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ROLE OF STAKEHOLDER COLLABORATION IN THE SUSTAINABILITY OF COMMUNITY- LED TOTAL SANITATION IN SELECTED DISTRICTS OF THE NORTHERN REGION OF GHANA

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DECLARATION

I hereby declare that all information in this dissertation has been obtained and presented following the approved academic rules and ethical conduct. I also declare this piece of work as the outcome of my humble effort and that neither a part nor its entirety has been presented elsewhere toward the fulfillment of any degree. Published and unpublished literature that was reviewed is duly acknowledged.

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SUPERVISOR

I hereby declare that the preparation and presentation of the dissertation were supervised following the guidelines on the supervision of the dissertation laid down by the University for Development Studies.

Supervisor's Name: DR. NASHIRU SULEMAN

Supervisor's Signature……...… Date……...…

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This piece of work is dedicated to my lecturers, family, and friends.

ABSTRACT

Development collaboration promises to be more responsive towards our complex developmental problems and the interdependencies in the ecological system than traditional forms of organization. Collaborative relationships in this thematic area, involve independent organizations coming together to act jointly or participate in the developmental programmes by leveraging their resources and skills to achieving goals and aspirations for society. This research was conducted to assess the role of stakeholder collaboration in the sustainability of Community-Led Total Sanitation (CLTS) in the Northern Region of Ghana. The study employed both qualitative and quantitative research approaches to gather data, based on which conclusions and recommendations have been made. The study results indicate that stakeholders' collaboration in CLTS encouraged participation, commitment, and cooperation in project activities. Stakeholder collaboration also helped in building trust among project participants as well as in improving leadership, social obligation, and communication efficiency among the stakeholders. However, financing of CLTS was found to be a problem among beneficiaries who thought the short-term pre-financing did not afford them enough repayment time, leading to some defaults in payment. The study recommends that implementers of CLTS expand the material support given to community members on credit to cover a larger majority of them, and defaulters of this initiative should be sanctioned to deter others from doing the same. Finally, the survey highlighted the strong community demand for information on Open Defecation Free (ODF) sustainability and, therefore, recommends further study in this area. Despite frequent suggestions that follow-up and long-term support after CLTS triggering are critical to sustainability, little finance or capacity is allocated to these areas by projects or programs. The survey urges that greater priority be given to post-triggering activities in plans, programs, practice and that endeavours formed to document best practices for the long-term institutional support and monitoring of ODF (and non-ODF) communities.

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LIST OF ABBREVIATIONS

CBRDP	Community Based Rural Development Project
CLTS	Community-Led Total Sanitation
DA	District Assembly
DACF	District Assemblies Common Fund
DPCU	District Planning Coordinating Unit
ODF	Open Defecation Free
IGF	Internally Generated Fund
M&E	Monitoring and Evaluation
MA	Municipal Assembly
MCD	Municipal Coordinating Director
MCE	Municipal Chief Executive
MMDAs	Metropolitan, Municipal, and District Assemblies
NGOs Non-	Governmental Organizations
SPSS	Statistical Package for Social Science

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Collaboration among development actors promises to be more reactive towards our complex developmental problems and the interdependencies in the ecological system than traditional forms of organization. Ecological and developmental problems are the direct consequence of the disconnectedness within our ways of organizing our productive activities (Freeman, Harrison, & Wicks, 2010).

As long as community relationships are characterized by this disconnectedness and shaped mainly by economic exchange relationships oriented at profit-making, important voices will be excluded or will not be picked up. Community collaboration is urgently taken to include the critical and competent voices that have been shut out thus far in the debate about sustainable development (Fredericksen, & London, 2000).

Processes and approaches to implement community collaboration on a local or global level are labeled stakeholder processes (Hemmati, 2002), multi-actor collaboration (Craps, Dewulf, Mancero et al (2004), stakeholder partnerships (Hemmati, 2007), stakeholder dialogues Freeman et al (2010), participatory dialogues (Hemmati, 2007) or democratic dialogues (Pruitt &Thomas, 2007). Depending on the definitions, they can mean pretty much the same thing and are used interchangeably by some practitioners, whereas others take different meanings for these labels, especially for the meaning of partnership, dialogue, and collaboration. Freeman et al, (2002). For example, stakeholder processes have a more general term that covers consultation processes than dialogue-based (Sussikind, 2003).

However, Hemmati (2000b) reported that stakeholder processes are similar to collaborative and dialogic processes as are seen as integrating different stakeholders from diverse communal sectors and backgrounds in sustainable development processes. He further indicated that stakeholder collaboration intends to get different actors into constructive engagement, dialogue, and decision-making to collaboratively improve a place characterized by common and conflicting interests (Hemmati, 2000b).

Collaborative on the other hand involves independent organizations and actors coming together as partners to participate in developmental programs by leveraging their resources and skills (Streck, Charlotte, 2000). The main aim of such partnerships is to solve complex developmental problems that are beyond the reach of any single system. Furthermore, such a partnership provides platforms for the various establishments to bring diverse voices and ideas regarding approaches and schemes that could finally contribute to a comprehensive solution (Shatifan and Haq, 2008). Additionally, such partnerships can also result in improved organizational performance (Hemmati, 2000).

Many of the world's cities experience population growth that far exceeds their absorptive capacity in terms of conventional shelter, water, sanitation, infrastructure, public health services, exercise, teaching, food provisions, and environmental security. Urban areas in developing nations are particularly at risk since it is anticipated that 95% of the urban population increase will take place in the developing world over the succeeding two decades, and 80% of the world's urban population will be located there by 2030 (UNFPA, 2007).

These population escalating have posed serious challenges to sanitation service delivery as are exacerbated by the fact that many poor urban residents live in the unplanned and underserved informal settlements commonly known as slums or in expanding peri-urban regions. Urban

administrations do not possess the capacity and often are not planning for service preparation in these marginalized areas (United Nations 2014).

Ghana is one of the most urbanized countries in Africa: an estimated 53% of the population lived in towns and cities in 2014. Recent urban growth has consistently averaged 3.5%, with some cities experiencing higher levels of growth (4.8% in Kumasi). Urban boundaries are still being shaped and districts and new municipalities continue to be created. The largest cities in Ghana are Kumasi (1.8 million), Accra (1.7 million), Sekondi-Takoradi (632,000) and Tema (310,000) (Goufrane Mansour & Harold Esseku, 2017).

Based on this statistic above, the vast majority of urban residents (73%) rely on shared sanitation facilities that can be either compound toilets (shared by a few households) or public toilets (usually fee-paying and accessible to all). (Goufrane Mansour & Harold Esseku, 2017). The JMP estimates that only 20% of urban residents have individual improved facilities (ISSER, 2010).

Open defecation is practiced by 7% of urban dwellers. Most toilet facilities (including individual toilets) are on-site technologies. Sewage facilities serve a small fraction of urban residents. Only three main cities have a sewage network: Accra, Tema, and Kumasi. In Accra, there are only 1,100 connections. Tamale which is the seventh-largest city in Ghana has no sewerage network system hence, increasing open defecation in the city (Goufrane Mansour & Harold Esseku, 2017).

It is widely known that a direction to make an organization stronger is to engage and collaborate with different stakeholders and to initiate and sustain constructive relationships with them (Freeman et al. 2008). These estimates have been examined extensively in the occupation arena. Business scholars affirm that introducing stakeholder thinking into the firm's operation has turned out to be extremely beneficial for both the system and its stakeholders (Freeman et al. 2008). Thus,

it is highly recommended to analyse stakeholder relationships from the perspective of small organizations (La plume et al. 2008).

Community-Led Total Sanitation (CLTS) as a stakeholder and non-profit making organization was being adopted by the people of Ghana in December 2012 as a rural sanitation strategy after several pilot projects were done. A few years into its implementation, the Northern Regions Small Towns (NORST) Water and Sanitation project started a pilot project seeking to test the viability of CLTS in small towns. The project selected two communities, Bincheratanga and Karaga in the Nanumba North and Karaga districts respectively. The project was overwhelmingly embraced by the people of the Northern Region. Therefore, this study is meant to assess the outcomes of the pilot study and lessons learned by exploring which concepts from stakeholder theory could be used in the grassroots context, and proposing alternative ideas to analyses stakeholder relationship and provide tools for small organizations to scale up their operations in the developmental agenda.

The concept of collaboration is progressively seen as an important part of development projects, motivated by the need to co-operate to attain the goal of self-sufficiency and growth (Rashid, Jabar, Yahya & Samer, 2015).

Rising societal challenges are exceedingly difficult for community members alone to confront, hence, the propensity for collaboration has become more exacting. Constructing a synergistic relationship among community members has become a durable tool for community development as well as a transformative tool to create shared values among members for the achievement of goals and objectives (Carter et al., 2015).

Furthermore, there is a serious challenge with collaboration in its framing. The collaboration is loosely connoted in the literature and the literature does not proffer a reliable and comprehensive

framework for active collaboration across disciplines (Broman & Robèrt, 2017). The want of coherence across disciplines lends itself to an array of explanations that have been coupled with the understanding of what collaboration means, which also leads to confusion among practitioners (Heemskerk, Wilson & Pavao-Zuckerman, 2003).

When the practitioners of an innovation adapt a collaborative initiative but fail to abandon their old ways of life such a collaboration tends to become unsuccessful and unproductive. Therefore, people enter collaborative relationships by making use of their subjective perceptions to ensure productivity (Casey, 2008). This research focuses on community development, thus, there is a need for an open development scheme that will be inclusive and stuffed with continual dialogue to enable the achievement of sustainability. Further, the idea of the creation of opportunities and provision of social needs is a matter of stakeholder collaborative strategies that will encourage the inhabitants and the general population (Muteshi, 1995).

Community-Led Total Sanitation can be attained through a decisive collaboration among stakeholders and networking that aims to resolve community problems and conducts the collective actions needed for sustainable growth (Greer, 2017). Community-Led Total Sanitation (CLTS), an innovative approach to gathering communities that will help to eradicate open defecation. This initiative was adopted in 2012 as a result of the fact that residential areas now facilitate and carry out estimations and analysis of their own regarding the state of Open Defecation. They further take their strategies which are naturally based on innovations to help collaborate towards an Open Defecation Free initiative.

The demand for change concerning open defecation thrives on its ways of effective collaborations among all involved stakeholders and not merely the fact that toilet facilities have been made available (UNDP, 2016). Community-Led Total Sanitation focuses on the rate of behavioural

changes that will enable sustainability in the area by eradication of open defecation. It requires community mobilization rather than putting in hardware and shifting the attention from the construction of toilet facilities for individual households to Open Defecation Free villages as an outcome of behaviour change communications (UNDP, 2016).

This is answered by promoting awareness through effective stakeholders' collaboration even if a small number of the population keeps defecating in the open because everyone is in danger of diseases when this attitude continues. Effective collaboration promotes the desire of the population for a collective change. This change brings the need for action, innovativeness, support, means of social sanctions, and adequate local solution which in the end provides magnificent ownership and project sustainability

1.2 PROBLEM STATEMENT.

The Northern Regional Health Directorate (2016) has estimated that over 73% of the population in the Northern Region both rural and urban, practiced open defecation as of 2016 leading to the emergent of diseases such as typhoid, cholera, polio, Tacoma. Furthermore, it is estimated that 2,468 metric tons of human excreta generated daily in the region are freely deposited in the open causing about 60% typhoid, cholera, polio, trachoma in the Northern Region in 2016. Northern Region ranks third highest among ten Regions with 73.9% open defecation (Health Directory Northern Region, 2016).

Tamale Metro, Sagnarigu, and Savelugu are among the districts with the highest percentage of people who practice open defecation. They are also the districts where none of their communities have stopped open defecation and the efforts of NGOs and field officers are not effective in reducing open defecation (Ghana Health Service, 2013). Going forward, he said his office is ready

to work with the worst-performing districts to do things right especially in the area of water, sanitation, and hygiene practices. Meanwhile, one thousand communities out of 4,412 communities in the Northern Region have been verified and certified as open defecation free which represents 23 percent of coverage in the region from an earlier 11.4 percent in January 2017. This is a 50 percent jump from the previous coverage thus if stakeholders remain committed and work assiduously they can achieve their goal of ending open defecation by December 2017. For instance, Abraham Marshall, (2017); Harter (2018); and Mosler, (2019) have all studied CLTS in diverse areas. But none has considered stakeholder collaboration. Hence, the research intends to assess stakeholders' collaboration in CLTS in ending open defecation in the Northern Region.

1.3 RESEARCH QUESTIONS

Main Research Question

What is the role of stakeholder collaboration in the sustainability of CLTS in the Selected District of the Northern Region of Ghana?

Specific Research Questions

1. What role does stakeholder collaboration play with regards to the implementation of CLTS in beneficiary communities?
2. What is the motivation behind stakeholder collaboration to the sustainability of CLTS in the Selected District of the Northern Region of Ghana?
3. What are the factors influencing the sustainability of CLTS in Selected District the Northern region?

4. What are the challenges to stakeholder collaboration in CLTS in the Selected District of the Northern Region?

1.4 RESEARCH OBJECTIVES

Main Research Objective

To assess the role of stakeholder collaboration to the sustainability of CLTS in Selected District of the Northern Region of Ghana.

Specific Research Objectives

1. To assess the role of stakeholder collaboration in the implementation of CLTS in beneficiary communities
2. To examine the motivation behind stakeholder collaboration to the sustainability of CLTS in the Selected District of the Northern Region of Ghana
3. To assess the factors that influence the sustainability of CLTS in the Selected District of the Northern Region of Ghana.
4. To assess the challenges to stakeholder collaboration in the implementation of CLTS in beneficiary communities.

1.5 SIGNIFICANCE OF THE STUDY

The exigency of this study is that it contributes to the existing knowledge on the work of stakeholders in terms of the promotion of sustainability of projects. Many sanitation programs which are participatory and are believed to be collaborative have over the years been ignored. This is because the socio-cultural factors in the beneficiaries' communities are not well taken into consideration before implementing a program. The knowledge generated by this study will inform project implementers about the benefits of stakeholder collaboration to project sustainability. The research will play a key role in the integration of projects for the development of sustainable goals.

With regards to this, the study will contribute to knowledge by identifying the underlining causes of ineffective stakeholder collaboration in the sanitation programs by examining how the designs and implementation strategy has affected stakeholder collaboration in achieving sustainable community-led total sanitation and also to recognize possible avenues for further research.

1.6 ORGANIZATION OF THE THESIS

The thesis is structured into five chapters with the first chapter giving the general introduction including the general discussion of the problem statement, the research questions, and finally the objectives and justification. The second chapter focuses on the literature review regarding the various components of the thesis which concentrates on the objectives of the study. Again, the theoretical and conceptual framework of stakeholder collaboration will be considered. The third chapter presents the design and methodology of the study. Analysis of data regarding the study and the discussion of research findings are captured under the fourth chapter. The last chapter presents the summary and conclusions backed with recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 UNDERSTANDING COMMUNITY-LED TOTAL SANITATION

Community-Led Total Sanitation (CLTS) is an alternative top-down approach to ending open defecation in communities. It was launched in 1999 by Kamal Kar together with Village Education Resource Centre (VERC), a member of the water aid in Bangladesh. Subsequently, it spread rapidly in other regions of Asia, Africa, Latin America, and the Middle East. This step has influenced many societies to devise different ways to construct their structures as an intervention for ending open defecation in their communities (Marmot & Bell, 2012).

The objective behind the CLTS is the total eradication of open defecation in society. The intent is that the whole population cannot continue to suffer from few people polluting the entire society (Bongartz & Movik, 2009). That is why CLTS aims to empower the community to take the initiative to construct their toilet by the use of endogenous material within the community rather than depending on modern materials which are expensive and difficult to be acquired by the local people (Godfrey, 2009).

The propagation of CLTS, more or less, coincided with the notorious structural adjustment programs (SAPs) of the 1980s that helped to overcome government spending and efficiency, providing basic services and also shifting its focus to the community as the locus for more interventions in the rural countries. This shift is stemmed from the increasing popularity of cots such as self-reliance and empowerment of communities. The slogan “small is beautiful” by Schumacher (1973) helped to promote the idea of self-reliance during the 1980s, with a growing focus on community mobilization in water sector projects (Behnke et al, 2017).

While CLTS has the production of a success story of growth, many obstacles before it can be said to deliver a viable route to the Millennium Development Goals (Clarke, Simpson-Hebert & Sawyer, 1996).

CLTS is an integrated model that focuses on achieving and maintaining the status of open defecation free (ODF). The model involves facilitating assessment and analysis of community members" defecation practices and the consequences of sanitation profiles, yielding a collective activity of becoming ODF (AMCOW, 2011).

CLTS is a clear representation of a revolutionary alternative to the traditional top-down sanitation methods (Ohemeng, Mabel & Aziiz, 2017). Unlike state-run health-enhancing programs that tend to focus on infrastructure and incentives, CLTS stresses community activity and alters the behavioural change which is a very important factor for acquiring a good sanitation condition (DiMaggio & Powell, 1991).

CLTS aims to enable the local community to analyze the problems and challenges associated with the fecal-oral disease spreading pathways and also identify suitable solutions locally. The goal is the total elimination of open defecation since it is taken for granted. This is because if even only a few people defecate in the open, it poses a great risk to the inhabitants (Crocker et al, 2016).

Strong emotions along with shame and disgusting attitude are generated through exercises like transects walk, mapping of defecation and various disease-transmitting routes via creatures in the ecosystem as well as measurement exercises aimed at drawing the attention of people living in villages to the number of feces (Lawrence et al, 2016). Such strong emotions draw the desire to effectively do something to bring change into society.

Botchway (2001) notes that CLTS should emphasize the process of empowering the community to take action on its toilet facilities from the readily available local materials. Therefore, what separates the CLTS from previously used methods including indigenous methods is by way of emphasizing facilitation rather than training or providing education about what's best for them and also advising them to take personal hygiene seriously. The CLTS is much focused on the development and building of a strengthened sense of awareness which as a result tends to promote sanitation where these mechanisms are effective (Kidanu & Abraham, 2009).

CLTS capacity is very strong in the rural setting where sewage is the cause of improper sanitation, and excreta and sewage disposal are not feasible (Black and Fawcett, 2008). That is why building and the demand for CLTS in our rural societies are very much important and mainly add value to the desired change of our societies. However, additional problems occur since there are a large space, fragmentation, and tenure instability (Foundation & CLTS Fdn, 2012). Besides, CLTS is based on the concept of causing improvements in social behaviour. This is a strategy that encourages communities to take concerted efforts to follow healthy actions concerning proper sanitation and helps ensure many households get access to these health and safety measures (Mlenga & Baraki, 2016). Besides, this approach allows people to imagine and recognize the detrimental consequences of the inadequacy in sanitation and building the capacity, and finding collaborations concerning health issues. Finally, society has become sanitized from different consequences concerning insufficient sanitary and safety practices for seeking its interventions and this is eventually released from open defecation (BRAC, 2011).

Furthermore, CLTS is a community approach and it is a paragliding term used by most organizations including UNDP (2016) who are rooted in development and leadership based on actions, social change, and dedication to local innovativeness (Sah & Negussie, 2009). Essential

factors of the CLTS are structures meant for actions that provide a common basis for working as well as giving large variations in the implementation and translation processes (Crocker, Saywell, & Bartram, 2017). Also, the provision of a shared foundation for most programs to be translated locally has brought development in over 50 countries in Africa, Asia and Latin America (Zuin et al, 2019).

This revolutionary approach has brought massive improvement in sanitation and there have been suggestions that Africa recorded a higher success rate as compared to Asia which has a slower rate of success in CLTS (AMCOW, 2011). Furthermore, CLTS tests the progress concerning fieldwork of all the latrines installed in a given time and is focused on latrine usage and the complete phase of open defecation (Maulit, 2013). Mansour and Harold (2017) note that it is important to eliminate open defecation and hence encourage the creation of latrines that are ideally suited to people in terms of simplicity and appropriateness with continuous development and follow-up.

This approach encourages versatility in terms of the language and usage of lavatories with a focus on gradual caliber change and lavatory forms based on conviction of the intrinsic advantages in the use of lavatories as there is no support for the construction of household latrines (Hothur, Arepalli & DoddojuVeeraBhadreshwara, 2019). Under the guidance of trained facilitators, the CLTS approach is expected to keep the fuse advance in resolving the defined sanitation problems (Harter, 2018). The project aims to implement comprehensive access to sanitation production that is not limited to latrine construction but also involves hygiene promotion, solid and liquid (waste) environmental service in the city, and city control in terms of waste management (Babayemi & Dauda, 2010). The achievement of the above CLTS results depends on having a critical mass of professional instigators and trainers who are familiar with the basic concept of the method and provide the necessary support to societies to achieve and enhance their open defecation-free status.

It can be resolved by integrating daily sustainable development exercises in CLTS programs involving preparing and reskilling facilitators and trainers on core values and current field-based programmatic problems (Noy & Kelly, 2009).

CLTS does not require subsidies. The subsidy merely creates an intrinsic disposition of anticipation and dependency (Coghlan & Brydon, 2014; Crocker, Saywell & Bartram, 2017; Sah & Negussie, 2009; Stephan & Pathak, 2016). CLTS does not also recommend templates for latrines. Instead, it is promoting the community's effort and capability (Crocker, Saywell, Shields, Kolsky & Bartram, 2017). The goal is also to inflame and drive a self-urge to change behaviour. Many parts of society may have specific reasons to want the status quo changed. For example,

- Households who do their toilets will find out that they are more vulnerable to fecal-oral pollution because of the actions of those who don't.
- Landless people are frequently blamed and abused for defecating in other people's countries.
- Young and adult females suffer the most in terms of open defecation as a result of poor privacy.
- Religious leaders understand the irony of wearing clean clothes because human excreta coats could cause potential harm to them (Capps, Njiru & deVries, 2017).

The interest between different institutions is growing, especially as it is realizing that CLTS has great potential to contribute to the achievement of the millennium development goals. This has to do with water and sanitation directly or indirectly through the improvement of sanitation to achieve a strong fight against major diseases such as diarrhea. Nonetheless, the fast-institutional take-up of CLTS has thrown up some predicaments and challenges including the need for improvements in the donor perceptions and mindsets that want to protect and support CLTS.

2.2 SUSTAINABILITY OF COMMUNITY-LED TOTAL SANITATION

The United Nations Millennium Development Goals (MDGs) have targeted progress in sanitation coverage since it is close in connection to environmental and public health, economies and human dignity issues (Satterthwaite, 2016). Economically, viable hygiene schemes can be outlined as those that protect and encourage human health which does not lead to a degradation or deterioration of the asset base, that are technically and endemically adequate, economically feasible and culturally accepted (Musyoki, 2014). In this facet, the emphasis on the rise in the construction of CLTS should be mixed with the lessons that have been derived from previous interventions aiming at nurturing it for a sizeable future (Crocker et al, 2016). Large projects and programs of this sort that have undergone assessment by the world bank in 2001, only 50-66 % were considered adequate and less than half were considered sustainable (Nasution, Ginting & Roesyanto 2018). Planned evaluations regularly indicate cultural constraints, behavioural changes, prohibitive costs, lack of political and managerial attention, or low demand from the society as explanations for disappointment (Ke & Wei, 2008).

These shortcomings cover a variety of diplomatic, ethnic, and cooperative societies that have to be addressed if hygiene is to be placed on a sustainable footing (Coffey et al, 2015). Respondents and systematic hygiene management strategies will improve the capacity for a sustainable environment by adequately managing the multiple risk factors and improving capacity for effective supporting schemes throughout the local communities (Knutsen, 2013). For this reason, several agencies have built a promotional planning framework of sanitation that focuses on assessing consumer needs at different levels of choice-making in the urban setting. Research proves that sanitation programs may be assumed to be viable if extra time continues to be employed, including sanitation, the supply of water, including hygiene practices. This network of sanitation will provide

its clients many of whom will have access to something in the meantime, with the sustainable operation. Research again proves that reliability is highly dependent on customer engagement and access to public services to oversee the operation, which may also contribute to lasting gains (WHO, 2019).

Jenkins and Sudgen (2006) were not entirely different as they considered sanitation sustainability of products and services which go beyond external support. This calls attention to the household level which encompasses the intentions to take away or construct new holes when the available lavatories are filled with excreta. People in our villages and most of the rural settlers see sustainability to be a way of ensuring permanence (Moe & Rheingans, 2006).

McConville (2008) affirms the availability of distinct positions and movements around sanitation as well as sustainability. Sustainable sanitation is defined in the CLTS literature with adherence to the new sanitation action and long-term preservation of an open defecation-free status. This will holler for a general movement of households spontaneously constructing another (bet) latrine and moving up the sanitation ladder, which indicates sustainability. A second challenge identified is that the potential Pathways to Sustainability in Community-Led Total Sanitation as noted is the relapse into open defecation (OD), either due to passers-by or newcomers or because children, older people, or others are reluctant to change and revert to OD. In this regard, stakeholders within the residential areas that go forth during the operation are considered to act as a starring part in assuring that these changes are sustained (Moe & Rheingans, 2006).

In the pattern, two trends of perspectives can be recognized when looking at sustainability in CLTS. One focusing on changed sanitation practices and technologies (outcome) and another centered on the empowerment of the community (process), which would serve not merely to

address the challenges to their new sanitation practices, but likewise as a springboard to other actions such as garbage collection or even to further development goals (Ohemeng et al, 2017). Empirical studies range from a narrow and a static focus on the issue (whether ODF is maintained) to developing levels of incorporation of processor elements, like movements along the sanitation ladder, newcomers' rules against open defecation, an alliance of organizational processes (Galan, Kim & Graham 2013). The sustainability and everlasting of CLTS are to maximize the strength and permanence of behaviour modification of the beneficiaries. Therefore, it is important to realize the components parts contributing to undo or maintain improvements in behaviour. Early attempts at social mobilization to improve healthcare in Bangladesh were successful but short-lived largely because the change was initiated by external agents (government officials, NGO staff) and people soon returned to their old lifestyle once the project ended due to a lack of funding (Desai, Mcfarlane & Graham, 2015). Moreover, it has been established that the campaign to change needed to be internalized in the residential district, and from this insight sprang the idea of nurturing Natural Leaders who are often from the local community.

The secret to changing community conduct is the willingness of implementers and natural leaders otherwise known as stakeholders within the district and communities to be conscious of the anticipated feelings of disgust and shame that help to spark an active process of changing practice. Stakeholders selected from the communities are genuinely okay at implementing change than many of the NGO staff, similarly, they are familiar with the local language, customs, and everyday lives of people living within the Metropolitan, Municipalities, and Districts. Harter, Inauen, and Mosler (2020) opined that stakeholders stand for both the vulnerability and strength of CLTS in any community there are found operating.

The authors included that there is a vulnerability among people in community personalities and willingness to motivate and cause change and enhance strength not only concerning their mental capacity to promote but also in terms of their determination to inspire each other's behaviour that can lead to improving the wellbeing of community members and in general strengthening the culture of self-help and self-reliance. The continuous evolution of thoughts among members is argued, as is most likely to be done where there have been real changes regarding attitudes, which in turn focuses on the capacity of the moment of triggering or ignition in the implementation process (Medvedeva, 2012).

Randler et al (2017) opined that females are more often affected by their emotions, pity and disgust than their male counterparts, but disgust sensitivity in most cases is associated with people's ages. Such views are reinforced by results from the case of PLAN Bangladesh, which reported that adolescent girls are often part of the proponents with much enthusiasm regarding improved sanitation as a result of the shame and disgust that they go through frequently at that stage (Montgomery & Elimelech, 2007). Furthermore, other research revealed that the challenge is more often than not, the transformation is a change of attitudes and a campaign to change habits initiated from the onset, thus, in most situations, the interest is there but eventually fades off once the facilitators withdraw. Hence, the community members over time fall back into their former habits. For instance, Anderson (2007) shows that one in every four households returned to open defecation after initially embracing it. The author emphasizes the paramountcy of regular monitoring and orientation, acknowledging that behaviour change does not happen instantly.

After years of experience, most practitioners now realized the need to build a toilet and to ensure that it will be sustainable. The stool may be solid technically, but social change does not naturally follow (Katukiza et al, 2010). This acknowledgment prompted a movement toward education and

awareness promotion through a strategy called Participatory Hygiene and Sanitation Transformation (PHAST) and then when behavioural improvement did not yet occur CLTS supplemented this discursive approach as a suburban district driven method (Mwanga et al, 2015). CLTS is based on the assumption that a community-led approach can result in behavioural improvement that is efficient in terms of lavatory maintenance and use. Nevertheless, both technical and societal concerns need to be taken into account when determining if the rapid action and improvement in attitude accomplished by CLTS are achievable (Institute of Development Studies, 2016; Kar & Milward, 2011; Kar & Pasteur, 2005; Sah & Negussie, 2009; Zuin et al, 2019).

2.3 CHALLENGES TO SUSTAINABLE COMMUNITY-LED TOTAL SANITATION

Challenges may arise because of the reversion to open defecation by a community. When this happens, the community will have to reapply to become open defecation-free again. The relevant dynamics in rural settings explaining such happenings include social as well as technological and industrial systems. The social dynamics involves structural frameworks to tackle environmental problems, hygiene strategies and attitudes, environment, employment, moral feelings and cultural traditions, power dynamics, leadership, social structure, social history and connections with outside actors including NGOs and government operations present a mountainous task to Community-Led Total Healthcare (Pickering, Djebbari, Lopez, Coulibaly & Alzua, 2015). Latrine layout and maintaining the cleanliness and functionality of communal toilets are dependent upon periodic emptying of fecal sludge and cooperation between users of communal toilets. Trash disposal into latrines can block the outflow pipes, rendering the toilets non-functional (Alam et al, 2017).

Mara and Evans (2018) opined that sanitation initiatives may be formulated as a way of changing some of those processes and developing new ones to eliminate the practice of open defecation. But even if the initiatives are productive, the new paradigm may not be excluded from new challenges and the later stages that pose challenges. Persistent drought might bring problems regarding water availability in communities (Mehta, 2010).

2.4 THE SOCIAL-ENVIRONMENT-TECHNOLOGICAL INTERACTIONS OF CLTS.

The dynamic framework is described as a trend of sophistication and involvement perceived in behaviour over time in the social setting of the technological and environmental mechanisms which eventually lead to specific routes (Leach, Scoones & Stirling 2010). Figure 1 captures some of the system characteristics within a CLTS framework.

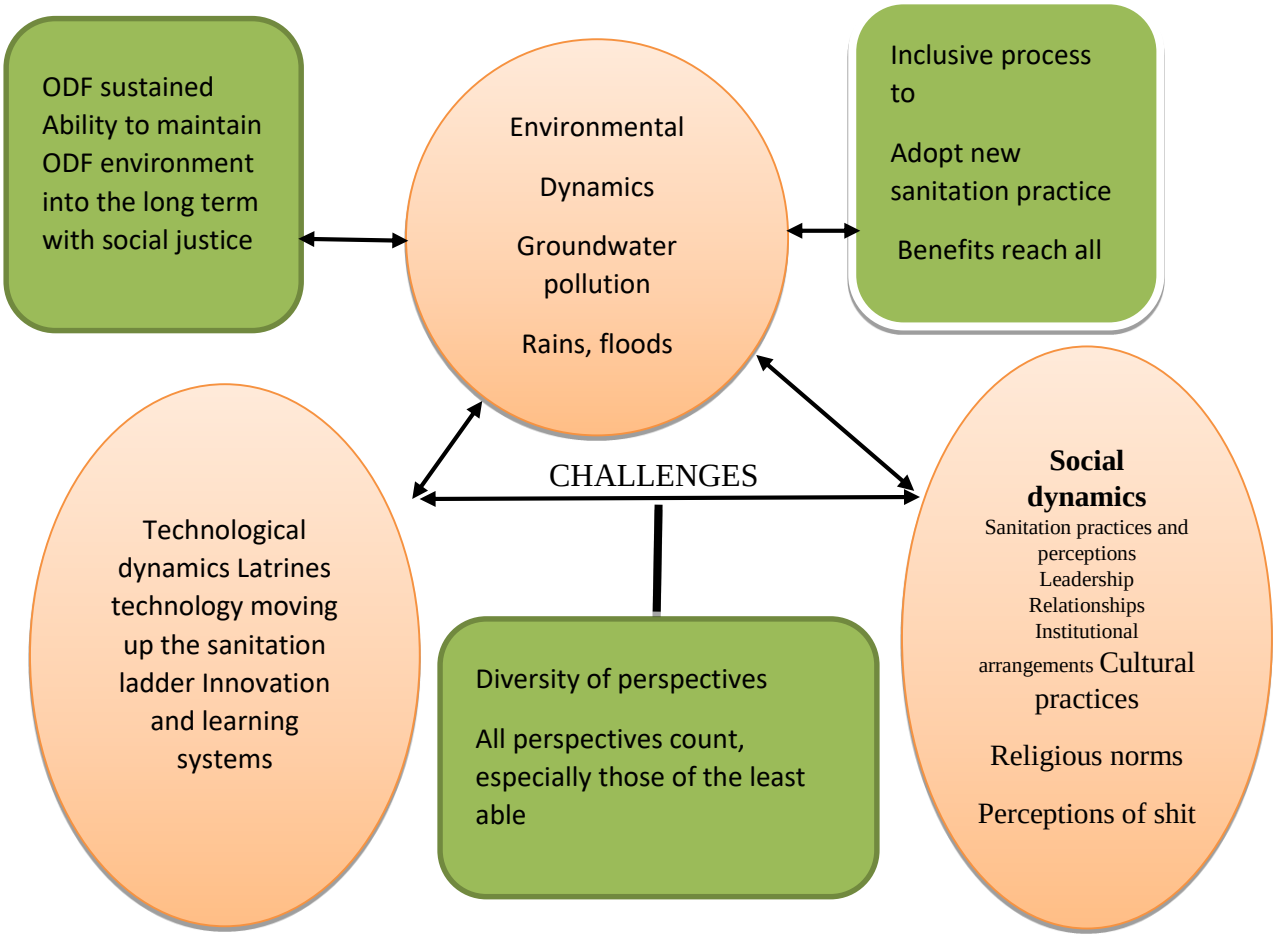


Figure 1: The Social-Environment-Technological Interactions of CLTS.

Source: Adapted from Mehta (2010)

The green squares portray the concept of sustainability. This involves ensuring that ODF climate, as well as that of social equality with social inclusion in the processes, advantages, and considerations of different views, are paramount. The bands reflect some of the social, technological, and economic dimensions that form the method in question. These interactive dimensions will influence the stabilization of sanitation across the whole system, from the original scope interrupted by the initiatives to the post-intervention phase, subject to new elements which threaten feasibility (Katukiza et al., 2012; Günter Langergraber & Muellegger, 2005; Miletto & Connor, 2015; Zhou et al., 2018).

2.5 ENVIRONMENTAL FACTORS INFLUENCING CLTS

Understanding what influences people's behaviuor to act in a particular way does not only depend on religious and cultural reasons but also, climate conditions such as rainfall, storms, water quality, soil composition and local resource supply. Other factors include sparse vegetation cover (and hence few places to hide when defecating), easily dug soil that is not prone to collapsing, low groundwater tables, among others. However, ecological issues that are often overlooked include drainage patterns in the area and the opportunities for solid waste disposal (Harter, Lilje & Mosler 2019). For instance, it is realized in Haryana in India that the so-called “pucca” (permanent) toilets are harmful to the environment than other methods such as “Kacha” (temporary) toilets. This is because the waste is not safely contained and instead allowed to flow into the village drains. But such toilets are prestigious and more coveted than temporary and makeshift structures (Nunbogu, Harter & Mosler, 2019).

Furthermore, the Climatic condition is the main facilitator of social-technical and behavioural change in most communities. For example, subzero temperatures and cold winds in China's Shaanxi province are reducing the interest to defecate in areas that are not close to their homes which has caused a whole lot of problems including the rise of contagions.

The emergence and transmission routes of causative organisms of diseases and their vectors are related to climatic conditions which are important aspects of ecological system dynamics. In addition to the outbreak of diarrhea normally caused by bacteria entering the intestinal tract, diseases such as cholera (Vibro cholera), typhoid (Salmonelatyphi) and trachoma (Chlamydia trachomatis are closely linked to many community members environments and health behaviours (Ashbolt, 2004; Odagiri et al., 2016; Rebaudet, Sudre, Faucher & Piarroux 2013).

2.6 SOCIAL FACTORS INFLUENCING CLTS

This section discusses the social factors affecting the future facilitation of CLTS. In a survey on how standards control conduct in rural India, it was reported that in most cultures the collective amongst the many overrides the person in the social situations (Wilbur & Jones, 2014). The norms and ethics of a society can have a profound impact on the actions of a person. Literature abound confirmed that CLTS points to be a very key factor regarding areas of residence which gives information on how likely positive action is brought about(Wilbur & Jones, 2014). And this works is in line with sociocultural characteristics that deal with people in small groups, homogenous mixtures of different ethnicities, cultures and many other differences. In general, the promotion of CLTS is more complicated in circumstances of deprivation and social differences as a case study carried out by PLAN Bangladesh shows (Wilbur & Jones, 2014).

Because the viability of CLTS strategy is becoming fundamental, cultural and religious standards of practice are important. Since the method focuses solely on inducing involuntary behavioural change, it is important to be mindful of how existing attitudes and norms, in specific ethnic and religious principles and activities, are couched around. A classic example is a comprehensive analysis of knowledge and practices about sanitation in some parts of Southern India. It was observed that most villagers who wholeheartedly embraced open defecation as an ancient tradition, did not bear a brand that many even deemed as a public activity (Noy & Kelly, 2009). People in the Masai Mara believe that people do not defecate at all, which prevents attempts to address open defecation at that level. Meanwhile in Nigeria defecating under buildings is always considered inappropriate by certain communities, hence citizens then get into the open instead to engage in open defecation (Bawa & Ziyok, 2013; Ogunjobi et al, 2013; Oko-Williams et al, 2011; Sawyerr & Adepoju, 2019). In Africa and most continents that take into consideration, religious beliefs and spirituality, behavior change is very crucial in sustainability. Sometimes there is the need for the parties involved to get an understanding of the methods used and develop concerns of their expectations (Lucchetti et al, 2012; Tetteh & Faulkner, 2016; Van Der Walt & De Klerk, 2014).

2.7 TECHNOLOGICAL ISSUES IN CLTS

The CLTS system does not accept the pre-designed sanitary latrine facilities. Enablers also do not make clear technical preferences among rural residents but seek to gain a drive in the building of their facilities using locally adapted technology which poses a whole lot of threats to the individuals involved. Hence, the innovation that arises must take into account a greater degree of the existence and quality of construction materials in the direct area, their accessibility, the population expertise, skills, the presence of masonry practices and distribution of power within

that particular group (Ficek & Novotný, 2019). The essence of implementation of the innovation is always staggered and incremental and the concept is seen as a sanitation ladder. The question is really what problems and opportunities have been found to promote the development of the ladder of sanitation (Foundation & CLTS Fdn., 2012). While a phased method is perhaps the most appropriate in terms of traditional needs, knowledge and resource limitations, moderate forms that reflect biological consideration for adjacent or downstream populations such as starching fecal matter in water bodies. Nepal has a growing understanding of the cost of implementing sanitary latrine facilities. It however suggests that the costs are expended together, insanitary and unsafe circumstances are often enabled to prevail (Foundation & CLTS Fdn., 2012).

Modest pit latrines, more often than not, breakdown as a result of the occurrence of floods. But poor financial situation causes them not to rebuild. There is a need for implementation and use of the ladder approach to address the issue of sustainability of sanitation. Hence, it is important to know the long-term benefits regarding the implementation of these technologies. The issue of breaking the cycle of disease transmission as a result of contamination by pathogens accumulated as a result of fecal matter is also a positive aspect of this implementation (Gordon & Martyn, 1997).

2.8 CONCEPTS OF COLLABORATION

Collaboration has been related to individuals wishing to make available their way of planning and decision-making policies. The most important is their ability to express part or all of the definition, design and construction techniques, execution and surveillance as well as analysis of their interventions without the intervention of external contacts (Ansell & Gash, 2008; Healey, 2003; Simatupang & Sridharan, 2002; Voogt et al, 2015). Public cooperation in initiatives is important

because it strengthens grassroots growth collaborations which are key to sustainable development (Foundation & CLTS Fdn., 2012).

Group engagement is a mechanism through which residents participate in response to social issues, share their views on the policies that affect them and take ownership of improvements in their residential neighborhood (Healey, 2003). Biodiversity Support Program (2000) described community collaboration as a system of cooperation whereby individuals, families, or communities assume responsibility for their wellness and grow the capacity to relate to the development of the society they live in. The partnership in communities refers to a form of the active mechanism by which the recipients control the management and implementation of community-building projects rather than focusing on the small resources available. Collaboration is described as the framework of the construction process (Carroll & Buchholtz, 2012).

Community collaboration includes ongoing dialogue among key stakeholder groups, project partners and local government. This cannot happen just because it takes time to let people openly express their thoughts. They should be present during the project process and there should be at least an avenue for feedback from stakeholders at some point (World Bank, 2004). Reasons for the activity of the method for group cooperation are scarce, but the research available suggests that practitioners might be over-optimistic and cynical about the advantages of the method (Aubrey, 2009).

2.9 THE STAKEHOLDER CONCEPT

The participation of stakeholders in a community is crucial to the success of a community effort (Miles, 2017). There are typically multiple stakeholders in a project setting and that the degree of control will be differentiated considerably. The involvement of stakeholders will take place in

various parts of the project process and at distinct classes of the vicinity taking several forms (Guimarães, Malheiros & Marques, 2016). Both stages and processes will vary from input participation, project predetermination, knowledge exchange, collaboration, decision making, cooperation and empowerment along a cycle. Engagement of the stakeholders and decision-makers is away as well as a goal. In a way, it is a mechanism in which individuals, as well as groups, participate and cooperate in the production of the project as a goal. It is located where the society struggling from the scarcity of a concrete project for growth ends (Harvey, Mukanga & Goring, 2016).

The role of stakeholders is potentially more critical than ever, considering the world's dynamic existence (Laitinen, Antikainen, Hukka & Katko, 2019). Any social problem, be it prosperity, poor academic results, environmental issues, issues of race, extremism, and others affect various individuals, community organizations and the mutuality concerning working together, which tends to explain the fact that no one is in total control (Prüss-Üstün, Bos, Gore & Bartram, 2008). Besides, it needs a representational approach from all stakeholders to recognize and address a society's afflicted issue. It is important to note that consideration should be paid to the desires and needs of the stakeholders in terms of achieving the general welfare and accomplish the project goals (Whittington, Jeuland, Barker & Yuen 2012). People participate in what they feel like as part of and enjoy what they help create. This is important to involve residents and localized groups when it comes to creating a sense of pride in making decisions. Hence stakeholders should be actively engaged in the designation of the project to help address what belongs to them and also to bring forth a sense of ownership. Stakeholders possess the ability to control the results of a particular project (Joseph, 2006).

It has been questioned whether local and traditional knowledge has a role to play in today's rapidly changing world (United Nations Development Programme, 2016). Also challenged was the belief that local involvement necessarily increases the validity of the decisions. Marginalized citizens may lack the capacity to participate entirely such that decisions taken in participatory processes can become more skewed towards the implementation of established power structures than decisions taken by duly elected and accountable bodies (Harter et al, 2018). In Uganda, for instance, WSP (2011) found that the creation of education initiatives involving local stakeholders frequently consisted of sporadic information collection sessions conducted at schools or headquarters in the district. While commendable, these efforts are not enough. The participation of local stakeholders is most important when arranged properly. The participation of key stakeholders was found to be the single most important factor in determining project outcomes in a survey of ecosystem management in Sri Lanka and India (Samarakoon & Rowan, 2008). In Ghana, the old Fadama group was not interested in the planning and results of the Korle Lagoon Ecological Restoration Project (KLERP) and hence opposed as a response to the alleged violation of their institutional right (Frederick, 2009). A project is said to be performed effectively once it has fulfilled the needs and desires of the stakeholders. Even if it meets the time, expenditure and extent requirement, if stakeholders' needs and aspirations are not encountered, it will not be considered an achievement (Water and Sanitation Programme & UNICEF, 2015).

Antwi-Agyei et al, (2017) show that the challenge of inadequate stakeholder participation affects large infrastructure developments of various interest groups in many communities. The motivation behind their actions during the project design, implementation and completion up to the project

life cycle are dampened (Nunbogu et al, 2019). Besides, the needs of the stakeholders are often different hence disputes arise. The priorities, structure, interaction dynamics and statements of the stakeholders are specific and complex at various phases of any group project and need to be discussed before schematic design and execution (Crocker, 2015). Stakeholders submit tactics to manipulate project policy-making to meet particular entrenched interests. Comprehending these approaches is useful for program sustainability in predicting the possible actions of stakeholders (Broman & Robèrt, 2017). Hence, listening to and reacting to stakeholder expectations and issues is a mechanism that helps the project optimize personal insight from stakeholders and mitigate any adverse or harmful effects (McConville et al, 2014).

Garvare and Johansson (2010) bringing the definition of stakeholders into the field of project sustainability, project stakeholder management can be regarded as an existing area within contemporary strategic planning standards. Sometimes, however, the project owner fails to take into account the view of other stakeholders and this will draw animosity against the project. That is why a large number of concerns both uniquely and unfavorably, will be impacted across the whole cycle of the construction project (Zou & Zhang, 2009). According to Zou and Zhang, (2009), representatives of these interests are referred to as the project's stakeholders.

Although several research teams have talked about the importance of good communication in striking the right balance between stakeholder administrators and project interactions, the importance of mutual trust between administration and the grassroots or a bottom-up strategy to stakeholder engagement (Guimarães et al, 2016) is the most important approach for handling project stakeholders.

Additional research by Sveiby (2001) is based on stakeholder evaluation which considers it either as a method or as a strategy to facilitate decision making and formulating strategies in group project development. Olander and Landin (2008) inform the public that the review framework should assess the degree to which external stakeholders' needs and issues can be addressed as well as evaluate the possible implications. Therefore, the value of accurately determining who the members are, involve appropriate recognition of stakeholder interests and their effect on the project as well.

Yang, Shen and Ho (2009) assert that recent studies inform the general public that alternative approaches regarding stakeholder analysis are given in previous research on the definition, characterization and evaluation of stakeholders but have nothing to do with the provision of information (Miles, 2017). Thus, stakeholder communities are defined and categorized in various ways in the large sense of stakeholder theory.

2.10 STAKEHOLDER COLLABORATION IN COMMUNITY-LED TOTAL SANITATION

Recognition of stakeholders is commonly seen as the first step in stakeholder analysis in which description is regarded as an essential element of the verification process (Miles, 2017). Enhancing this figure and access to adequate urban sanitation was excruciatingly slow and effective only sporadically in terms of the long feasibility of the sanitation systems being introduced. Describing the problem as a failure of provision-driven and costly sanitation methods. These did not create demands for effective household services but generated services that were viable beyond the support and solutions that are obtained from external sources (Hubbard et al., 2011). Top-social democratic strategies to sanitation preparation now give way to cooperative strategies that focus on waste sources, that is societies as a key factor in the cycle of sanitation planning (Strauss, 2000).

It is argued that involving front-end users in choice-making is a critical factor in boosting sanitation demand, creating priorities and transparency amongst networks to consumers and maintaining a commitment in the long term to keep the systems in place as far as sanitation is a concerned (Guenter-Langergraber, 2013). This shift in the sanitation model is more generally representative of the step for community-driven growth in development services.

2.10.1 Planning Frameworks

There have been several support mechanisms and structures developed to assist in sanitation planning although methods differ in their focus on top-down or bottom-up management strategies, there is increasing agreement that stakeholder input needs to be included. Another such structure is the open preparation of sanitation schemes proposed by Tilmans et al, (2015) and focused on the method of open competitive impact analysis (OCCA) developed by WRS Uppsala AB (WHO, 2014). This review process is carried out in five steps:

1. Recognition of the problem
2. The recognition of constraints
3. The necessity of the terminology
4. Review of potential solutions
5. The option of the most suitable solution

Where the first step involves the recognition of the groups of interested parties and their position. Sanitation is a matter which needs bridge-disciplinary work within departments within the district because of its diverse nature. This process may not occur on its own and recognizing stakeholders and including them in the development process is a very prudent way to accomplish the required bridge-disciplinary work inside their locations. The process of recognition of problems can then

be carried out using participatory approaches such as Participatory Hygiene and Transformation of sanitation (PHAST). Identifying the parameters should not only identify the technical limitations of the hygiene system but also significantly restricting cultural-economic trends, natural environments and political situations. Following the first two phases, developers and stakeholders will be able to define the criteria requirements for the sanitation system which will allow specification that will help the sanitation system to be fulfilled. The needs to be detailed and added relate to the safety of health, water, natural resources, cost, technological efficiency, user satisfaction and management issues. Then the study of possible alternatives should be based on how they suit possible innovations. At least three alternatives for determining and choosing the most suitable approach should be given to the stakeholders. The Household Centered Environmental Sanitation (HCES) is also another prudent way of solving sanitation processes (Lüthi, McConville & Kvarnström, 2010). HCES acknowledges the significance of the urban environment monitoring zones and various stakeholder domains. The 10-step HCES method fits the pattern of a program cycle, from the discovery, semi-planning and thinking of execution and tracking (Lüthi et al, 2010).

More lately, the specialist community of the international water association integrated many of these insights into the development of its structure for the study and selection of suitable sanitation schemes (Moe & Rheingans, 2006). Three sections have been described concerning the framework.

1. Context identification
2. Technical options identifier
3. Options feasibility determination

Context analysis acknowledges that there are different realms in an area with actors in each realm having different sanitation goals (Moe & Rheingans, 2006).

The property can be subdivided into families, neighborhoods, countries, towns and beyond. The scope within each of the domains must involve a range of priorities, external drivers and organizational skills that will be discussed with the stakeholders through some kind of collaborative process. The second phase strongly talks about a set of practical alternatives that are identified and described as per the appropriate treatment ability and corporate level. A broad list of types of sanitation systems which include both on-site and consolidated systems which may be used at this point (Andersson, Dickin & Rosemarin, 2016; Prüss-üstün et al, 2002; SDG, 2018; Water and Sanitation Programme & UNICEF, 2015). The aim is to look more at the features service, servicing and simple management specifications. Finally, the main step in the process is to pick a program based on its ability to meet stakeholder's established aims and management power. The main questions at this point are to decide if the management criteria suit the ability of the community. The big question is, essentially, does the program work? There is a necessity that various technological solutions can be applied to different dimensions inside the city to match the needs and administrative expectations of anyone (Moe & Rheingans, 2006). Table 2.1 presents steps in the framework of the plan concerning the actions required.

Table: 2.1 Common Steps in the Planning Frameworks and Specific Recommended Actions Within Each Framework

Common step	Open plan	HCES	IWA Sanitation 21
Recognition of Planning Domains	Identification of affected stakeholders	Differentiate zones within the urban environment	Identify key actors in each decision-making domain

		Problems should be solved close to their source	
Analysis of Objectives/Interests	Stakeholder collaboration in problem identification Terms of Requirement	Stakeholder collaboration in the determination of needs and priorities	Identify the interests of key groups
Analysis of External Drivers	Identification of Boundary conditions	Assessment of the current situation Enabling environment	Understand external factors
Analysis of Technical Options	Define sanitation System boundaries Terms of Requirement	Define system boundaries and current capacities Identify a wider range of options	Analysis of existing systems and new systems
Assessment of Management Requirements	Terms of Requirement	Assess current capacities and responsibilities of organizations Need to ensure support from	Identify the capacities within each domain for implementation and long-term management of a

		Municipalities	system Identify the management requirements for the technical systems
Critical Assessment of Feasibility	Choice of most Appropriate solution based on Terms on Requirement (Stakeholder collaboration)	Evaluation of the feasibility of Service combinations (Stakeholder collaboration)	Assess whether systems meet the objectives in each domain Assess whether systems can be managed in each domain

Source: Moe & Rheingans, 2006

The elements in the above table are compared with the following:

1. Identification of the presence of various domains in the city
2. Examination of the priorities driving demand for the sanitation of the priorities and services for stakeholders throughout the realms
3. Analysis of existing drivers and context influencing actions in each realm
4. Review of practical alternatives in regards to scope and criteria results
5. Review of management specifications for proposed practical alternatives
6. Critical evaluation of the suitability of the proposed solution

2.10.2. Importance of Stakeholder Participation in Development Projects.

Involvement leads to accurate and stronger decisions about initiatives by building a tactile faculty of group ownership. It has also been discovered that it is necessary to introduce local ownership which is accomplished by involvement in projects to ensure sustainability. Participation has been said to lead to learning which is a source for behavioural improvement. A calculation of the gains can be seen as stakeholders engage in the projects. It will enable the development of their capacities and in the future, they will be able to separate their tasks (Reed, 2008). This in effect, makes for productivity and sustainability. Kumar, Chaubal, Domb and Majeti, (2002) identified a range of advantages of participation in progress. The authors note that involvement ensures productivity as individuals form a pool of resources to achieve shared objectives. They further indicated that in the case of people taking part, initiatives are concluded right and on schedule. More to the point they may be needed to carry out M&E which in the end helps keep track of such projects that have been implemented (Kumar et al, 2002).

Power is also enhanced by granting stakeholders a right to project preparation and design. Botchway (2001), supports this, as people engage and understand the value of a project, they won't necessarily rely on outside assistance to meet their demands. They are going to start their attempts to solve their problems and that is successful in reducing the syndrome of dependency. Also, they will marshal their minds to solve their issues. Stakeholder engagement is essential to guarantee the sustainability of policies that will bring about development since it is in correspondence to building and motivating community capacity (Botchway, 2001). Beneficiary's involvement in projects means improved efficiency, receivers are better at recognizing, executing, tracking and reviewing projects.

2.10.3. Stakeholder Collaboration in Project Initiation.

The science of project initiation is one of the early phases of when a task is to be taken into consideration. It is in this stage that ideas are generated and goals are set to carry out feasible projects. Stakeholder inclusion and contribution are also considered in this stage (International Institute for Environment and Development, 2008). Needs at this stage are prioritized by stakeholders and decision-makers through rigorous analysis and stakeholder meetings (Ruiters & Matji, 2015). These analyses made are considered and examined later on after discussions where solutions are suggested to possibly attempt the problem at hand. Objective and critical analysis of the problems is done afterward and this is directed towards explaining the scope and magnitude of troubles and certain circumstances at that moment. According to Summers (1986), for a community to be able to bring a vision into reality, all levels of thinking must come together during the planning process and identify the needs of the community for development. There are also backup plans to address the relevance of the problem. Other matters to consider during this stage are the identification and prioritization of the problems and assessing the pressing needs of beneficiaries (Summers, 1986). Facts found at the early stage go a long way to bring value to the conclusions of research work. Guidelines and principles are also key factors to consider in this stage (Coventry, 2003). There are, however, some shortfalls concerning this stage of a project. Sometimes there may be delays in execution, procedures and procedural changes as well as failures in which the members of the community must identify the needs that have been assessed and prioritized.

2.10.4. Stakeholder Collaboration in Provision and Project Performance.

At this stage of every project, resource mobilization plan, budgets, work plans and evaluation of plans are discussed (Summers, 1986). At the community level, committees are formed to oversee

the implementation of projects which promote growth in communities (Summers, 1986). This procedure accomplishes the required results concerning projects. Participation in projects by both actors is a very important factor in the success of a project. It promotes accountability, and equality of decision-making during the process. All these are however achievable when communication is effective (Husain, 2013). This gives them a feeling of controlling the process.

In African countries, the involvement in community development is steered by key planning and immerse dependency to ensure sustainability in the long term. According to Preston, Waugh, Larkins and Taylor, (2010), international organizations coined the term community participation when they were trying to better a lot of developing countries in the area of health, social development and economics. The practitioners of the concept realize that sustainable development in sanitation and social development was dependent on empowerment, participation and collective action of the people. Therefore, Stakeholder participation is very key in taking decisions from every aspect of the implementation process (Harvey et al, 2016).

2.10.5. Stakeholder Collaboration in Implementation and Task Execution.

At this stage, all that has been produced is channeled to our beneficiaries which is a matter of participation and influence by responsible stakeholders. All those who benefit are allowed to give efforts concerning any available task. This effort could be in cash or kind and cash is deposited in special accounts concerning the project while other forms of effort such as labour is needed right on the field (Harvey et al, 2016). Szántó et al., (2012) analyzed the fact that efforts donated go a long way to aid the progress of a project. However, it also limits dependency on certain vital aspects and not change the choice in a long way and properly assess the actual needs of a person who is benefiting. A typical example is the water project implementation of Indonesia during the

80s and 90s. Stakeholder collaboration is heavily reliant on trust and transparency regarding the individuals involved in the situation (Frederick, 2009).

Many types of research have proved that beneficiaries' involvement is very important, which is sometimes reflected as a means of sustainability for the project. There is, therefore, the need for community participation in project implementation (WSP, 2011). Success was achieved concerning this procedure in some Honduran projects. The effect has been felt in the wastewater project and bridge projects which on the larger-scale influences capacity building (Water and Sanitation Programme & UNICEF, 2015). Available literature indicates that donation of cash is one effective tool to facilitate project success. Other studies, however, establish that cash and kindness are very valuable and a very important factor of sustainability (Moe & Rheingans, 2006).

2.11. THEORETICAL FRAMEWORK

The study employs four theories to examine the dynamic nature of the people in the study area. These are detailed in the following subsections:

2.11.1 Systems Theory

The systems theory was coined by a man named Ludwig von Bertalanffy in the 1940s to be used in the area of biological science and was later introduced in different subjects of study, leading to the modification of the theory into a generalized one. The theory posits that all systems work hand in hand and argues that when one aspect is causing a positive change, the change affects the whole and vice versa. The theory embodies all characteristics of a system and it is designed to fit various situations, and when applied to projects, adds more value to other elements of the project (Raoprasert & Islam, 2010).

2.11.2 Operant Conditioning Theory

The Operant conditioning theory also called the Operant learning theory (OPT) was developed by Burrhus Frederick Skinner who was a behavioural psychologist. This hypothesis is a behavioural

theory that posits that behaviour is formed or changed through reinforcement and punishment. Behaviour theorists argue that learning experiences that take place during a person's life are the sources of behavioral changes. Learning is explained as a relative course with an effect on the way people change their behavior through experience (Aparicio, Bacao & Oliveira, 2016). According to behavioral theorists, by modifying existing learning opportunities or by creating fresh ones, the individual's behavior can be modified. To them, only observable behaviour is useful in understanding learning and the growth of an individual. Some premises of this theory are:

- The organism is neutral and passive unless it is provoked by environmental stimuli to which it will react;
- Whatever character of behaviour can be learned, can be changed when conditions are varied and can be extinguished through punishment.
- The complex behaviour pattern is established through the additive process and therefore quantitative.

Behavioural conditioning is a reimbursement system in which the behavioural consequences contribute to changes in the chances that the behaviour will occur (Aparicio et al, 2016). When behaviour has a negative consequence, it is improbable that the behaviour will be duplicated in the future. Nevertheless, if a behaviour brings about a consequence that the organism finds pleasant, then that conduct is likely to be replicated in the future. Skinner posits that the likeliness of future behavior is influenced by the results of past conduct. Reinforcement and punishment are the two main concepts in this hypothesis (Dreibelbis et al., 2013). Reinforcement concerns any event that increases the chance of the happening of behaviour that comes before it (Muralidharan & Pathak, 2019). It is also, a consequence that increases the chance that a behaviour will occur (Dreibelbis et al, 2013). The theory highlights two kinds of reinforcement namely positive and negative

reinforcement. Positive reinforcements are rewards granted to increase the recurrence of a particular behaviour. Examples include praise, applauds, gifts, money, encouragement, recognition and acknowledgment. Negative Reinforcement, on the other hand, is the removal of something unpleasant with the purpose of strengthening a behaviour. For example, if a rat escapes from electric shock by jumping a barrel, that jumping response will recur (Moita, Rosis, Zhou, LeDoux & Blair 2003).

The penalty is the introduction of an unwanted or unpleasant stimulus to diminish the chance of that behaviour for recurring. The burden of punishment is to dampen or eliminate a behaviour. There are two kinds of punishment, namely physical and psychological punishment. Physical punishment includes canning a child for wrongdoings, to be slapped by your father for indiscipline, a criminal given an electric shock to confess his crimes, to be withdrawn from a group, being grounded by your parents, etc. Psychological punishment includes verbal insults, being shamed and disgusted upon, discouraging someone, or using demoralizing words on a mortal. Skinner believes that all human behavior can ultimately be understood as learned responses to issues and that behavior is selected based on their consequence (Keltner et al., 2003). This theory suggests that conduct that generates a positive result is likely to be replicated again but a behavior that creates the detrimental effect will be discouraged (Keltner et al, 2003).

2.11.3 Communitarian Theory

Communitarianism is a philosophy that underlines the relationship between the participant and the environment in which they belong (Encyclopedia of communication theory, 2010). The basic postulation of Communitarian theory is that individuality is a product of community relationships rather than only individual traits (Encyclopedia of Communication theory, 2010). Communitarianism is a 20thcentury term. It was used to develop an understanding of a group of people who lived with a different lifestyle that was common. The terminology attained a great

height in the 80s and mentions can be found in most books of theological perspective (O'Brien & David, 2014).

According to Moita et al, (2003) communitarianism is a collection of ideas based on social problems, moral education and common values. It is based on the fact that people have similar obligations towards each other and that a peaceful and stable system depends on this joint responsibility. The communitarian theory argues that the community is a place where people care about one another and that one of the most important communities to which we belong is our families (Moita et al, 2003). Encyclopedia of communication theory (2010) notes that our families and communities are the ground-level generators and preservers of values and ethical systems. Communitarians believe that we all learn moral values through the communities to which we belong and as humans, we depend on each other for the formation of our personalities. The central tenet of the communitarian theory is belonging. That is the relevance of the relationship between a human being and his environment.

So the central principle of the socialists includes consideration for everyone and the commons we share (Sørensen, 2007). Group theorists understand the need to defend themselves as societies do not survive in the absence of individuals to promote them. Thus, to claim protective ownership of our identities is to claim ownership of the communities that constitute each of us. The theory believes that the community bears the responsibility of each individual in society (Sørensen, 2007). Communitarian theorists contend that efforts to address local development issues strengthens the social bond between community members, improve responsibility and rejuvenate leadership including institutions at the local level and motivate society members for self-help community development (Nuttin, 2014).

This theory views community reconstruction as a social and moral activity by improving partnerships, promoting engagement mechanisms, creating avenues for group self-help, cultivating feelings of empowerment and solidarity in a domain different from politics and the market. Moral decisions are better taken at the level of the society instead of by higher governmental bodies per the theory (Atwater & Carmeli, 2009). The Communitarian theory provides an opportunity for people to concentrate on the ideals of cooperation and participation to implement self-help development activities to address communal challenges (Swain & Varghese, 2009). Such a concerted effort often results in the discovery of innovations in social organizations, political processes, economic systems, or technological designs (Allison, 2002). Research shows that encouraging members of a community to provide mutual services through their efforts and the possible results are a high level of satisfaction and the feeling of ownership among members in the development process and outcome (Shaw, 2008).

2.12 RELEVANCE OF THE THEORIES TO THE STUDY.

Firstly, the study applied the Operant conditioning theory (OPT) and its basic premises to the CLTS approach. The CLTS concept involves the use of shame and disgust to trigger collective action by community members to stop OD and reduces the health risk associated with diarrhea, dysentery, malaria and schistosomiasis. This method employs psychological punishment to change undesired behaviour and it is in line with the OPT which focuses on changing behaviour through punishment.

Besides, CLTS uses reinforcements (rewards) in the form of holding a ceremonial gathering to celebrate communities who have achieved ODF and encourage them to sustain the changed behaviour. Other rewards include issuing certificates and mounting signboards with ODF inscriptions on them. These are done to recognize and acknowledge the community for their proper sanitary behaviour achieved (i.e. ODF status). Thus, the OPT is relevant to the CLTS concept because they both concern using reinforcement and punishment to change undesired behaviour.

Secondly, the study applied the Communitarian theory because, within the CLTS approach, external funds for latrine constructions are not permissible rather the facilitators to draw attention to the community's capacity to address their problems using self-help mechanisms that exist within the community. This self-help mechanism is internal support systems community members come up with and these may include periodic target contribution schemes, credit for sanitation, or seed funds by community members.

Others may include some people (especially the youth) helping other households to construct their latrines; the better offs donating cash to the poor and giving land to the landless to construct toilets; cleaning up exercises within the community and even neighboring communities etc. The theory opines that efforts to address local development issues through participation strengthens the social bond among community members and motivates them for self-help community development. This argument is, therefore, consistent with the CLTS approach.

Again, the theory contends that participation does not only result in community self-help activities but also innovations in economic systems, technological designs among others. The CLTS approach empowers local people to innovate their latrine models. When the group is motivated each member attempts to create their model of toilets within the means and resources of the family. Those with innovative ideas in latrine models are also found, promoted and appreciated for their

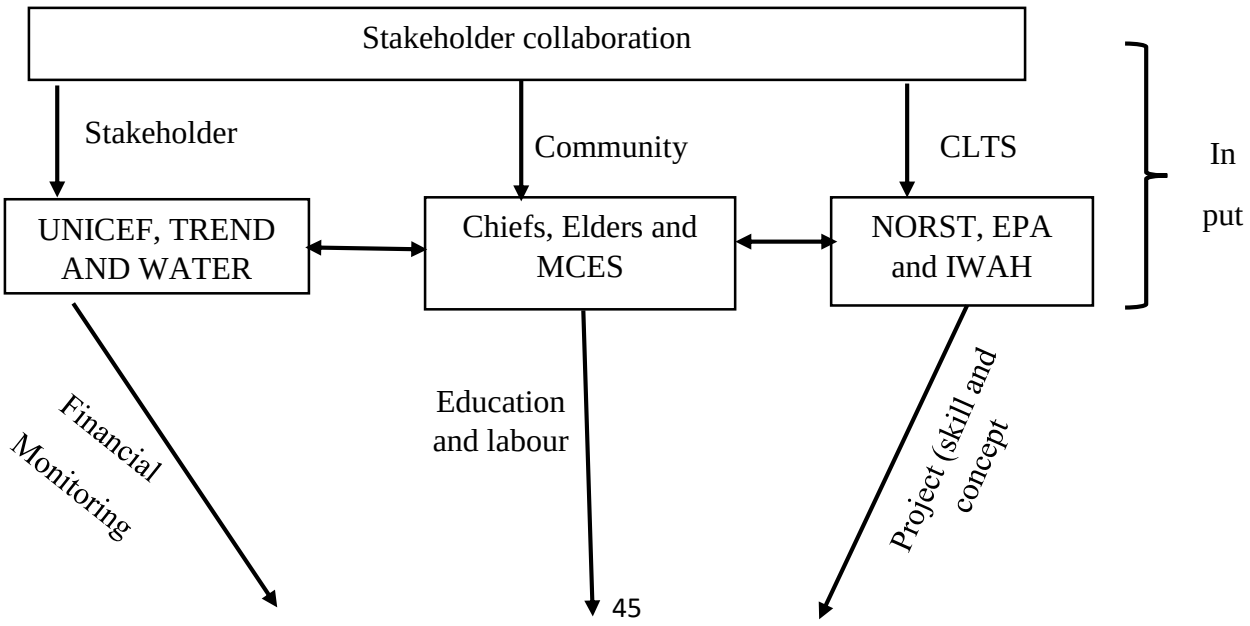
work. Such motivated individuals (also known as Rural Sanitation Engineers) add relevance to the development of low-cost models and to help others in the process of making lavatories in their respective locations. This innovative power of CLTS is in congruence with the communitarian theory assertion that focuses on the involvement of community results in innovations in technological designs.

Finally, the researchers applied the theory of structures as the theory integrates all primary materials and elements in the analysis and identification of various support mechanisms and frameworks intended to assist in planning processes and sustainability. Also, the theory incorporates various aspects and many other institutions and recipients for the implementation by donors. The relationships between these key stakeholders play an instrumental role in helping achieve the goals of the project. The participation of stakeholders is one quality that was ignored resulting in project failure. Hence the rise in participation by stakeholders will lead to the sound of the whole.

Besides, the systems theory is a structure that hires multiple main actors to examine and define group problems and is ideally applicable to circumstances whereby members in the network are seriously interacting and affecting each other. The communitarian theory contends and complements the efforts of the systems theory after holistically investigating and identifying the issue by attempting to address the issues, create or revitalizes local institutions and develop responsible local leadership. This assertion is consistent with the CLTS approach as it leads to the creation and reviving of local institutions such as active community groups (WATSANs) who act as sanitary inspectors monitoring progress towards ODF status. CLTS revives existing groups that have been lying dormant for a while.

2.13 CONCEPTUAL FRAMEWORK

Figure 2 is a schematic representation of the relevance of collaboration to community-led total sanitation and stakeholder management. The figure shows that the addition of many actors in the area of management and sustainability of the program is very key. Holistic approaches to strategize the involvement of both stakeholders at the primary and secondary level have been the norm to aid researchers and practitioners in recent times. Besides, for the sustainability of the CLTS system, it is important to involve those impacted by the social disruption of major projects including the local population in everyday lives. In addition to that, while there are different methods of stakeholder analysis, the project management environment lacks a personalized methodology for the local stakeholder in the community. Local group concept in stakeholder operations is ambiguous and it is defined by academics as a single body and not as many independent systems with their interests, concerns and their aims. The life cycle of the project is, therefore, dependant on the concerns of participants in the community.



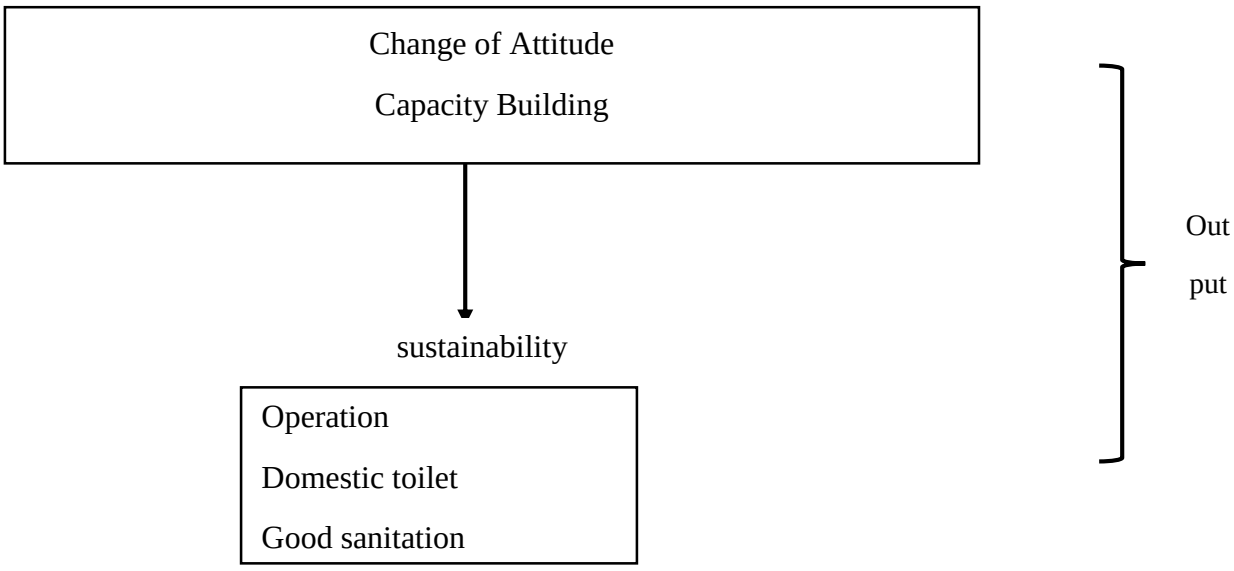


Figure 2: Conceptual Framework - Relevance of collaboration to community-led total sanitation and stakeholder management

Source: Authors construct (2019)

Sustainability can also act as a clear and efficient partnership for project implementers and recognizable stakeholders. Public representatives must be included in the decision-making process and they should be presented with critical details needed for successful decision making. Communication networks must be opened up to CLTS implementers and members of the local community to promote dialogue and consideration of alternative viewpoints to achieve some degree of contract on the goals to be followed to make the participation successful.

CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

Adopting the most suitable research methodology is very important to assure the soundness of research findings (Cresswell, 2003). This chapter of the thesis presents an in-depth description of the methodology used for the study The methodology describes the approach used by the researcher to collect and analyse data. More broadly, there are assertions that research methodology defines the domain within which a study can be framed (Jonker and Pennik, 2010).

3.2. RESEARCH AREA

The research was conducted in the Tamale Metropolis, Savelugu Municipality, and the Sagnarigu Municipality. Tamale Metropolis is one of the twenty (20) districts in the Northern Region of Ghana. Tamale is the administrative capital of both the Metropolis and the Northern Region and also doubles as the business center for the region. It has a population of about 233252 as of the 2010 population census. There is a total number of households of 219,971. The population living in urban localities is 80.08% which is higher than those living in rural localities (19.1%). Males constitute 49.7 percent and females represent 50.3 percent. About 63.3 percent of the population in the metropolis are economically active.

The Savelugu Municipal Assembly in the Northern Region of Ghana has Savelugu as its capital of the district. The population of this Municipality, according to the 2010 population census, was 139,283 with a household population of 138,221, having a growth rate of 3 percent with 48.5 percent being males and 51.5 percent females, and a land area of 1790.7 km2. Savelugu is an economically important route of Tamale-Bolgatanga highway and serves as the administrative and economic capital of the Savelugu-Nanton Municipality. Being an Agricultural hub itself and surrounded by towns and villages whose primary economic activity is Agriculture, it hosts the largest market in the district which serves as the main trade point for farmers in the district and other neighboring districts.

Sagnarigu Municipal is one of the districts carved from the Tamale Metropolitan Assembly, Sagnarigu Municipality was created in 2012. Its capital is Sagnarigu and it shares boundaries with the Savelugu Municipal to the North, Tamale Metropolis to the South and East, Tolon District to the West and Kumbungu District to the North-West. The population of the Municipality according

to the 2010 population and housing census stands at 148,099 with 74,886 males and 73,213 females and a household population of 146,291.

The 4th inter-district Open Defecation Free(ODF) league table(2018), a USAID-funded project (RING) revealed that Tamale scored the least points in the ODF league table for the 3rd successive time. Tamale's Neighbors; Savelugu and Sanarigu were ranked 22nd and 24th respectively in the ODF league table. It is against this backdrop that, the researcher is primarily concerned with collaboration amongst stakeholders especially as Tamale being the regional capital and hub for NGO activities and its surrounding districts in the Northern region of Ghana.

3.3. RESEARCH DESIGN

Research design is the set of logical steps that are taken to link the question(s) to data collection, analysis, and interpretation (Clarke & Dawson, 1999). Even though research designs that are employed in investigating social phenomena abound. The study adopted a case study design to explore the peculiar issue of stakeholder collaboration in Community-Led Total Sanitation (CLTS). Yin (1984) describes the case study as an empirical inquiry that investigates a contemporary phenomenon within its real-life context and uses multiple sources of evidence to arrive at conclusions. Because CLTS is currently taking place and the stakeholders were actively going about their duties, the case study was considered the best to explore the phenomenon. The case study design allows for the retention of holistic and meaningful characteristics of real-life events during an investigation (Yin 2003). Mitchell (1983) sees the case study as a detailed examination of an event (or series of related events) which the analyst believes exhibits the operation of some identified general theoretical principle. In this case, the concept of stakeholder

collaboration was the theoretical principle believed to be exhibited in the study communities and so sampling was purposive and based on information richness rather than typicality (Patton 2002).

For this reason, sampling was limited to only those actively participating in CLTS at the time.

3.4. MIXED METHOD APPROACH

This study used a combination of quantitative and qualitative techniques. The former is employed to collect data regarding quantitative variables which can be subjected to statistical analysis for a meaningful interpretation and understanding while qualitative techniques are used to meaningfully interpret and understand respondent's experiences and views about stakeholder collaboration in community-led total sanitation in Tamale, Savelugu, and Sagnarigu districts in the Northern Region. A mixed-methods are deemed appropriate for this research work because it brings a variety of data in the approach to answering a research question (Karami, Analoui, & Rowley, 2006; Scandura & Williams, 2000). The approach also adds strength to the credibility and reliability of the research because there may be quantitative elements that will be supported by the qualitative aspects of the study (Scandura &Willims, 2000).

3.5 CASE SELECTION AND SAMPLING

Sample size and study population

Malhortra and Peterson (2006) and Zikmund (2003) stated that the larger the sample size of the research, the more accurate the data generated but yet, sample sizes differ due to different circumstances. In this research, the sample size was determined by using Krejcie and Morgan's (1970) sample size determination formula and table. The targeted population in this research was obtained by collating the number of communities piloted for the study totaled their population

against the Krecie table to determine the sample size. This is possible because of the 2010 population and housing census. Based on the sample size table used, the sample size in this research will be 140. But Krejcie and Morgan, (1970) also has a formula for determining the sample size for any given population

Tamale, Savelugu, and Sagnarigu were selected for the study because of their performance on the ODF league table. Information on households who were actively practicing CLTS at the time of the study was obtained from Environmental Sanitation Officers. The researcher was able to sort them to the total number of households from each of three communities in other to draw a sample size for the study. Based on that combined number of household in all three study areas sum up to 1000. Having this, the study employed the Krejcie and Morgan(1970) formula was used to calculate the sample size as follows: Again, considering the Morgan et al., table, the researcher trace 1000 from the table to obtain a population of 278. Furthermore, by applying the formula, the researcher arrived at the number. This was done because the researcher wanted to confirmed the figure.

$S = X^2 NP(1-P)/d^2(N-1)+X^2P(1-P)$

S= required sample size

X^2=the table value of chi-square for 1 degree of freedom at the desired confidence level(3.841).

N=the population (1000)

P=the population proportion(assumed to be .50 since this would provide the maximum sample size

d = the degree of accuracy expressed as a proportion(.05) (Krejcie & Morgan,1970)

Substituting the relevant values in the formula gave 278 as the required sample size. Random sampling was used to select 278 households for the survey part of the data collection. However, the study also interviewed three(3) Environmental Officers and three(3) Assistant Environmental Officers as well as two(2) members of USAID as Key Informants (see table 3.1). Respondents were also selected for Focus Group Discussions based on their active participation in CLTS, the researcher took advantage of the already existing groups in the various district constituted by environmental officers. Thus, the researcher followed the district environmental officers at the various areas where a routine of the meeting of the CLTS programmes was held.

Sampling methods.

The district was stratified based on the CTLS table regarding performance. After the stratified sampling, one district was selected purposively from the top middle, and bottom in the CTLS table. In each of the districts communities that have been introduced to CTLS was identified the number of communities to be selected was based on the proportion to size. In each of the CTLS communities, a sample household that has been introduced was identified through the sample stratification. Data was collected from hundred direct beneficiaries (100) and forty (40) from indirect beneficiaries.

Purposive sampling was then employed. For instance, in Tamale Metropolitan, the group was comprised of 8 women and 4 men which sum up to 12 participants. A similar engagement was made in the Sagnarigu Municipal where the researcher and the environmental officers met a group of 12 at Jisonayilli consisting of 7 women and 5 men. Finally, in the Savelugu Municipal, the group was made up of 5 women and 5 men summing up to 10 participants. These participants were selected purposively by the researcher.

It is important to note that, the women's participation was enormous as far as the focus group discussion was concerned.

Table 3.1. Respondents by stakeholder group and study location

Communities	Savelugu	Sagnarigu	Tamale Metropolitan	Total
Number surveyed	74	80	124	278
Key Informants	2	2	4	8
Focus Group participants	10	12	12	34
Total	86	94	140	320

Source: Field Survey, (2019)

3.6. DATA COLLECTION METHODS

Both primary and secondary data were collected for the study. The semi-structured questionnaire, Focus Group Discussions (FGDs), and Key Informant Interviews (KIIs) were used to collect primary data. Respondents were assured of anonymity and confidentiality to enhance honest answers to questions. The questionnaire included both closed-ended and open-ended questions.

The most important elements of quality in qualitative research include the severity and dependability in the data analysis process. One way to achieve this is through transparency in the research process. Interview transcripts form a crucial part of qualitative research (Oliver, Serovich & Mason 2005; Witcher 2010). Transcription of interview recordings can be natural or unnatural. Natural transcription involves the verbatim reproduction of an interview with every utterance including stutters, pauses, mannerisms, and other nonverbal cues all captured. Denaturalize, on the other hand, is a transcription approach where non-standard accents are eliminated (Oliver et al, 2005).

To ensure the integrity of the data collected, denaturalized transcription was adopted. However, since the interviews were tape-recorded into computer-compatible formats, the files were kept and resorted to whenever the naturalism orientation was sought. In essence, the approach adopted a hybrid of the two orientations (Oliver et al, 2005). During the Focus Group Discussion, a recorder was used by the researcher to record the conversation. Each interview was transcribed and stored up with the identical code as the original sound file. The transcription was done following the question-and-answer format.

Again, Interviewing and observations were used as methods to accumulate information. Observations were used because they allowed the researcher to observe phenomenon or respondent behaviour as it happens naturally in its surroundings. Interviewing was necessary for this study because of two grounds. Firstly, most respondents were illiterate, and therefore reading the questionnaire was a problem. The second understanding is that interviewing provides a facial expression to face interaction with respondents in which the researcher can understand both verbal and nonverbal signals (such as gestures, postures, etc.). In this path, the researcher could deduce whether the respondent is getting the correct responses or otherwise.

The researcher interviewed any member of the household who was 18 years and above and was part of the CLTS programme. This is because they can better phrase and possess a fuller apprehension of the phenomenon being considered by the researcher. The researcher sent an official letter to the CLTS institutions, Unit committees, and the Municipal Assembly. The purpose was to get full acceptance from the study areas.

Once more, before households were interviewed, the purposes of the subject area and procedures for responding were explained to them. The questioning was done during weekends and also sometimes in the evening when they had come back from their farms. The researcher was assisted

by five people who were employed to assist in the data collection. Moreover, the assistants were checked once a while to enable the proper adoption of procedures. Information was gathered for a month, by which time, all the communities were covered.

3.7. PILOT TESTING OF RESEARCH INSTRUMENTS.

Primarily, the importance of pilot-testing is that it helps to elicit certain important responses concerning clarity, the relevance of results, and correctness of the whole idea of the questions being asked (Kothari, 2004). The pilot testing helped to improve the suitability and the clarity of words used within the questions asked. The pilot studies helped to collect information that helped to crosscheck deficiencies and helped make the proper modifications concerning the anomalies identified. The pilot study was done two weeks to the study and included respondents who did not take part in the main study". It dealt with the selection of 10% of the whole population considered for the study (Kothari, 2004). This process was to help define instruments' mechanics and point out problems associated with test instructions, determine instances where questions are unclear; format the instruments and remove any typographical errors and inconsistencies. Once all issues with the test items were addressed, the instruments were ready for large-scale data collection.

3.8. THE VALIDITY OF RESEARCH INSTRUMENTS.

Validity is the magnitude of what is supposed to be measured in a situation (Borg & Gall, 1989). Research provides information that the best among procedures will enable validation of content for use of professional procedures or seeking expert analysis (Mugenda & Mugenda 1999). In this respect, the research was supervised by a supervisor and at least two other experts who are well

versed concerning the subject of study. Construct-related procedures were used to validate qualitative instruments whereas the validation of quantitative instruments was done with content-related procedures. Abstractions were created within the instruments used deliberately to help in the conceptualization of variables in the study. There were consistent results since valid instruments were used for the study.

3.9. RELIABILITY OF RESEARCH INSTRUMENTS

The solidity of research instruments is their ability to endure and show pursuance for a while (Yin, 2013). Reliability has to do with the fact that research produces results with consistency for a long period concerning repeated analysis (Mugenda & Mugenda 2003). This brings us to the point where the reliable instrument will be considered as that which provides the results a researcher is expecting regardless of how random the samples of the study seem to be (Mugenda & Mugenda 2003). Random errors however affect reliability in research in such a way that as it increases the reliability decreases. Research errors might occur as a result of inaccuracy concerning how the coding of variables was done and the ambiguity concerning the instructions received during the measurement of variables. However, coding influences the identification of reliability concerning the research. The researcher followed the questionnaire religiously, taken into consideration the objectives of the study. The reliability of the data items was initially tested and a Cronbach alpha coefficient of 0.674 was reported. This indicates that the nature of collaboration among stakeholders in CLTS beneficiary communities has a good internal consistency when compared to the minimum alpha coefficient value of 0.5 suggested by Nunally (1967).

3.10. DATA ANALYSIS

3.10.1 Quantitative Analysis

The Statistical Package for Social Science (SPSS 16v) software was used to analyze the data. Analysis of means, frequencies of data, standard deviations, and other aspects of descriptive statistics were used with much attention to helping provide prudent findings from which genuine conclusions can be deduced (Lawrence, 2006). The adoption of Chi-square tests helped to understand the significance of the relationships among variables under the study.

3.10.2. Qualitative Data Analysis

Content analysis was done to obtain qualitative data from the field survey. This method takes into consideration counting the available aspects of the qualitative data available and making a summary out of it. Computed responses such as percentages and frequencies of respondents or participants were achieved from descriptive statistics. The ratings concerning questions were analyzed with SPSS with a Likert scale to achieve the percentages and frequencies.

The strength and the direction are supposed to be determined regarding the collaboration and it was done with the Pearson correlation for CLTS beneficiary communities. The results that were obtained were presented in tables. The Likert scale was developed with a range of responses from strongly agree (SA) to strongly disagree. The variables were, in effect, the effort to collaborate, willingness to stop collaboration, willingness to maintain collaboration, willingness to continue the collaboration, and regret for collaborating.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

In this section, the study addresses the sex, age, educational level, type of occupation, and religious characteristics of the respondents.

4.1.1 Sex of Respondents.

From Table 4.1, the males comprise 131 representing 47%, while the females comprise 147 representing 53%. Thus greater levels of concentration should be given to females in CLTS

initiatives to help enhance sustainability. This is because females constitute the majority of the study population, this shows clearly that females' participation in CLTS is key.

Table 4.1 Sex of Respondents

Gender	Frequency	Percent
Male	131	47%
Female	147	53%
Total	278	100%

Source: field survey (2019)

4.1.2. Age of Respondents

Table 4.2 presents the age characteristics of respondents surveyed. The table indicates that those who fall within the ages of 25 to 29 were 53 representing 19%, 206 respondents representing 74% were in the age bracket of 30 to 50 while 19 respondents representing 7% were seen in the ages of 51 to 60. It indicates that the majority (74%) of the respondents were those within the 30-50years age bracket. This suggests that all participants of CLTS are within the active working class. Therefore, much attention should be given to the active working class to ensure the sustainability of projects.

Table 4.2 Age of Respondents

Age	Frequency	Percent
25-29	53	19%
30 – 50	206	74%
51 – 60	19	7%
Above 60	0	0%
Total	278	100%

Source: field survey (2019)

4.1.3 Level of education of respondents

Table 4.3 presents the educational level of respondents. The table indicates that the majority of the respondents (68%) have no formal education while tertiary, secondary, and basic are 5%, 16%, and 11% respectively. From the data majority of the participant had no formal education which

largely explains the challenges confronting the sustainability of CLTS, this is because most of them do not understand the implication of a failed CLTS to their health status and sanitation in general, interestingly during a focus group discussion in Sagnarigu Municipal it became clearer that those highly educated understood the CLTS concept and measures that ensure its sustainability (field survey 2019)

Table 4.3 Level of Education of Respondents

Education	Frequency	Percent
Tertiary	14	5%
Secondary	44	16%
Basic	31	11%
No Formal Education.	189	68%
Total	278	100%

Source: Field data (2019)

4.1.4. Occupation Characteristics of Respondents

Table 4.4 indicates the occupational characteristics of participants, the table shows that most of the participants of CLTS are into their own private business(73%) which is predominantly agricultural business, and few within the other sectors of civil service(27%). This implies that all CLTS participants are actively working hence relatively financially sound in helping to finance to improve sustainable CLTS projects.

Table 4.4 Occupational Characteristics

Occupation	Frequency	Percent
Private own business	203	73%
Civil servant	75	27%
Total	278	100%

Source: Field data (2019)

4.1.5 Religious Characteristics of Respondents

Table 4.5 above indicates the religious characteristics of participants. From the table, Islamic religion constituted the majority of our respondents(70%) which suggests that Islamic scholars would be key in ensuring the sustainability of CLTS, this is because they are held sacred and participants will heed to their call which will result in the sustainability of projects.

Table 4.5 Religious Characteristics

Religion	Frequency	Percent
Islam	195	70%
Christianity	39	14%
Africa traditional	44	16%
Total	278	100%

Source: Field data (2019)

4.2 THE ROLE OF STAKEHOLDER COLLABORATION IN IMPLEMENTING CLTS.

Table 4.6 Stakeholder Collaboration in the Implementation of CLTS

Statement	Percentage (n=278)					Mean response
	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	
We participated in the project identification.	16.7	31.8	18.8	19.8	22.9	2
Our needs were assessed before the project implementation.	4.5	6.4	33.2	45.0	11.8	3
We are always consulted before and during project formation.	58.5	20.8	8.3	5.5	6.9	3

We take active participation in the CLTS projects implementation	8.8	38.2	7.0	5.8	40.2	4
We collaborate in CLTS evaluation.	43.2	9.0	27.8	12.2	7.8	1

Source: Field data (2019)

In this section, the study addresses the first research objective by using Likert type of questions. A Likert scale is composed of a series of four or more Likert-type items that represent similar questions combined into a single composite score/variable. Likert scale data can be analyzed as interval data, i.e. the mean is the best measure of central tendency. Likert scales are very frequently used to measure constructs like satisfaction rates, attitudes towards different things, and more. This study is used to measure the satisfaction of stakeholders' collaboration in CLTS implementation. It must be noted that in using this type of questionnaire, the researcher pairs the mean values against the multiples responses.

Table 4.6 represents the stakeholders' collaboration in the implementation of the Community-Led Total Sanitation in the Northern Region of Ghana. In the first place, the statement that "We participated in the project identification" was put before the stakeholder, the mean value is 2 corresponding to "disagree" implying that the stakeholders are normally do not participate in the project CLTS project identification. This is possible because the CLTS involves technicalities to identify which type of CLTS will be preferable for the people. This is supported by the literature by Ficek and Novotný (2019) that the technical innovation that arises as a result of the identification of CLTS must take into account a greater degree of technicality and quality of construction materials in the area, their accessibility, the population expertise, skills, the presence of masonry practices, and distribution of power within that particular group (Ficek & Novotný,

2019). They further contend that the technical expertise must be put to bear to ensure that the right CLTS are constructed to ensure sustainability.

Another statement that was posed to the stakeholders was "Our needs were assessed before the project implementation." The mean = 3 corresponds to "Neutral" meaning the stakeholders were neutral in the need assessment in the Region. The communities which include Savulegu, Sagnarigu and Tamale needs were not consulted before planning and implementation. This project was imposed on them. This contradicts with Strauss (2000) argued that the involvement of front-end-user and for that matter stakeholders in choice-making is a critical factor in boosting their acceptance, demand, and sustainability of a project. It creates transparency among stakeholders and therefore, improves the network relationship among stakeholders and development partners. However, many policy-makers do not involve stakeholders in project identification. Therefore, the study findings are in line with the findings of Strauss (2000). The finding suggests that project formation has a significant neutral effect on project outcome. A respondent from the focus group discussion stated that:

> *"Part of the difficulty in achieving collaboration among the stakeholders is needed assessment. Sometimes we are not consulted before any project or programme is brought to this municipality. Sometimes they consult us very late that it is difficult to prioritize as you are aware differing perceptions, cause different expectations. So we accept whatever they have for us.* [Fieldwork Data, 2019. Interview transcript from Savelugu]

Furthermore, the study revealed that the statement that "We are always consulted before and during project formation". Was not entirely true. This is because the mean value is =3 correspond to 3 meaning the stakeholder were again neutral as regards project formation in the study area. However, Reed (2008) found that the involvement of stakeholders leads to accurate and stronger decisions about the formulation of the project by building a tactile faculty of group ownership. It

also, introduce local ownership which is accomplished by involvement in projects to ensure sustainability. However, none in the collaboration of stakeholders at the project formulation leads to adverse variance to project partners. This is due in part to the non-ownership of the project by the beneficiaries (Reed, 2008).

Again, the study revealed that stakeholders agree that they take active participation in the CLTS projects implementation. This finding is supported by Summers (1986), who notes that at the community level, committees are formed to oversee the implementation of projects and this idea promotes growth in communities. This procedure accomplishes the required results concerning projects. Participation in projects by actors is a very important factor in the success of a project. It promotes accountability and equality of decision during the process. All these are however achievable when communication is effective (Husain, 2013). This gives them a feeling of controlling the process.

Finally, the study revealed that stakeholders strongly disagree of collaborate in CLTS evaluation. This contradicts the finding that the most important thing in CLTS is the evaluation because this is where the developing agents express part or all of the definition, design and construction techniques, execution and surveillance as well as analysis of their interventions without the intervention of external contacts (Ansell & Gash, 2008; Healey, 2003; Simatupang & Sridharan, 2002; Voogt et al, 2015). Again, (Foundation & CLTS Fdn., 2012) opined that Public cooperation and initiatives are important in the project evaluation process. They further pointed out that stakeholders are the end-users of the CLTS projects and are strong contenders in terms of evaluation.

4.3 PERCEIVED LEVEL OF COLLABORATION OF RESPONDENTS IN ASPECTS OF CLTS

In this section, responses about aspects of stakeholder collaboration in CLTS are presented and discussed in line with their contribution to the sustainability of CLTS. A five-point Likert scale (No extent-1, Low extent-2, Moderate extent-3, Great extent-4, and Very great extent-5) was used to measure the perceived contribution of respondents in the various aspects of CLTS in their community. The results are presented in Table 4.7.

Table 4.7 Perceived Level of Collaboration of Respondents in aspects of CLTS.

Aspects of CLTS	Perceived Level of Collaboration Percentage (n=278)					Mean rating
	No extent (1)	Low extent (2)	Moderate extent (3)	Great extent (4)	Very great extent (5)	
Project Design	7.91	7.91	31.66	23.74	28.78	4

Provision of human resource	7.91	2.88	28.06	30.22	30.93	4
Monitor the usage of the project	6.83	11.87	29.86	26.25	25.18	4
Pre-financing	44.96	12.95	16.91	12.23	12.95	2
Community participation	5.76	5.04	37.05	25.18	26.97	4
Project implementers	7.91	9.00	50.00	20.14	12.95	4
The Project is supported by policy framework	26.97	11.87	32.02	15.11	14.03	3
The project is supported by a legal framework	28.06	15.83	30.93	11.15	14.03	3
Technology support	19.06	10.07	33.81	23.03	14.03	3
Leadership support from the community	6.83	6.83	37.05	24.11	25.18	4
Project Ownership	5.04	5.04	24.11	25.89	39.92	4

Source: Field Survey, 2019.

On the issue of perceived collaboration in project design, 15.82% (no extent and low extent) of respondents indicated no collaboration, 31.66% were moderately collaborating and 52.52% (great extent and very great extent) were collaborating in the project design. Furthermore, as regards to their collaboration on the "provision human resource", the extent of no collaboration was 7.91%. The low extent was 2.88%, moderate was 28.06%, great extent and very great extent sum-up to 61.15%. Therefore, out of 100%, 61.15% collaborated in the sustainability of CLTS in the community.

Again, on the issue of monitoring the usage of the project, no extent collaboration was 6.83 while low extent is 11.87 and moderate collaboration was 29.86%. great extent and very great extent

also sum-up to 51.43%. This means that there was a massive stakeholder collaboration which is good for sustaining the CLTS project. Also, in terms of collaboration on pre-financing, 25.18% representing great extent and very great extent, 74.82% representing no extent, low extent, and moderately extent. This revealed that stakeholder collaboration in pre-financing is low. Besides, stakeholders' collaboration in community participation was high thus, great extent (25.18%) and very great extent (26.97%) summing up to 52.15% from a total of 100%. Moreover, their collaboration in project implementation was 33.09% (great extent and very great extent). While the low extent and no extent to collaboration in the implementation of the CLTS project sum-up to 16.91% and 50% were moderate in collaboration of project implementation. This is an indication that stakeholders' collaboration in project implementation is not encouraging as compared to moderate.

In another development, 29.14% (great extent and very great extent) sum-up to "project supported by policy framework while 32.02% represents moderate on project support, 38.84% was for no extent and low extent. The finding is logical because the stakeholders in the community might not be aware of the policy framework of CLTS.

On the issue of collaboration in technology support, 19.06% said they did not collaborate at all (no extent), 10.07% said they collaborated to a very low extent, 33.81% collaborated moderately, 23.03% collaborated to a great extent and 14.03% collaborated to a very great extent. This shows that most respondents are of the view that they collaborate in CLTS in terms of technical support. This could go a long way to contributing to the sustainability of CLTS. Community members also indicated their level of collaboration with CLTS in terms of leadership support. The results from Table 4.7 shows that 25.18% of respondents indicated they collaborated to a very great extent, 24.11% to a great extent, 37.05% to a moderate extent, 6.83% to a low extent while the remaining

6.83% indicated they did not collaborate with CLTS in terms of leadership support. The results imply that the perception of respondents regarding their collaboration in CLTS in terms of leadership support is high.

The collaboration of respondents in terms of ownership was also assessed. Results presented in Table 4.7 show that 5.04% of respondents said they do not collaborate in terms of ownership support, 5.04% indicated they collaborate to a low extent, 24.11% to a moderate extent, 25.90% to a great extent, and 39.92% to a very great extent.

Among projects such as water and environmental sanitation projects that have been evaluated by the World Bank in 2001, which states that only 50-66% was rendered unsatisfactory and less than half of the population were considered as those likely to be sustained (World Bank, 2003). Other reports including the Project assessments consistently report shows that constraints regarding cultural and social values, change in behavioral pattern and other factors such as prohibitive costs, the lack of political and managerial support, or the community itself having a problem regarding the demand for such innovations are clear reasons for failure (Eesley & Lenox, 2006).

A participant in the focus group discussion stated that:

> *"On the whole, the level of innovation of community-led approaches for total sanitation in our community is great. In the last four years, rural sanitation has been hugely witnessed in the country and this is a result of sanitation approaches that are led by community members. The community has done the micro-level and five types of innovations. They include technology, procurement, community development, monitoring, and financing at the micro level which serve as a model for the achievement of sustainable development goals* [Fieldwork Data, 2019. Interview transcript for Savelugu Municipality, 2019]

An expert participant observed that:

> *"The CLTS has been good and useful in many aspects and ways. It includes society and all that which finds in terms of work including the standards of sanitation and analysis of societal and external issues. Sometimes I wonder where these wild animals are when we sometimes evade them".* [Fieldwork Data, 2019. Interview transcript for Sagnarigu Municipality, 2019]

These statements by the participants indicate that the innovation of the Community Led approaches for Total Sanitation has brought about a remarkable improvement in sanitation within our communities. And hence, this calls for the need for giving meticulous attention to the CLTS approach in ensuring sustainability.

4.4 INVOLVEMENT OF RESPONDENTS IN CLTS PROJECT PHASES

In this section, the study presents and discusses the involvement of respondents in the various phases of the CLTS project. Table 4.8 presents the responses about the involvement of respondents in the various phases of the CLTS projectable 4.8 Involvement of Respondents in CLTS Project Phases

Project Level	Involved		Not Involved	
	No	Percentage	No.	Percentage
Identification of area/ sector of intervention	153	55	125	45
Research/Needs Assessment	97	35	181	65
Project formulation	42	15	236	85
Planning (strategy design and work plan by the project)	153	55	125	45

Implementation	181	65	97	35
Evaluation	49	17.5	229	82.5

Source: Field Survey, 2019

Table 4.8 shows that 55% of respondents were involved in the identification of the area/sector of intervention but a few (35%) were involved in the need assessment phase of the project. An even lower number (15%) was involved in the technical project formulation phase, with 17.5% agreeing to be involved in the project evaluation phase. A score of sixty-five percent (65%) is the highest level of involvement which is in the implementation of direct activities. There is however a sharp contrast as it relates to the project team. This study found out that all project team members agree that most project beneficiaries are involved in all project phases except for the project formulation phase. Only 42% of the project beneficiaries said that they were involved in project formulation.

The same contrast is evident from the results of involvement in the CLTS project. where a greater number of the beneficiaries among the respondents (65%) were involved in the implementation process as against thirty-five percent (35%). As further noted that feasibility and the ability to convey the project are reliant on this phase in which the project idea is generated. The decisions regarding the project in terms of implementation and whether the stakeholders get adequate assistance all come from this collaboration (Regional Partnership for Resource Development, 2009). They further made their submissions and concluded that need assessment is made at this phase. Therefore, a community member is interested in this phase.

Mulwa (2008) contends that the fact that identification of a particular need is relevant in building up the mental ability of deprived communities, they are always interested. But further indicated that the identification of needs in a community is done through community development. When this action is put in place, the vision is shared and all these plans come into reality (Mulwa, 2008).

However, there was low involvement at the technical phase with a score of 20%. This is not surprising because, Karl and Bongartz (2006) opined that, interventions regarding sanitation are conceived as a distortive aspect to ongoing technicalities already existing in a particular locality. And people will always oppose it since change comes with resistance and difficulty. CLTS technics, for instance, is a new program meant to design and bring about new behavioural change regarding open defecation. But even if necessary, remedies are brought forth since new issues won't be void of challenges as against the old ones and therefore must be resisted at the initial periods. If the people in the community want to cause a change concerning their behavior towards innovation it can be easily done when natural factors such as long drought and the unavailability of water will push communities to divert from the new models of latrine usage if they want to maintain newly introduced sanitation culture (Mehta, 2010).

An opinion leader in Tamale stated during an interview that:

> *There is still a need to improve on this aspect, as most communities are considered less skilled to be involved in some of the project phases, especially those that are considered to be more technical.* [Fieldwork Data, 2019. Interview transcript for Tamale Metropolitan, 2019]

4.5 CATEGORIES OF STAKEHOLDERS IN CLTS PROJECT MEETINGS

In this section, the study addresses the categories of stakeholders participating in CLTS project meetings. Figure 3 shows the stakeholders who participated in meetings organized before the implementation of the CLTS project in the study areas.

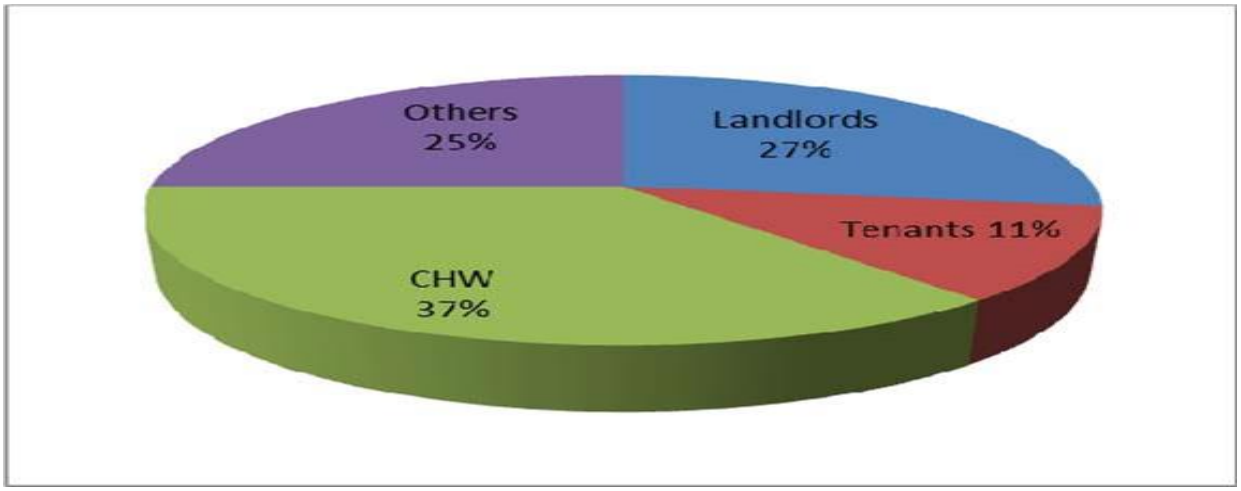


Figure 3: Stakeholders Categories In CLTS Project Meetings

Source: Field survey, 2019

The stakeholder categories were landlords, tenants, and Community Health Workers, workers. From the study findings, those who attended such meetings on CLTS were informed through interpersonal communication from colleagues and CLTS officials. However, a reasonable number of the respondents indicate that they have attended various CLTS sessions. This study also found out that, all of them have in one way or the other played a significant role toward the attainment of CLTS goals in the area. About 37% of the participants were CHW and the meeting discussed the process of the CLTS work plan.

From figure 3, the results also revealed that 27% of the respondents who were Landlords indicated that they are not aware of any CLTS project however, they attended the meeting or project in the community. Other activities that recorded between (25%) and eleven percent (11%) were tenants. include triggering of action, handwashing activities, construction of new toilets, and there is a case of promotion of good sanitation practices in the said areas.

These results supported the finding of Musyoki (2007) that, community collaboration is mutual and also entails a consistent interaction between the key stakeholder groups, project consorts, and

local government. There should be at least an opportunity for respective stakeholders in terms of the project cycle and collaborations (Musyoki, 2007). Furthermore, even though the operation of the community collaboration approach is scanty, available information shows that the naivety and over-optimism regarding the people involved have a role to play in terms of available benefits (Mukherjee &Shatifan, 2010).

4.6 NATURE OF COLLABORATION IN MONITORING AND EVALUATION AMONG STAKEHOLDERS IN CLTS IN BENEFICIARY COMMUNITIES

With regards to ways in which stakeholders collaborated in M&E, it was established that stakeholders at the community and sub-structure level collaborated in M&E of the CLTS projects and programmed through stakeholder review meetings. The (majority) also collaborated only through public hearings during the preparation of the M&E plan. Table 4.10 presents responses on the nature of collaboration among stakeholders in CLTS beneficiary communities.

Table 4.10 Nature Of Collaboration Among Stakeholders in CLTS Beneficiary Communities

Statement	Percentage (n=278)					Mean response
	Strongly disagree 1	Disagree 2	Neutral 3	Agree 4	Strongly Agree 5	
I always make an effort to collaborate with CLTS and the community	41.7	24.8	10.8	10.8	11.9	2
I do not wish to continue my collaboration with CLTS and community	7.5	2.5	39.2	45.0	5.8	3

It is Worthwhile to maintain collaboration with CLTS and the community	56.7	25.8	7.5	4.2	5.8	2
I will continue to collaborate with CLTS and community	44.2	34.2	10.0	5.8	5.8	2
I wish I had never collaborated with CLTS and community	10.0	5.0	25.8	54.2	5.0	3

Source: Fieldwork, 2019

From Table 4.10, Mean = 2 the stakeholders disagree that they make effort to collaborate with CLTS and the community. The result indicates that even though these members were aware of the presence of CLTS in their area, they just refused to make any effort to get to them. Another group of people was of the view that "they do not wish to collaborate with CLTS and the community.

This group has a mean score of 3 which means they were neutral between the leaders of these communities and CLTS. They are undecided with the way open defecation issues are being handled and therefore, prefer to be neutral in that project.

Furthermore, the statement "It is worthwhile to maintain collaboration with CLTS and community" had a mean score of 2 which corresponds to disagree. This group of people believed that the collaborative team is ineffective and inefficient in their quest to end open defecation by collaborating with the community members and the CLTS hence, the need to collaborate with them. Finally, the statement, "I wish I had never collaborated with CLTS and community" had a mean score of 3, corresponding to Agree. This group of people is also frustrated, perhaps, due to part of the delay in executing the project...

The results in Table 4.10 revealed that there is a huge gap in collaboration among stakeholders in CLTS beneficiary communities. Therefore, CLTS advocates must work hard to reduce this gap to

promote sanitation in communities. This is in line with the assertion by Mukherjee & Shatifan (2010) that, collaboration approach is scant in many community projects. The authors further note that beneficiaries may be overoptimistic and naïve about the benefits of the project. Furthermore, Leach (2008), reasoned regarding how much is known in terms of the effects of community collaboration in many community projects. There are claims that it is equally a result of the rigorous assessment methods. Suggestions have been made that people are very desperate for community development and the influence that collaborations have on such operations is highly required. For instance, a participant asserted that:

> *"We don't understand the kind of collaboration these people need from us. This is because you are bringing a project to us and we are going to pay before you construct it. So for me, I will not collaborate with them. We thought they would collaborate with us so that together we can have toilets in our houses without paying. But every meeting to discuss CLTS progress, we will not take part".* [Fieldwork Data, 2019. Interview transcript for Sagnarigu Municipality, 2019]

Another participant shared the same sentiment with the first one, stating:

"Collaboration is important because it is a platform where people in the community tend to show their sense of being responsible for their development and welfare at large. For me, I was consulted and I fully collaborated with all the stakeholders in this Metropolitan from design to implementation". [Fieldwork Data, 2019. Interview transcript for Tamale Metro, 2019]

4.7 FACTORS INFLUENCING SUSTAINABILITY OF CLTS IN STUDY COMMUNITIES

In this section, the study addresses the third objective using a Likert scale (Agree, strongly agree, not sure, disagree, and strongly disagree) using responses from 278 respondents. The results are presented in Table 4.11.

The results from Table 4.11 indicate that at least the majority of respondents (62.59%) agreed and strongly agreed that leadership influences the sustainability of the CLTS project in the study areas. However, 26.62% of the respondents at least disagreed and strongly disagreed that leadership can influence the sustainability of the CLTS in the community while 10.79% of respondents were not sure of leadership influence in sustaining CLTS projects.

Table 4.11: Perceived factors influencing the sustainability of the CLTS project.

Statements about factors influencing project sustainability	Percentage (n=278)				
	Strongly disagree (1)	Disagree (2)	Not sure (3)	Agree (4)	Strongly Agree (5)

Leadership has the ability in influencing the sustainability of the CLTS project	12.59	14.03	10.79	28.42	34.17
Technical ability influences the sustainability of the CLTS project	7.55	4.32	3.60	37.77	46.76
Stakeholders have a social obligation to the sustainability of the project	14.75	4.68	5.39	41.37	33.81
Communal labor in the study areas influences the sustainability of CLTS	8.27	7.91	4.32	39.21	40.29
Donor support influences the sustainability of the CLTS	17.98	6.12	10.79	29.86	35.25

Source: field survey (2019)

The results from Table 4.11 indicate that majority of the respondents at least agreed that technical ability has a strong influence on the sustainability of the CLTS project with 84.53% (agreed and strongly agreed). A respondent in an interview was of the view that:

> *"We do not have the technical ability to construct the latrine. Sometimes we just construct a building and roof it for the latrine purposes and during the rainy season it cannot be used again, as a result, we made do with the bush"* [Fieldwork Data, 2019. Interview transcript for Sagnarigu Municipality, 2019]

A respondent who disagreed noted that:

> *It is the responsibility of the government to provide us with latrines, not ourselves. We pay tax and expect the government to provide us latrines. Look our chiefs have sold all the lands meant for toilet facilities and now the government wants us to use our resources for the*

latrine. We will always use the bush [Fieldwork Data, 2019. Interview transcript for Tamale Metro, 2019]

Another respondent stated that:

It is our social responsibility to provide latrines for homes because you cannot construct a full house without a toilet in it. It is just that sometimes we don't know that we need to toilet when constructing our homes [Fieldwork Data, 2019. Interview transcript for Savelugu Municipality, 2019]

A respondent in an interview stated that:

You know I could not have constructed this alone, I was helped by friends in this area. We want to end open defecation in this area, so the Assemblyman always encourages us to help another to construct a latrine and if you refused, the people always talk about you. [Fieldwork Data, 2019. Interview transcript for Sagnarigu Municipality, 2019]

Table 4.11 indicates that, 75.18% of respondents agreed and strongly agreed that stakeholders have a social obligation to the sustainability of the CLTS project, while 5.39% were not sure, 19.43% of the respondents disagreed and strongly disagreed that stakeholders have a social obligation in sustaining CLTS projects. Results in Table 4.11 shows that communal labour in the study areas have a high influence on the sustainability of the CLTS project with 79.5% respondents agreed and strongly agreed, 16.18% of respondents disagreed and strongly disagreed and 4.32% of respondents were not sure of the influence of communal labour in sustaining CLTS project.

Table 4.11 indicates that the majority (65.11%) of respondents agreed and strongly agreed that donor support has a greater influence on the sustainability of the CLTS project. A respondent stated in an interview that:

We supported USAID to put up this latrine therefore and there often come here to see how we are using it. It is a shame when they come here to find that the latrine is not neat. So we always clean it and patch it when released some cracks [Fieldwork Data, 2019. Interview transcript for Sagnarigu Municipality, 2019]

4.8 CHALLENGES TO STAKEHOLDER COLLABORATION IN IMPLEMENTING CLTS

This section addresses the fourth objective. That is to examine the challenges to stakeholder collaboration in CLTS. The sample size for this analysis was 278.

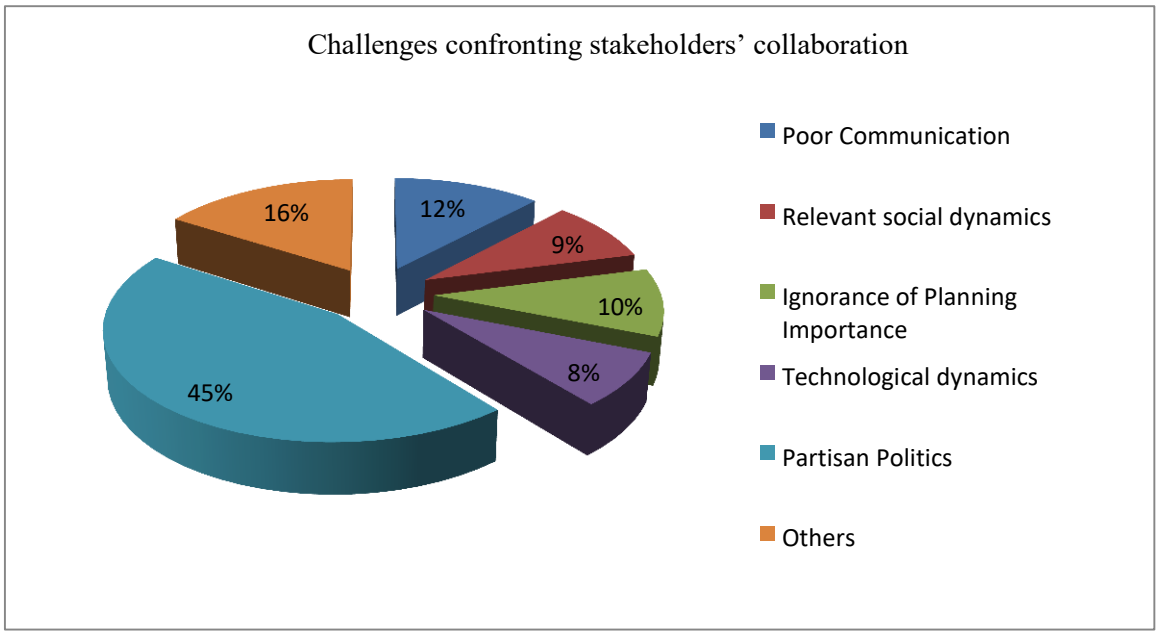


Figure 4: Challenges confronting stakeholder's collaboration in CLTS

Source: Field Survey (2019)

It can be seen from figure 4 that partisan politics is the main challenge confronting the stakeholders' collaboration. It can be seen also that, though, communication has been a factor inhibiting the smooth progress of the stakeholders' collaboration, however, partisan politics play a major factor

It can be seen in figure 4 that, a very critical challenge of stakeholder collaboration is partisan political considerations and that brings to question of partisan differences in the study areas. In the

literature, it was found that important diversity concerning social and institutional arrangements that emerge with issues concerning sanitation were lacking as a result of political influence. (Mehta, Marshall.al., 2007).

Furthermore, for the environment of technological execution, which is 8% is often phased and progressive and the people will embrace it if it is durable, an idea is seen as going up into the future of sanitation (UN Millennium Project 2005). What we ask ourselves was what forms of challenges and possibilities can be found in the course to promote sanitation in a particular location. (Kar& Chambers 2008).

But Kar and Bongartz (2006) have an opinion that interventions made towards sanitation are seen as a means to cause a disruption of certain variations and open doors for new ideas to help in the eradication of open defecation. These new situations are mostly not void of novel dynamics and problems which are normally encountered in later stages. A typical example is an event of a long drought that is capable of pushing a community to divert from their normal routine latrine usage if they want to maintain their new sanitation practices more particularly when communication is inadequate (Mehta, Marshall, et al. 2007).

A participant confirmed that:

> *"More often than not, the people do not consult us before embarking on any community development project. Though some of the projects are good, it is not going to be free. We have to pay for it. Nobody communicated this to us. We just realized that. So people are putting these structures and I decided to also joined them"* [Fieldwork Data, 2019. Interview transcript for Savelugu Municipality, 2019]

Another participant added that:

> *"This project is for members in this community who are supporting the ruling party and I would not be part of them. So I don't see it necessary for joining them. I don't have a toilet in my house though, but the bush is there. Sometimes, when I go to the farm I do it there before coming home. For this is a waste of money".* [Fieldwork Data, 2019. Interview transcript for Savelugu Municipality, 2019]

From the interviews, one realized that ignorance is a big challenge. A participant stated that:

> "*How you share the same toilet with women in your house? That is supposed to mean that you will have a timetable for women as well as men. How are we going to be using it? Normally women keep long in the toilet. My son 'we cannot use this toilet together'. It is better we used the bush'*[Fieldwork Data, 2019. Interview transcript for Savelugu Municipality, 2019]

Another participant complains about the financial aspect that:

> *"Due to lack of funding we do not pay attention to what people say about CLTS frequently and in some community's people are supported with the fund, a follow-up will be made to see how the fund was used. We don't have much in this community"* (Fieldwork Data, 2019. Interview transcript for Savelugu Municipality, 2019]

On the issue of whether they need some materials support. A participant attested that

> *Building materials such as iron rods, cement, pipes, among others were given to only a few people for them to pay later so that others who cannot afford to build latrine will benefit*

later on. But this initiative failed because those who took these materials did not payback.

[Fieldwork Data, 2019. Interview transcript for Tamale Metro, 2019]

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

5.1 SUMMARY OF FINDINGS

The findings from the study revealed that, even though there is a positive relationship between project identification and stakeholders' collaboration, such a relationship is weak. There is also a

weak relationship between the project plan and stakeholder collaboration and a very weak relationship between project formation and stakeholders' collaboration. However, there is a strong positive relationship between project implementation and project evaluation as well as stakeholders' collaboration.

The study was designed to examine the stakeholder collaboration perspective on the issue of participatory and fair representation using the community-led total sanitation program as a case study in Tamale Metro, Savelugu, and Sagnarigu Municipality. The study tries to identify the role of stakeholder collaboration in the sustainability of CLTS in the Northern Region of Ghana. The result indicates that the role of collaboration was found to be above average with regards to project identification, project plan, need assessment, and project implementation and evaluation.

On average, stakeholders' collaboration to the CLTS meeting was relatively poor. Many of the respondents were acutely unaware of the concept of CLTS though they do attend the meetings. Again the study assessed the factors influencing the sustainability of CLTS in the study areas in the Northern Region of Ghana. The majority of respondents (62.59%) agreed that leadership influences the sustainability of the CLTS project in the study areas. This is so because people occupying leadership positions in the study area possess the needed enterprise and initiative. Respondents (84.53%) perceived technical ability has a strong influence on the sustainability of the project. This suggests that technical know-how is a key contributory factor in sustaining CLTS in the study areas.

On the issue of social obligation, 75.18% of respondents indicated that the stakeholders have a social obligation in ensuring the sustainability of CLTS in the community. This is so because community members are inter alia, duly engaged in the decision-making process, or being implored with rigid laws to ensure the sustainability of the project. Almost 75.5% of respondents agree that communal labour influences the sustainability of the CLTS project in the community, which means that, members of the community voluntarily come together to rehabilitate the project occasionally. Also, 65.11% of respondents agreed that donor support has a greater influence on the sustainability of the CLTS project.

Furthermore, the study revealed that, poor communication which was 12%, social dynamic, 9%, ignorance of planning, 10%, technological dynamics, 8%, partisan politics constituting 45% and

16% representing other factors. The study identified these factors as the challenges confronting stakeholders' collaboration. The study also revealed how partisan politics is a major challenge to the stakeholders' collaboration.

5.2 CONCLUSIONS

This study assessed the role of Stakeholder Collaboration in the Sustainability of Community-Led Total Sanitation in Selected Districts of the Northern Region of Ghana. The results show that the stakeholders' collaboration was a strong factor in the implementation of CLTS in the study areas in the Northern Region of Ghana. The study also shows that there is a positive relationship between the project plan and stakeholder collaboration. The study reveals also that, effective collaboration in the community brings about improvement in the acceptance of the project. The study further indicates that the project implementation has a strong and positive contribution to stakeholders' collaboration.

Again, the study shows that there was massive stakeholder collaboration in sustaining the CLTS project. This is because stakeholders ensure a high level of monitoring in using CLTS projects in the study area. For the project to be sustained, elements such as project design, provision of human resources, monitoring, among others must not be undermined.

Besides, there exists a significant influence of leadership, technical ability, communal labour, stakeholders' social obligation, and donor support scheme to ensuring the sustainability of the CLTS project. A holistic approach must be encouraged as a conduit to ensure the smooth and continuous use of a project over time. This is because an element cannot be insulated as a separate entity from the others. All the elements need to be integrated into achieving a massive stakeholder's collaboration in sustaining the CLTS project.

Finally, the challenges of stakeholder collaboration in the implementation of CLTS are evident in the findings. The findings reveal that the problems with implementing CLTS are poor communication, improper planning, social and technological dynamics; as in the sharp difference and difficulties that come with adopting new things due to culture and religious rigid beliefs. It is gratifying to note that, during all these challenges, partisan politics came out as the most critical challenge.

5.3 RECOMMENDATIONS

The findings and conclusions of the study give rise to the following recommendations.

5.3.1 Community Level

First and foremost, the implementers should partner with project organisations so that they can pre-finance it and the community members who are in need could pay later or make payment in installment. Also, the implementers should expand the material support given to community members on credit to cover a larger majority of them, and defaulters of this initiative should be sanctioned to deter others from doing the same. This way, more people would be responsible thus more could have access to build the structure.

Besides, communication as a vital ingredient through which information can be passed to the community members should be improved. The common medium of communication should be employed for transmitting information about CLTS to the community members. This will go a long way to strengthen the tie between the project organizations and the beneficiaries' areas in the various district.

Furthermore, awareness creation must be emphasized annually. For CLTS, a world toilet day will be best. On this day, tours could be made around corporate facilities and also include biodiversity

conservation objectives to ensure sustainability. This could also be monitored through frequent counts of organisms such as birds in specific habitats annually.

5.3.2 **District Level**

The district should allocate a reasonable percentage of its Common Funds for CLTS implementation and follow-up activities. These funds will enhance necessary logistical support (such as automobiles, fuel, stationeries, amongst others) to frequently follow-up to communities to monitor and also ensure continuous monitoring after the implementers stop providing funds. Again, the District Assemblies should solicit funds from development partners or international NGOs to enable them to implement CLTS independently and support other CLTS activities in their jurisdiction.

The District Assemblies must incorporate CLTS into its District Environmental Sanitation Strategy and Action Plan and the District Medium Term Development Plan with clear budgets. The people must be made to know that toilet is an essential component of their building and must be part of the building.

Finally, for the district to curb or end open defecation, then it necessary that everyone in the district takes upon themselves to change their attitude toward open defecation. This study revealed that even if latrine is provided some people will still prefer the bush to use it. Therefore, community members should change their attitude.

5.3.4 **Further Studies**

The study highlighted the strong community demand for ODF sustainability information and therefore recommends that further studies be conducted to organize and integrate ongoing and recently completed ODF sustainability studies within residential areas.

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APPENDIX 1: QUESTIONNAIRE

UNIVERSITY FOR DEVELOPMENT STUDIES

DEPARTMENT OF AGRICULTURAL EXTENSION, RURAL DEVELOPMENT, AND GENDER STUDIES

QUSITIONNAIRE FOR RESPONDENTS.

I am an MPhil candidate from the University for Development Studies, and I am currently undertaking a study on " The role of stakeholder collaboration in the sustainability of community-led total sanitation in the Northern Region of Ghana". This research is fully endorsed by the Faculty of Communication, Tamale Campus, and my supervisor,

The findings would benefit both the Institutions and Health service personnel. Results from this study will assist in curbing open defecation in the Northern Region. The sharing of your knowledge and experience as you answer the questionnaire will be valuable to me and as such will be treated with the strictest confidence. No reference will be made to any individual and the information will be reported in an aggregated form. A summary of my findings will be provided upon your request.

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

The following questions concern your position and other personal information. Completion of this information is voluntary and confidentiality is assured. No individual data will be reported.

1. What is your occupation?

□ Private own business

□ Civil servant

Other (specify…….)

2. What is your Sex?

□Male

□Female

3. What is your Job Title?

…….

4. Do you supervise others?

□Yes

□No

5. How long have you worked in this Region?

_____ Years _____ Month

6. What is your Age Group?

□25 to 29 □30 to 50 □51 to 60 □ Above 60

7. What is your highest level of Education?

Did not complete High School □

High school degree/equivalent □

Diploma □

Bachelor's degree □

Master's degree □

PhD □

STAKEHOLDER SURVEY

Q1 Have you ever heard of Community-Led Total Sanitation?

□ Yes (1) □ No (2)

If No Is Selected, Then Skip Question one (1).....?

Q2 How familiar are you with the goals of Community-Led Total Sanitation?

□ Not familiar at all (1) □somewhat familiar (2) □ Very familiar (3)

Q3 How frequently do you collaborate with Community-Led Total Sanitation members?

□ Weekly (1)

□ Monthly (2)

□ Quarterly (3)

□ Yearly (4)

□ I never collaborate with Community-Led Total Sanitation (5)

SECTION B: NATURE OF COLLABORATION AMONG CLTS STAKEHOLDERS

a. Forms of stakeholders in the northern region. Please, tick. Which form of stakeholder you are.

□Business owners

□Care services

□Community &residents' group's Councilors

□ Developers

□ Education providers, state and private (stakeholders in schools)

□Elected representatives

□Emergency services

Stakeholder collaboration. Please, note your level of agreement or disagreement with the following statements

No	Stakeholder collaboration	Agree	Strongly Agree	Disagree	Strongly Disagree	Neutral
1	I make an effort to collaborate with CLTS and the community					
2	I do not wish to continue my collaboration With CLTS and Community					
3	I believe it is worthwhile to try to maintain a collaboration with CLTS and Community					
4	I wish to keep a long-lasting collaboration with CLTS and Community					
5	I wish I had never collaborated With the CLTS and Community					

6	Community and CLTS is like me in that we both value "cradle to career" for open defecation					
7	I agree with CLTS and Community And we can curb open defecation in my community by working					
8	CLTS, Community, and I agree that with collaboration, improving defecation free outcomes in my community is important					
9	I agree with the Community and CLTS that we should use data to make decisions on how to improve open defecation					
10	CLTS, the Community, and I have different understandings of who should collaborate in decision making					
11	CLTS is consistent in what it says to me and the community					
12	Members of Community-Led Total Sanitation Are truthful with me compared to other organizations, CLTS treats me fairly and justly					
13	Generally speaking, I don't collaborate with Community-Led Total Sanitation					
14	CLTS keeps its promises					
15	Overall, my collaboration with the CLT benefits me					
16	Generally speaking, CLTS meets my needs					
17	Generally speaking, my collaboration With Community has problems					
18	In general, I am satisfied with my collaboration With CLTS					
19	My collaboration with CLTS is good					
20	Collaboration with and the community CLTS is good					

2. What is the role played by the community in the initiation of the project?.....
.....
.....

3. How was the area determined for the project?.....
.....
.....
.....

4. Who was involved in the project implementation and what was the nature of involvement?.....
.....
.....

5. How can the dilemma of giving less authority to the grassroots in the development of the project be
resolved?.....
.....
.....
.....

6. How can community development programs become sustainable?.....
.....
.....

7. How do many of the community members perceive project ownership?.....
.....
.....

SECTION C: CONTRIBUTION OF STAKEHOLDER COLLABORATION TO CLTS SUSTAINABILITY

This section addresses the second research question. "How sustainable is CLTS in the northern region. That is the role played by the community in the sustainability of CLTS in the Northern Region. Please tick your corresponding responses that are on a scale of 1 No Extent, 2 Low Extent, 3 Moderate Extent, 4 Great Extent, and 5 Very Great Extent.

	The role played to ensure CLTS sustainability	1	2	3	4	5
1	We take part in designing the project					
2	Provision of human resource					
3	We monitor the usage of the project					
4	Do you enjoy pre-financing?					
5	Community participation					
6	Project Implementers					
7	The project is supported by the policy framework					
8	The project is supported by a legal framework					
9	We enjoy technologies support					
10	We have leadership support from the community					
11	We enjoy aid from NGOs					
12	We owned the project					

13How is the project site determine?.....

14. As a community, are you involved in the repair and maintenance of the project……..

(1) Yes (2) No.

If yes, how are you involved in repair and maintenance?

(a) Financial contributions.

(b) Labor contribution

© Rules and regulations

(d) Community skills contribution

(e) Community committees.

(f) Moral support

14. What will you say most critical factor that keeps the CLTS running in this community?...

(a) Strong and visionary leaders

(b) Finances

© Social obligation

(d) Communal problems

(e) Support from donors

SECTION D: FACTORS INFLUENCING SUSTAINABILITY OF CLTS

The role of controllers in ensuring the sustainability of CLTS. Please tick your corresponding responses that are on a scale of 1 No Extent, 2 Low Extent, 3 Moderate Extent, 4 Great Extent, and 5 Very Great Extent.

Number	The Role played	1	2	3	4	5
	NGO's					
	Government Agencies					
	Religious Leaders					
	Political Class					
	Donors					
	CBO's					
	Political institutions					

SECTION E: CHALLENGES TO STAKEHOLDER COLLABORATION IN CLTS

What are the constraining and challenges to stakeholder collaboration in CLTS? Please tick your corresponding responses that are on a scale of 1 No Extent, 2 Low Extent, 3 Moderate Extent, 4 Great Extent, and 5 Very Great Extent.

Number	Social/Cultural challenges of project sustainability	1	2	3	4	5
	Participation					
	Commitment					
	Cooperation					
	Leadership					
	Trust					
	Social obligation					
	Oppressive structures in CLTS construction					
	Bureaucratization in CLTS construction					
	Social alienation					
	Communication efficiency					

	Power struggles with using CLTS project					
	Project imposition on area people					
	Social alienation on the use of CLTS PROJECT					

Apart from the above-mentioned factors, do you face any social challenge in the CLTS project……
……
……
……
……

Does your religion hinder the use of manure processed from human excreta and urine?

a) Yes b) No

If yes, please explain……
……..

In what ways have you benefited from the CLTS PROJECT?.....
.....

What reasons do you give for having this CLTS project?.....
.....

No	Physical challenges	1	2	3	4	5
	Create jobs					
	Capital formation to stakeholders					
	Social security					
	Interest rates					
	Credit to interested people on CLTS project					
	Land availability					
	Water availability					
	Cost of material					
	Availability of materials					

Apart from these physical challenges, are there other challenges that CLTS faces for sustainability?.....
.....

If yes, please, explain……
……
……

APPENDIX 2: GUIDE FOR FOCUSED GROUP DISCUSSION.

1. What do you think is the role of stakeholder collaboration in ensuring the sustainability of CLTS?
2. What is your understanding of CLTS in your community?
3. What is the role of stakeholder collaboration in implementing the CLTS initiative?
4. Do you participate in the CLTS initiative?
5. How do you assess the nature of stakeholder collaboration in the monitoring and evaluation of the CLTS initiative?
6. Could some factors influence the sustainability of CLTS in your community?
7. What could be challenging to stakeholder collaboration in the implementation of CLTS?
8. Are there major or minor challenges to stakeholders' collaboration in the CLTS initiative?
9. Could there be ways of overcoming these challenges of CLTS initiatives in your communities?
10. Do you think the collaboration of stakeholders could enhance the sustainability of CLTS in your community?
11. Do you think that stakeholders have a significant role in the sustainability of CLTS in your community?

APPENDIX 3: INTERVIEW GUIDE FOR EXPERTS

1. Do you appreciate stakeholder collaboration to the sustainability of CLTS?
2. How do you assess the stakeholders' collaboration with the various communities in the CLTS projects?
3. What are the factors that foster the sustainability of CLTS by stakeholders?
4. Do the stakeholders strive to enhance the desired sustainability of CLTS?
5. What kind of stakeholder collaboration will make a difference as far as the sustainability of CLTS is concerned?
6. Are the communities prepared to embrace the CLTS initiative?
7. What are some of the challenges of CLTS initiatives faced in their implementation?
8. Could there be ways of overcoming these challenges of CLTS initiatives in your communities?
9. Could these solutions to the challenges of CLTS initiatives ensure sustainability?