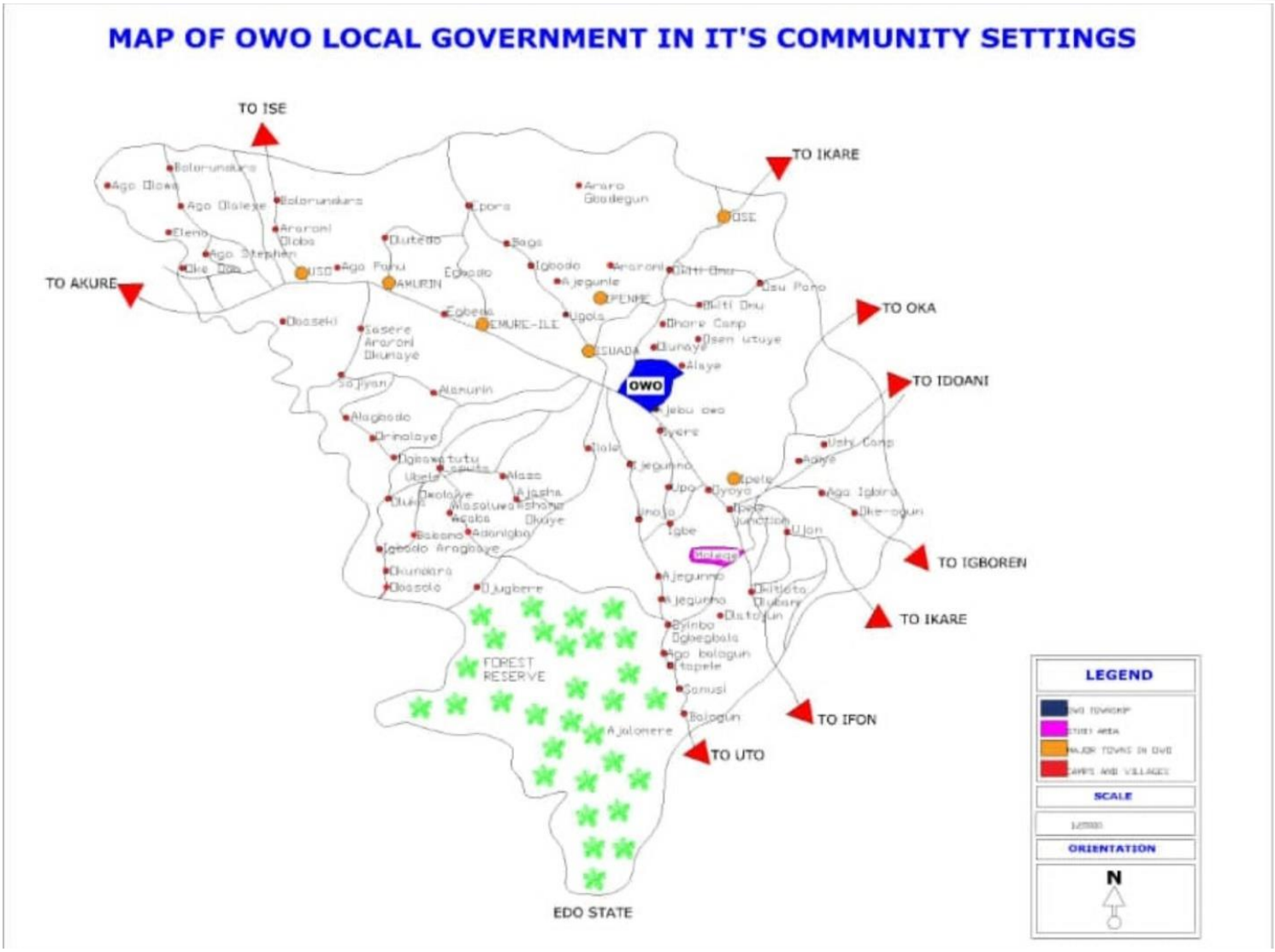

Fig. 3: Map of Owo local Government, in its Community settings.
Source: Ministry of Housing and Urban Development Ondo State (2017)

4.2. Materials and Methods

The data used for this study were collected essentially through field survey, with the aid of structured questionnaire, interviews, observation and photos. Others include published and unpublished materials such as textbooks, academic journals, reports, articles, and conference and seminar papers. Internet facilities such as the websites of World Health Organisation (WHO), United Nations Children and Emergency Fund (UNICEF), United Nations (UN) and Ministries, Agencies, and government parastatals were also sought.

There were 421 occupied residential buildings in the study area, (author's pre-survey exercise, 2023). 105 households, representing 25% of the target household population, were chosen as the sample size. Systematic sampling technique was used in the administration of the questionnaire at every 4th residential building on household basis in the study area. Owing to the invalidation of one of the administered copies of questionnaire due to observed inconsistencies 104 were analyzed using descriptive statistics.

5.0 Results and Discussion

5.1 Respondents Usual Place of Defecation in Molege

50% of the respondents informed that they usually defecated in the dung hills. This revelation corroborates Plate 1 which shows a very big dung hill among the 6 identified spots used for defecation in Molege. 30.8% of the respondents said they usually defecated inside the bush. 11.5% reported that they used to defecate anywhere in the study area while 7.7% said they used toilet whenever the need to defecate arose (Table, 13). The inference that could be drawn from the above result is that, only 7.7% of the respondents usually defecated in the toilet. It is absurd that in this modern age, a whopping 92.3% of the respondents either defecated inside the bush, dung hills, or anywhere in the area.

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Plate 1: One of the dung hills where most of the residents in Molege use to defecate.

Table 1: Respondents Usual Place of Defecation

Usual Defecation Place	No. of Respondents	Percentage
Inside bush	32	**30.8**
Inside Drainage	**---**	**---**
Toilet	8	**7.7**
Dung hill	52	**50.0**
Inside stream/river	**---**	**---**
Inside dug soil	**---**	**---**
Anywhere	12	**11.5**
Total	**104**	**100**

Source: Author's field survey, 2023.

5.2 Types of Toilet in Molege

The major types of toilet facilities accessed by households in Molege include: Flush toilet, pit latrine with slab, and squat toilet. Table 1 reveals that only eight (8) out of the total of one hundred and four (104) respondents sampled at the study area used toilet facilities in their residences. Out of these eight (8) respondents, 12.5% of them used flush toilet. 62.5 % of the respondents submitted that they used pit latrine with slab in their various residences. 25% of them said they used squat toilet (Table, 2). It is evident that pit latrine with slab was the most used by the few residents that used toilet facilities in the area. This revelation corroborates Plate 2 which shows the only public toilet identified in Molege. The plate shows a 5 units' squat toilet that was constructed by a private individual and commercialized. It had a big overhead tank that was usually filled with water from water vendor. It was located behind the market and functioning well, but not adequate to serve the population of the people in the market and the entire village. Based on the fore-going, a research work of this nature on assessing toilet facilities in Molege, Owo Local Government Area, Ondo State, Nigeria, is inevitable at this time.



Plate 2: The only Public Toilet in Molege

Table 2: Types of Toilet Facilities in Molege

Types of Toilet	No. of Respondents	Percentage
Flush toilet	1	12.5
Pit latrine with slab	5	62.5
Pit latrine without slab	---	---
Squat toilet	2	25.0
Total	**8**	**100**

Source: Author's field survey, 2023.

5.3. The Challenges Associated with Lack of Toilet in Molege

The challenges associated with lack of toilet facilities by respondents, as shown in Table 3 include: snake bite, insects bite, lack of privacy and discomfort. However, 2.1% of the respondents said they were once bitten by snake when they went to defecate in the bush, 22.9% of them revealed that insects bite had been their major problem whenever they went to defecate in the bush. The survey revealed further that 15.6% of the respondents said lack of privacy was their major ordeal, as some other individuals may also be at the dung hill or inside bush to defecate at the same time with them.

In addition, the study revealed that, 13.6% of the respondents were never comfortable sharing the dung hill or bush with residents whenever they went to defecate, but 45.8% of the respondents revealed that they experienced insects' bite, lack of privacy and discomfort almost every time they went to defecate.

The inference that could be drawn from the challenges above is that, majority of the respondents had harrowing experiences in their quest to defecate, because of lack of toilet in their area. This has provided the basis for urgent need of toilet provision in the study area.

Table 3: The Challenges Associated with Lack of Toilet in Molege

Challenges	No. of Respondents	Percentage
a) Snake bite	2	**2.1**
b) Insects bite	**22**	**22.9**
c) Lack of Privacy	**15**	**15.6**
d) Discomfort	**13**	**13.6**
e) B, C, and D	**44**	**45.8**
Total	**96**	**100**

Source: Author's field survey, 2023

5.4 Socio-economic Characteristics of the People in the Study Area

This study examined the socio-economic characteristics of people in Molege. Sandra (2019) inferred that socio-economy is a branch of economics that focuses on the relationship between social behaviour and economics. This assertion also applies to people and their perceptions about provision and usage of toilet facilities in their home. The socio-economic variables considered in this study includes, educational qualification, occupation and monthly income of respondents in the study area.

5.4.1 Educational Qualification of Respondents

Education shows us the importance of hard work and, at the same time, helps us grow and develop. This is the main reason education is a very important variable for this study. If majority of the residents of Molege were literate and educated, they would get better-paid jobs and help to shape the society by knowing and respecting rights, laws, and regulations. This will invariably enhance the provision and usage of toilet in the area. Hence, gauging the peoples' educational qualification is pertinent to this study.

Gauging educational qualification of the residents in Molege, from respondents' perspective, 8.7% of them possessed tertiary education certificates, 52.9% had secondary education, 26.9% had primary education, and 11.5% of the respondents had no formal education (Table 4). The inference that could be drawn from table 3 is that, the highest educational qualification of majority of the people in the study area was secondary education, from which 11.5% had no formal education in this modern age. This may have significant effect on the level of literacy in the study area and subsequently hinder the provision and usage of toilet facilities in the area.

5.4.2 Occupation of Respondents in the Study Area

The occupational status of respondents in Molege as shown in table 3 indicates that, 70.1% of the respondents engaged in farming activities, 26.0% of them were traders/artisans, 3.9% were students, none of the respondents were unemployed; there were no civil servants and no retiree among the respondents in Molege. The result here clearly shows that, almost all the respondents engaged in farming activities. But few of them were either artisan or traders which corroborates the result of educational qualification of respondents in Table 1, and this has direct effect on their monthly income and standard of living, which invariably affected their ability to provide and use toilet facilities at home.

5.4.3 Average Monthly Income of Respondents in the Study Area

Hornby (1998) stated that income is the money received over a certain period, especially as a payment for work or as interest on investment. This study believes that the higher your income, the wider your scope of responsibility. This, in turn, suggests that if your income is high and regular, then you can accommodate more responsibilities like provision and usage of improved toilet facilities for your household; that is after other priorities like feeding, clothing and paying bills have been settled. Hence, it is necessary to measure the average monthly income of the people in the study area. The average monthly income of respondents shows that the income varied from ₦18, 000 to ₦80,000 and above. 58.7% of the respondents' incomes were less than ₦I8,000, 25% of the respondents' incomes ranged between ₦18,000 and ₦40,000, 13.7% earned between ₦40,000 and ₦80,000, 2.9% of the respondents earned above ₦80,000 (Table 4).

One can infer from above that majority of the respondents still lived below the poverty line of $2.15 per person per day (World Bank, 2022), with the current exchange rate of 1USD = #775.50. That means over 83.6% of the respondents still earned below #46,530 per month. Hence, they could hardly cater for their immediate families. This makes the idea of providing toilet facilities to be of no interest to them. Even if it is obvious, it will be ignored because it cannot be one of the priorities of the family in the nearest future. Hence, the provision and usage of improved toilet facilities could be a mirage, until the issue of sustainable income for majority of the residents is adequately addressed.

Table 4: Showing Socioeconomic Characteristics of the People in the Study Area

Educational Qualification			Occupation			Income		
Level	No of respondents	Percentage (%)	Occupation	No of respondents	Percentage (%)	Amount in thousand (₦)	No of respondents	Percentage (%)
No formal education	12	11.5	Farming	73	70.1	<18	61	58.6
Pry School	28	26.9	Trading/artisan	27	26.0	18-40	26	25.0
Secondary	55	52.9	Civil service	-	-	40-80	14	13.5
Tertiary	9	8.7	Unemployed	-	-	80-100	3	2.9
			Student	4	3.9	100-150	-	-
Total	104	100		104	100		104	100

Source*: Author`s field survey, (2023).*

5.5 Interest of Respondents in Using Improved Toilet Facilities

Analysis of the level of interest in the provision and usage of improved toilet facilities in this study was borne out of the conviction that the long-term sustainability of toilet facilities can only be guaranteed, if the people are willing to build and use it.

The study revealed that 49.0% of the respondents expressed absolute willingness to build and use improved toilet facilities in their homes, while 47.1% said they were willing to build and use the facilities. 3.9% of them were not willing to build and use improved toilet (Table 5). The inference that could be drawn from this result is that almost all the respondents were interested in building and using improved toilet facilities in the study area. But, the financial implication has been the impediment, since majority of them earned below the 'per person per day' standard of living. This might be the reason for the lack of improved toilet facilities in the area. In addition, since the poor predominated the area, it was the general belief that they would be reticent at spending thousands of naira just to build toilets for such purpose as to defecate, when they had alternative places to defecate at no cost.

Table 5: Interest of Respondents in Using Improved Toilet Facilities

Interest	No. of Respondents	Percentage
Absolutely willing	51	49.0
Willing	49	47.1
Not willing	4	3.9
It should be for high class	---	---
Total	104	100.0

Source: Author's field survey, 2023.

6.0. Conclusion and Recommendations

Provision and usage of improved toilet facilities in most rural areas of Nigeria could best be described as precarious. Given the rate of population increase, access would worsen in the coming years. However, this study has provided an insight to the analysis that could harness diversity and inclusion of capacity- building for sustainable provision and usage of improved toilet facilities in the study area.The comprehensive information and materials presented in this study are enough facts that could be used to guide the workability of sustainable provision and usage of improved

toilet facilities in Molege. This, therefore, requires that Ondo State Government should evolve a well-articulated policy on the provision and usage of improved toilet facilities in the rural areas of the State. The following recommendations were made.

- Ondo State Government should enhance partnership with the Federal Government of Nigeria and International Development Agencies like: the WHO, UNICEF and the United Nations, to assist in the provision of improved toilet facilities that will be accessible and usable by the residents.
- The State Government should adopt the diffusion of Innovation Theory through knowledge, persuasion, decision, implementation and confirmation in order to ensure sustainable provision and maintenance of toilet facilities in the area.
- The public should be sensitized through public enlightenment campaign, either with the help of traditional rulers, religious leaders, prints and or electronic media, to educate the people on the importance of provision and usage of improved toilet facilities in the area.

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