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Health Sanitation: Access to Sanitary Facilities of the Indigenous Peoples' Communities in Southern Philippines

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***Abstract* —** *This article deals with the health sanitation of the hitherto access to sanitary facilities among the selected indigenous peoples' (IPs) communities in the Southern Philippines. Due to the scanty works that delved on the health sanitation of the IPs, this study is critical since it documents the availability of sanitation facilities in the grassroots and how far the government's efforts have reached in meeting the needs of the said communities. The researchers employed both quantitative and qualitative methods, and this research used triangulation to check and counter-check the reliability of the data.. The study found that though the indigenous communities could access sanitary facilities, these needed to be increased for their availability and maintenance. Due to challenges, these resulted in specific problems in the areas.*

Keywords — *Health Sanitation, Access to Sanitary Facilities, Well-being, Indigenous Peoples' Communities, Government Service*

I. INTRODUCTION

Access to health sanitation is one of the critical areas prioritized internationally and locally since it affects the population's overall well-being. Sanitation is part of the sustainable development goals (SDGs) of the United Nations under Goal 6, which is a human right described as a most basic human need for health and well-being.. Moreover, the World Health Organization included sanitation as part of safe water, sanitation, and hygiene (WASH), which is a prerequisite to essential health and affects an individual's livelihood and dignity. Basic sanitation facilities refer to the improved pit latrine with slab, a ventilated pit latrine, and a flush toilet that separates males from females that are available near the premises in the public or households. On the other hand, unimproved sanitation facilities mean a pit latrine without a slab, hanging, and bucket toilets (UNESCO Institute for Statistics, 2023). Consequently, though sanitation is recognized as a fundamental right, its realization still needs to be improved due to rapid population growth, which remains one of the most critical problems globally (Adugna, 2023).

Despite the serious attention provided for improving sanitation worldwide due to its key role in promoting health and avoiding the spread of diseases, several challenges are still prevalent, particularly in developing countries. This is particularly true in the Philippines, more so in places belonging to GIDAS as well as indigenous people's communities. GIDAS are the geographically isolated disadvantaged areas that are separated from the mainstream, physically due to distance, transportation difficulties, and weather conditions, and socio-economically due to high poverty levels and vulnerable sectors, among others (DSWD, 2023). Meanwhile, indigenous peoples are attached to geographically distinct traditional habitats or ancestral territories and are part of a distinct cultural group before current borders were created (WHO-Health System in the Philippines, 2011). There are several challenges concerning sanitation efforts, particularly in the grassroots communities. Also, there is a need for more serious attention on sanitation since better government service delivery, such as access to health facilities, means improved health outcomes and trajectories (Collado, 2019).

Furthermore, though there are various studies about sanitary facilities, more research is needed to explore indigenous people's communities situated in disadvantaged areas since these communities are generally poor with less government funding and far from the center. Hence, their plight is sometimes unheard of, or their needs are less prioritized. Moreover, sanitation studies focus more on hospitals, schools, service industries, and manufacturing companies. Scanty work has been done on the indigenous people's communities in the GIDAS and the barangay (grassroots government) health service delivery. Thus, the research outcome of this study

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could provide a modest contribution to the body of knowledge and increase knowledge production about health sanitation and well-being in the health service delivery of the indigenous peoples.

The specific objectives of this study are to determine the socio-demographic profile of the study participants, accessibility of the indigenous people's communities to sanitary facilities and the challenges encountered. Policy recommendations were also provided for sustainable interventions to further capacitate the government in delivering better sanitation to its inhabitants.

II. METHODS

This research employed a quantitative-qualitative type of research designed to survey and document the health sanitation of the indigenous peoples' households, specifically the Blaan households.

The data collection techniques included the Survey and Key Informant Interview. Data collection from diverse sources guided by the interpretivist philosophical worldview provided a deeper understanding of the research problem. Using a triangulation method, the data collected were checked and counter-checked by the different methods, yielding more reliable data results.

The study participants were the heads of the households of the two IP communities. They were inhabitants of the study areas and were surveyed using a semi-structured questionnaire. One hundred households were taken for the survey to be distributed equally to the two identified areas. The method used in choosing the respondents was a purposive quota sampling employed to determine the households. The researchers relied on the knowledge of the local contacts in selecting respondent families.

Meanwhile, the study informants for the Key Informant Interviews (KII) were the implementing agencies that provided services to the inhabitants of the two communities. They were chosen as informants because they were the most knowledgeable personalities and provided valuable information about government initiatives in promoting health sanitation in the areas. These personalities were the health workers and nutrition scholars from the Barangay Health Centers, Barangay Captains/Barangay Councilors, tribal leaders, and community leaders.

The research locale was the two selected indigenous community areas, specifically the Blaan communities. Accessibility, peace and order conditions and known places of at least one Blaan group were the reasons for the selection. The Blaan people are one of the indigenous communities in the Southern Philippines. The core areas are Sarangani, Jose Abad Santos, Malita, and San Marcelino. They are now widespread in the Sultan Kudarat and South Cotabato, with an estimated population of 450,000 (National Commission for the Culture and the Arts). Consequently, Sarangani Province was the chosen research locale, specifically one (1) Blaan community, each selected for Malungon and Glan. For the Malungon Municipality, the area chosen was Barangay Blaan, and for the Glan Municipality, Barangay Cablalan was the study locale selected. A *'barangay'* is the smallest local government unit in the Philippines.

Barangay Blaan is situated in the Malungon Municipality, Sarangani Province, estimated at 560.8 meters above mean sea level. It has a population of 1,567 (2020 Census), representing 1.49% of the total population of Malungon. Meanwhile, Barangay Cablalan is 34.7 meters above mean sea level with a population of 3,234 (2020 Census), and one of the barangays of Glan Municipality.

Hence, the barangays mentioned above, which are also the study locales, are identified as geographically isolated disadvantaged areas in which most of their inhabitants belonged to the indigenous communities, particularly the Blaan communities.

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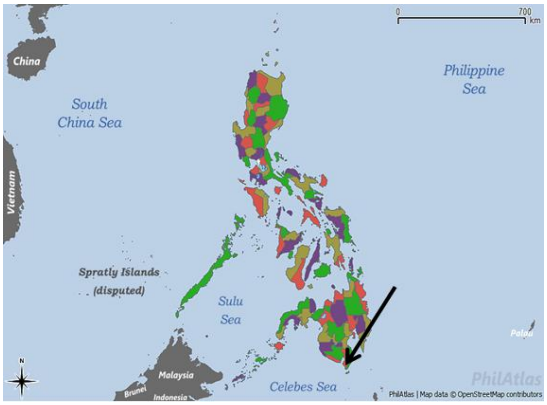

Fig 1: Map of the Philippines with the Study Areas (PhilAtlas, 2023)

III. THEORETICAL FRAMEWORK

The framework that is linked in this study is anchored in the *Good Governance Approach,* which the United Nations, the World Bank, and the Asian Development Bank advanced. Good governance is about empowerment that measures the relationships between the government and citizens. It is not only for the government but also for the active participation of the people towards social justice, people empowerment, the rule of law, and equality (Lazo, 2011). According to the Asian Development Bank (2005), good governance is synonymous with sound development management. UNDP (1997) stated that it embraces all the methods societies use for power distribution, public resources, and problem management. Another critical theory that is linked to the study is the *Framework on Sustainable Development Goal 6 of Clean Water and Sanitation.* This framework is advocated by the United Nations and the World Health Organization because of its essential roles to advance basic human needs. The universal access to sanitation is one of the 17 Global Goals that make up the 2030 Agenda for Sustainable Development. An integrated approach is crucial for progress across the multiple goals (Joint SDG Fund).

IV. RESULTS AND DISCUSSION

This part determines the (A) socio-demographic profile, (B) access to sanitary facilities, and (C) problems and challenges health sanitation encountered. A total of 50 Blaan households in Barangay Blaan, Malungon, and 50 Blaan households in Barangay Cablalan, Glan, were included in the study for the survey method. For the key informant interviews, the representatives of the implementing government agencies, as well as the tribal/community leaders, were personally interviewed.

A. Barangay Blaan, Malungon Municipality

1) Socio-Demographic Profile

Malungon Municipality is composed of 31 landlocked barangays. Barangay Blaan lies in the western part of the municipality. It is bounded on the north by the Municipality of Malalag, on the east by Barangay Malabod, on the west by Barangay Datal Batong, and on the south by Barangays Datal Bila and Alkikan. Barangay Blaan's approximate 1841 hectares total land area is divided into four (4) puroks and four (4) sitios. It is known for its corn and pineapple plantations and mountains traversing provincial and municipal boundaries. It lies 550 meters above sea level. Its Poblacion is approximately 29 kilometers from the national highway and can be reached via *habal-habal* in a two-hour ride for a fare of ₱50 ($.90) per person.

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TABLE I
FAMILY'S MONTHLY INCOME IN BARANGAY BLAAN

Monthly Income per Family	*f*	%
<₱1000 ($18.03)	4	08.00
₱1000-₱2000 ($18.03-$36.06)	28	56.00
₱2000-₱4000 ($36.06-$72.11)	11	22.00
₱4000-6000 ($72.11-$108.16)	3	06.00
₱6000-₱8000 ($108.16-$144.21)	2	04.00
>₱8000 (>$144.21)	2	04.00
Total	**50**	**100.00**

Table 1 shows that in Barangay Blaan, the category with the highest frequency is ₱1,000-₱2,000 ($18.03-$36.06), with 28 respondents, or 56% of the total population. The second largest category is ₱2,000-₱4,000 ($36.06-$72.11). The third is the four (4) respondents earning a monthly income of less than ₱1,000 ($18.03). The lowest frequencies belonged to the two highest monthly income categories: ₱6,000-₱8,000, and ₱8,000 and above—they had two (2) respondents each.

Looking at the economic capacity of the respondent families in Barangay Blaan, most received a monthly income below the minimum.

TABLE II
OCCUPATION OF RESPONDENT-FAMILIES IN BARANGAY BLAAN

Occupation	*f*	%
Barangay Nutrition Scholar (BNS)	1	1.00
Barangay Official	2	2.00
Driver	1	1.00
Farmer	46	46.00
Housewife	48	48.00
Laborer	1	1.00
Overseas Filipino Workers	1	1.00
Total	100	100.00

Table 2 shows that in Barangay Blaan, 48 (48%) respondents are housewives, 46 (46%) are farmers, 2 (2%) are Barangay officials, and the remaining are Barangay Nutrition Scholar (1), driver (1), laborer, and OFW (1).

Therefore, most of the respondent-families in Barangay Blaan are housewives. The farmer group is the next populous respondents. Farming is common in Barangay Blaan because the community is situated in a highly arable land fit for agricultural processes.

2) Access to Sanitary Facilities

TABLE III
SANITARY FACILITIES USED BY THE FAMILIES IN BARANGAY BLAAN

Sanitary Facility	*f*	%
Water-sealed Toilet	49	98.00
Antipolo Type	1	02.00
Total	50	100.00

Table 3 shows the sanitary facilities used by the respondent-households in Barangay Blaan; 98% or 49 of 50 households used water-sealed toilets except for 1 (2%) respondent-family who used the Antipolo type. The water-sealed toilet is a flush toilet that seals water to prevent odor and insects from coming up the pipe (Sanitation Technologies in Emergencies). On the other hand, the Antipolo type is a toilet system with a pit that

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is tightly capped and is at least 4 feet 8 inches deep with a slab made of stone or concrete, and the seat cover automatically closes when not in use to prevent insects from coming (Steffan, 2023).

Water-sealed toilets used by the respondents came from two sources: (1) donated by the Local Government of Malungon and Glan to improve the sanitary measures of the two municipalities (which later on earned them the title of 'zero open defecation' municipality); (2) bought by the families that can afford to do so. The one with Antipolo type of sanitary facility is somewhat acceptable because of—the distance to be trodden by the *habal-habal* to deliver the water-sealed toilet; it can't afford to buy one; it will be prioritized for the next delivery of donated toilet.

Though all the study respondents included in the survey of the barangay already used a toilet, 44.6% of the 100% total population of Barangay Blaan still need access to sanitary facilities. The information below was the data collected from the implementing government agencies using the method of Key Informant Interviews (KII).

Based on the profile of Barangay Blaan as to access to sanitary facilities as a whole, according to 2011 CBMS data, out of 314 households in Barangay Blaan, 140 or 44.6% have no access to clean toilets. This situation is common to families in far-flung sitios. Sitio Magbok has seven households, and all have no sanitary toilets, a proportion of 100%. Likewise, out of 56 total homes in Sitio Samlang, 51, or 91.1%, have no access to hygienic toilets.

In the Barangay Development Plan 2014-2018, officials, health workers, and residents pointed out these reasons why almost half of the barangay's total households have no access to sanitary toilets: a) Newly migrated families commonly have no sanitary toilets; b) There was a lack of toilet basin supply distributed by the municipal government; c) Other remote communities in sitios do not have a sufficient supply of water.

Aiming to address the problem, they pointed out these solutions: a) verification of the number of existing sanitary toilets through house-to-house inspection; b) follow-up request for additional water-sealed toilet basins from the municipal health office; c) regularly conduct house-to-house monitoring and information campaigns.

The Barangay Sanitary Inspector was responsible for checking the lavatories and sanitary practices of the residents. The sanitary inspector's role is crucial in maintaining cleanliness and sanitation in the barangay. She roam and inspect homes weekly to check their sanitary situation: if soaps are available; comfort rooms thoroughly cleaned or not.

The Barangay Sanitary Inspector had reached a point where residents who did not comply with the sanitary toilet requirement were called forth in the barangay. She asserts that the residents who receive support from 4Ps and IPs should be "cleared" (or checked) by her before receiving certain benefits. The master list was then issued to the midwife for rechecking to monitor the residents' health practices and sanitation.

The only problem the interviewees mentioned was the uncooperative stance of the inhabitants. Thus, the solution is to call for a meeting by the barangay to discuss the issues.

According to the barangay health workers (BHWs), the public toilets in the barangay proper are already dilapidated and unsanitary. The Rural Health Unit (RHU) needs a budget to pay personnel for the maintenance of the facility.

Previously, the Malungon municipal government had distributed 300 toilet bowls to all its barangays to diminish the defecation percentage in any place. However, in Barangay Blaan alone, a few toilet bowls received were insufficient for the households in need of sanitary facilities.

TABLE IV
FAMILY PRACTICES ON GARBAGE DISPOSAL IN BARANGAY BLAAN

Garbage Disposal	*f*	Rank
Burning	46	1st
Composting	30	2nd
Throwing at the river/creek	12	3rd
Total	88	

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Table 4 shows that the primary practice used by the respondent families in Barangay Blaan is burning with a frequency of 46. Composting is also practiced (30), as well as throwing garbage at the river/creek (12).

'Burning garbage' is the leading garbage disposal practice in Barangay Blaan, with 46 households practicing it. Burning garbage for a meager amount is slightly considerable when all the wastes are biodegradable (e.g., leaves, trunks, stems). The trees benefit from the Nitrogen and Carbon Dioxide emission of the smoke. The problem is that when one burns non-biodegradable waste (e.g., plastic or rubber) and has not kept the fire manageable, it causes wildfire.

B. Barangay Cablalan, Glan Municipality

1) Socio-demographic Profile

Based on the Barangay Profile, Barangay Cablalan has an estimated total of one thousand ninety-nine hectares of land with an estimated total of eight hundred forty-seven households and eight hundred fifty families. It has a total population of three thousand two hundred sixty-nine. Barangay Cablalan has seven (7) puroks, namely: Mangga, Cogon, Islam, Talisay, Tinago, Datu Wata and Highway.

The barangay is agricultural, belonging to rural and coastal areas of the Municipality of Glan. Barangay Cablalan, with the council and the constituents, is socially, peacefully stable, integrated into national society while preserving the tri-people to their beneficial tradition, values, rights, ways, knowledge, and skills.

TABLE V
FAMILY'S MONTHLY INCOME IN BARANGAY CABLALAN

Monthly Income per Family	*f*	%
<₱1000 ($18.03)	0	0.00
₱1000-₱2000 ($18.03-$36.06)	41	82.00
₱2000-₱4000 ($36.06-$72.11)	4	8.00
₱4000-6000 ($72.11-$108.16)	1	2.00
₱6000-₱8000 ($108.16-$144.21)	1	2.00
>₱8000 (>$144.21)	3	6.00
Total	50	100.00

Table 5 indicates that in Barangay Cablalan, 41 (82%) respondents received a monthly income of ₱1,000-₱2,000 ($18.03), followed by 4 (8%) who are earning between ₱2,000-₱4,000 ($36.06-$72.11), ₱4,000-₱6,000 ($72.11-$108.16) and ₱6,000-₱8,000 are made monthly by 1 (2%) respectively ($108.16-$144.21), and 3 (6%) of the respondents earned more than ₱8,000. Hence, a high majority of the respondents are earning a monthly income of ₱1,000-₱2,000 or $18.03.

Like Barangay Blaan, the respondents receive a monthly income below the minimum level.

TABLE VI
OCCUPATION OF RESPONDENT-FAMILIES IN BARANGAY CABLALAN

Occupation	*f*	%
None	4	4.00
Businessman/woman	7	7.00
Carpenter	1	1.00
Cosmetologist	2	2.00
Driver	4	4.00
Farmer	16	16.00
Fisherman	16	16.00
Housekeeper	27	27.00
Housewife	12	12.00
Laborer	6	6.00
Service Crew	1	1.00
Storekeeper	3	3.00
Tailor	1	1.00
Total	100	100.00

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Table 6 presents that the highest percentage of the respondents' occupation in Barangay Cablalan are housekeepers, followed by farmers and fishermen with 16 (16%) respectively, 12 (12%) are homemakers,7 (7%) are businessmen/businesswomen, 6 (6%) are laborers, 4 (4%) are drivers and another four respondents have no occupation at all, 3 (3%) are storekeepers, 2 (2%) are cosmetologists, and 1 (1%) each is a carpenter, a service crew and a tailor. Meanwhile, in Barangay Blaan, 48 (48%) respondents are housewives, 46 (46%) are farmers, 2 (2%) are Barangay officials, and the remaining are Barangay Nutrition Scholar (1), drivers (1), and OFW (1).

The diversity of occupation in Barangay Cablalan may be attributed to its geographical set-up since it is a coastal barangay, but farming is also common in the mountainous areas.

2) Access to Sanitary Facilities

TABLE VII
SANITARY FACILITIES USED BY THE FAMILIES IN BARANGAY CABLALAN

Sanitary Facility	*f*	%
Water-sealed Toilet	50	100.00
Total	50	100.00

In Barangay Cablalan, out of 50 respondent families, 100% had the water-sealed toilet for sanitation.

As part of the municipality's zero open defecation campaign, they made the program available to the selected families in the survey. However, not all residents in Barangay Cablalan installed it due to the lack of family budget. After receiving the bowl, the family was responsible for the installation. Below are the data from the implementing government agencies who served as the key informants of the study.

Provision of toilet bowls, encouragement of toilet sanitation, and house-to-house visitation and inspection of toilet facilities are part of the local government unit's (LGU) programs. The LGU of Cablalan provided toilet bowls to its residents. The residents would provide their materials for installation. An estimated 80% of households have toilet bowls with the help of the LGU and the support of one organization headed by Sister Susan.

Toilet bowls were made available by the LGU, but some recipients couldn't install the comfort room (CR) because they were still waiting for financial support from the government to provide the installation. However, the LGU couldn't offer this due to a lack of budget. Also, the soil was sandy, particularly in puroks located along coastal areas like Purok Datu Wata. During heavy rains, the river overflows, and in return, waters would stay. Hence, outbreaks of illnesses may occur. The toilet installation may sometimes fail to be successful. Due to the sandy soil, only a 5% success rate is recorded for households located along the bay.

They were requesting funds from the municipal government for a public septic tank since some residents experienced diarrhea. Achievement of zero open defecation was still a continuing challenge for some residents and LGU.

Lastly, garbage collection was more of an individual initiative since there was a lack of a Solid Waste Management Program in Barangay Cablalan. It was not the priority of the LGU during that time.

TABLE VIII
FAMILY PRACTICES ON GARBAGE DISPOSAL IN BARANGAY CABLALAN

Garbage Disposal	*f*	Rank
Burning	49	1st
Composting	6	2nd
Throwing at the river/creek	5	3rd
Total	50	

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Table 8 shows the family practices used by the respondent families in Barangay Cablalan: burning with a frequency of 49; composting is also practiced (6), and garbage is thrown at the river/creek (5). Barangay Cablalan has no solid waste management program, no dump truck, and no garbage collection.

'Throwing at the River' is another practice of the respondents in both barangays. This should be refrained to avoid clogging the streamlines, dikes, linings, and the like. 'Composting' is the most ideal among the three. By letting the garbage decompose (i.e., biodegradables), one has produced natural fertilizer for the soil.

Based on the data gathered from the two (2) barangays - Barangay Blaan and Barangay Cablalan, though the residents availed the program of the province for zero open defecation by providing a toilet bowl for each family household, still challenging for some residents especially for those located in the remote areas where transportation is a struggle, water supply is insufficient, and those found in the coastal areas where the soil is sandy, in which installation is complicated.

C. Problems and Challenges Encountered in the Access to Sanitary Facilities in Barangay Blaan and Barangay Cablalan

Despite the efforts of the local government units (LGUs) and other government implementing agencies to promote sanitary facilities for the resident families, more is needed for beneficiaries. These efforts are needed more than ever since the community still has many identified problems and challenges.

In sanitation, the local government units (LGUs) provided free toilet bowls to the residents, and the residents, in return, would install their comfort rooms or toilet. Still, due to poverty experienced by most residents, only an estimated 80% of residents successfully installed their toilets or comfort rooms, and the remaining 20% still need the support of the LGUs. Moreover, for the households located along the bay, the soil is sandy; hence, the toilet installation sometimes needs to be improved. In addition, the residents are requesting funds for a public septic tank, but it is still a waiting game for the residents. Also, diarrhea was experienced by some resident families. Lastly, garbage collection is also more of an individual initiative since there is a lack of a Solid Waste Management Program in Barangay Cablalan. There is no Solid Waste Management Program (SWM), waste collection, or dump truck.

V. CONCLUSIONS

Access to sanitary facilities is part of the fundamental human rights since it promotes the health and well-being of the people, and prevents the spread of diseases in the communities. Health sanitation as one of the sustainable goals of the United Nations, and part of the World Health Organization's safe water, sanitation, and hygiene (WASH) is critical for each person's essential health, dignity, and livelihood. Hence, active intervention is necessary.

The findings reveal that the study participants belonged to the indigenous people's communities where the locality is part of the geographically isolated disadvantaged areas (GIDAS) due to distance, transportation, economic conditions, and being part of the marginalized sectors. Almost all respondent families receive a monthly income at a bare minimum. Hence, most rely on government facilities, even basic household facilities like toilets. The local government units (LGUs) provided a toilet bowl to its residents as part of their 'zero open defecation' campaign. However, since the local government units in the GIDAS received only a minimal national tax allotment (NTA), attainment of the prioritization of projects and programs concerning health sanitation is insufficient.

Empowerment is its tenet based on the framework of a good governance approach. The government initiatives should be strengthened because the IP communities in Barangay Blaan and Barangay Cablalan are not yet empowered regarding the accessibility of basic facilities, particularly in sanitation. The government should do more work, especially among the grassroots governments nearest to its inhabitants, with close monitoring and support from the national government.

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