

Traditional Chieftdom and Acceptability of Productive Sanitation by Rural Communities of Bouafle in Côte d'Ivoire

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How to cite this paper: Gauze, J. T., Yapi, E. A. M., Yao, K. A., Gnagne, T., & Mel, M. R. (2025). Traditional Chieftdom and Acceptability of Productive Sanitation by Rural Communities of Bouafle in Côte d'Ivoire. *Open Journal of Social Sciences*, 13, 25-39.
<https://doi.org/10.4236/jss.2025.1312003>

Received: November 2, 2025

Accepted: December 6, 2025

Published: December 9, 2025

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Abstract

Traditional chieftaincies are essential to the management and development of rural communities. They contribute effectively to progress, the adoption of projects, and the implementation of strategies and laws aimed at achieving development. Therefore, the objective of this study was to highlight the role of traditional chieftaincies in the adoption of the productive sanitation project, or ECOSAN, which involves the use of human urine and feces as biofertilizers in agriculture. The study took place in four rural communities in Bouafle: the Gouro, Yowlè, Baoulé, and Mossi. Focus groups and individual interviews, using a primarily qualitative approach and interview guides, were conducted to better understand the different traditional organizations within the same territory. The results revealed that the acceptance of using sanitized human urine and feces in agriculture was facilitated by the actions of traditional leaders. Thus, communities living in strong social cohesion readily embrace development projects, unlike communities with leadership challenges, where obedience to traditional authorities is based on customary legitimacy. The results also shed light on the organizational chart of the traditional chieftaincy, constructed according to a standard model representative of all the neighborhoods that make up the locality. This study made it possible to evaluate the organization of the traditional chieftaincy around the sanitation project, in order to see its real impact on rural populations in terms of the acceptance of using sanitized human excreta in agriculture. It demonstrated how the chieftaincy led its community to adopt productive sanitation, which was presented to them as a new concept.

Keywords

Acceptability, Productive Sanitation, Traditional Chieftaincies

1. Introduction

Traditional chiefdoms, a political and social organizational structure based on family, clan, and lineage, have existed since the beginning of the first human societies around the world (Graeber & Wengrow, 2021), but they are gradually becoming particularly prevalent in sub-Saharan Africa. Traditional African chiefdoms play an important role in social and political life by managing the community and performing administrative functions while adapting to changes in societies. They are generally built around a central chief (Ouattara, 2014). African chiefs are therefore major players in the political system of our postcolonial states. They claim to be legitimate and authentic representatives of their populations. As such, they are essential in the day-to-day management of populations. Indeed, they are essential in the day-to-day management of populations.

In Côte d'Ivoire, traditional chiefdoms are very important to the state, which has sought to institutionalize them, notably through the creation of the National Chamber of Kings and Traditional Chiefs (Flan et al., 2021).

Several works by writers and researchers such as Abba (1990), Mback (2000), and Kpwang (2011) explore the history of traditional chiefdoms, addressing the crises they face in terms of legitimacy, conflicts, and interactions between traditional authorities and state administrations. This study examines the ability of traditional chiefdoms in the Bouaflé department to successfully implement the productive sanitation project, which involves encouraging people to use their urine and feces as biofertilizers.

The choice of this research site is justified by the fact that the department of Bouaflé is a cosmopolitan region. Indeed, according to (ANADER, 2014), the territory is occupied by three large ethnic groups: the Gouros, the Baoulés and the Yowles, all indigenous, and the Mossis, mostly settled among the allochthones and the allogenes.

This multi-ethnic cohabitation allowed us to better understand the different traditional organizations in the same territory and to better understand the cultural divergence in the representations of defecation habits and in the adoption of the productive sanitation project. In view of the above, what is the contribution of the traditional chiefdom to the acceptance of the concept of productive sanitation? Will the chiefdom in the Bouaflé region be influential enough to lead its population to accept and practice productive sanitation? The objective of this work is to identify the strategies implemented by the traditional chiefdom to lead populations to adopt productive sanitation and to evaluate its practical organization around this experience in the cultural diversity of the area.

The thesis presented is as follows: the adoption of productive sanitation is fa-

cilitated by the actions of traditional leaders.

2. Materials and Methods

2.1. Presentation of the Study Area

2.1.1. Geographical Presentation of the Study Area

Located in the west-central part of Côte d'Ivoire in West Africa, the Bouaflé department, in the Marahoué region, covers an area of 4214.5 km² and had a population of 213,967 inhabitants in 2021 (RGPH, 2021).

Its neighboring departments are Yamoussoukro to the east, 60 km away; Daloa to the west, 82 km away; Sinfra to the south, 45 km away; and Zuénoula to the north, 63 km away. The department comprises eleven (11) sub-prefectures, with Bouaflé as its administrative capital. A transitional zone, the Bouaflé department is divided between dense forest in the south and west, and wooded savanna in the north and east. It has a humid tropical climate with rainfall ranging from 1200 to 1600 mm per year, with two rainy seasons and two dry seasons.

Furthermore, numerous waterways continuously irrigate the region, creating many arable lowlands. The main activity is agriculture, which is highly developed and makes the region the second largest producer of cocoa in the Ivory Coast (Commodoafrica, 2013) (Figure 1).

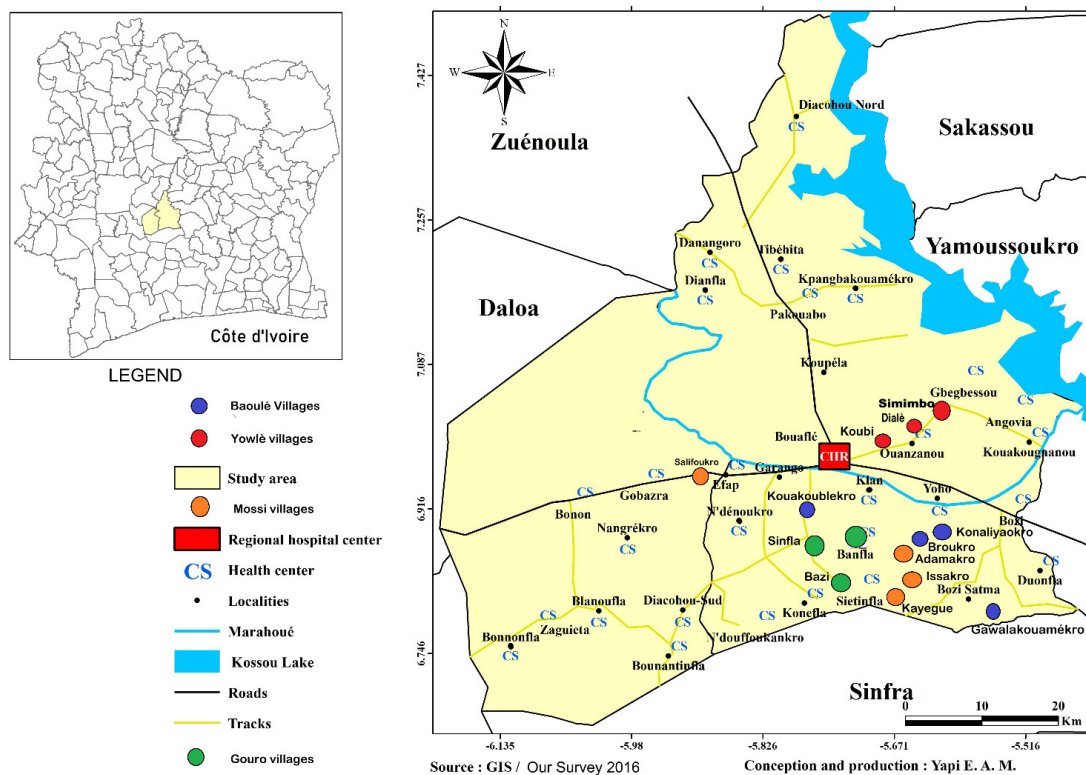


Figure 1. Map of the study area (Source: Gauze et al., 2025).

2.1.2. Socio-Cultural Presentation of the Study Area

The settlement of the Bouaflé department occurred in successive waves. Com-

posed of a cosmopolitan population made up of native inhabitants, non-native inhabitants, and foreigners, the Yowlè, divided into two groups, were the first inhabitants: the southern Yowlè, who were landowners, and the northern Yowlè, who came from Sakassou to join the former. They ceded the territory to the Gouro, who today constitute the largest segment of the population of Bouaflé. The Baoulé (Ayaou) came from Sakassou towards the end of the 19th century. Non-native inhabitants and foreigners arrived thanks to trade and the introduction of cash crops such as coffee and cocoa. In order of arrival, they are: Burkinabé, Malinké, Baoulé, Agni, Sénoufo, and Malians. The foreign colonies were composed of Malians, Guineans, Mauritians, Senegalese, Nigerians, Lebanese, Ghanaians, Nigériens, Togolese, etc., are dominated by a large Burkinabé community (ANADER, 2014). The villages in the Bouaflé region are under the customary authority of a village chief, notables, a committee head, a youth leader, a women's leader, and the heads of each respective community within the locality. Power is centralized around the village chief. The study took place in 14 villages. We considered three to four villages per dominant ethnic group in the region.

2.2. Study Type

This study is primarily qualitative. It focuses mainly on direct observation and oral, non-written documentation. The qualitative approach allowed for the observation and understanding of the organization of chiefdoms, their strategies implemented to promote the adoption of productive sanitation, and the population's reaction to their traditional authorities regarding social cohesion.

Oral documentation allowed us to substantiate certain reactions and behaviors observed within the communities. The study thus integrates local dynamics into the broader context, drawing on methodological approaches from ethnology, the anthropology of social change, and the sociology of rural development.

2.3. Study Population

The key informants we consulted were the chiefs of the studied localities and the various heads of households benefiting from Urine-Diverting Dry Toilets (UDDT)

The chiefs are the supreme authority in the localities they govern. They therefore have the advantage of guiding their populations toward the adoption of productive sanitation. The chiefs are the guardians of traditions, customs, and practices. In this capacity, they can help us understand the communities' reactions to the new management of their excreta.

Household heads have authority over their families, which can influence the proper use of UDDT. They are also responsible for the arable plots that need fertilizing. Therefore, they are best positioned to understand the socioeconomic benefits of productive sanitation.

2.4. Sampling

The sampling for this study is based on a qualitative approach using both individ-

ual interviews and focus groups. This approach allows for the collection of rich and varied data on the perception and organization of traditional leadership regarding the acceptance of productive sanitation.

Participants were selected purposively, using intentional choice sampling. We used this type of sampling to prioritize the relevance of the interviewees over their statistical representativeness. Therefore, the selected participants were heads of households benefiting from the UDDT program or their representatives, chosen for their direct experience using the program and their membership in the various communities involved.

Household selection was carried out with the support of local traditional authorities and community health workers responsible for monitoring the sanitation program, in order to ensure balanced coverage of the four rural communities of Bouaflé.

The sample size was determined according to the principle of data saturation. Indeed, after the initial survey, the data collection no longer revealed any new or significant themes for analysis in each community. Therefore, after three additional surveys, saturation was set at 44 households using UDDTs (Sustainable Wastewater Treatment Systems) in the villages of the Baoulé community, 17 households in the Yowlè community, 33 households in the Mossi community, and finally 64 households in the Gouro community. A total of 188 households were thus surveyed. This distribution allowed for consideration of the cultural and organizational diversity of the communities studied, thereby providing a better understanding of the factors influencing acceptance or resistance to productive sanitation in rural areas.

The 14 focus groups involved the various chiefdoms of the 14 villages surveyed. In each village, the focus was conducted with prominent figures and community leaders to explain the rationale for this study and to benefit from their support and moral endorsement. These interviews provided a better understanding of the village's realities, including the organization of the chiefdom, customs, values, histories, and their conception of productive sanitation. In addition, issues related to the reception of development projects and the acceptance of productive sanitation were addressed.

2.5. Data Collection Techniques

2.5.1. Direct Observations

This allowed us to observe the lived realities specific to the population and to sociologically understand the attitudes of our target population.

Direct observation was used in the exploratory phase of this work. It allowed us to observe the relationship between the chieftaincy and its community. Thus, we observed the community's submission to its chieftaincy, social cohesion within the communities, mobilization around the sanitation project, and the actions of the chieftaincy aimed at leading the communities to accept productive sanitation.

2.5.2. Group Interviews

The group interviews, or focus groups, were conducted with the various chieftain-

cies of the localities, which already constitute a group and could not be interviewed separately. During the interviews, each person spoke on each topic before moving on to the next. Sometimes, opposing viewpoints were encouraged when necessary to obtain interesting details. The focus sessions generally lasted between 45 minutes and one hour.

2.5.3. Individual Interviews

The heads of households benefiting from UDDT were interviewed separately using individual interview guides. These discussions provided information about the chieftaincy to understand its actual influence on the community and their households. The construction of toilets, their use, and the disposal of urine and feces from these toilets were also addressed.

2.6. Data Processing and Analysis

The processing of data from focus groups and individual interviews began with the transcription and organization of all verbatim transcripts and observation notes. Repeated review of this information allowed us to identify the first recurring ideas related to toilet adoption strategies. This data was then categorized by theme to identify commonalities, differences, and key ideas expressed by the respondents. Next, we compared the participants' statements with their actual practices in the field. The analysis used open coding to identify units of meaning, followed by axial coding to group the codes into broader categories (facilitating factors, barriers, community dynamics). Selective coding then allowed us to identify the central themes structuring the analysis. This methodological combination ensured a rigorous, systematic, and in-depth interpretation of the information collected from various stakeholders, including traditional chiefs, community leaders, sanitation workers, and members of local communities. In short, the interpretation of the qualitative data gathered during this research relied on thematic analysis, content analysis, and triangulation between different sources (interviews, focus groups, and observations). This analysis allowed us to understand how traditional chiefs make decisions, how they influence community members, and their attitudes toward productive sanitation. This qualitative approach helped us better grasp the often poorly understood cultural, organizational, and social aspects. It demonstrated that traditional leadership plays a key role in raising awareness and mobilizing communities, and that it can either facilitate or hinder the adoption of productive sanitation practices depending on its level of involvement and its perception of change. Thus, qualitative analysis has made it possible not only to understand the internal dynamics of traditional chiefdoms, but also to grasp the interactions between local knowledge and technical sanitation systems, paving the way for better integration of traditional actors into public policies for the sustainable management of toilets in rural areas

2.7. Ethical Considerations

This research was authorized by the sub-prefecture of Bouaflé and the various vil-

lage chiefs of the different communities. Anonymity and confidentiality were strictly maintained throughout this research.

3. Presentation of Results

3.1. Chieftom Organization

Field observations reveal that traditional chieftoms in the Bouaflé region are generally structured according to a standard model. This model includes the paramount chief, the sub-chief, notables, committee presidents, and association presidents. Most of the traditional chieftoms visited exhibit this organizational chart, which forms the basis of good governance. Indeed, a well-organized traditional chieftom is characterized by the selection of its members, its capacity for peaceful unity, and its flexibility in asserting dominance.

The traditional chieftoms included in our study are representative of all the neighborhoods that make up the locality, with the aim of ensuring effective information sharing, fostering a sense of belonging, and promoting the satisfaction of the population by identifying with and recognizing themselves within the chieftom, thus guaranteeing the sustainability of initiatives.

The traditional chieftoms are organized around the objective of developing their localities. They therefore take responsibility for leading their populations toward development. This is why they must seize the development project opportunities available to their communities. To this end, all the localities of the Baoulé, Gouro, and Mossi communities included in our study have a chieftom that readily welcomes development projects. However, in the Yowlè community, the situation is quite different. In some Yowlè villages, access to the chieftaincy is difficult, and information about ongoing activities is not disseminated to the entire population. The challenges of readily accepting development projects are evident within this community. This is reflected in the comments of a household head, K.B., whom we interviewed in Koubi, a Yowlè village.

“Not really, we welcome the projects, but we don’t get involved.”

3.2. Chief Leadership in Communities and a Perspective on Social Cohesion

➤ A Population Listening to the Chief

Implementing the productive sanitation project in these localities was feasible because the community listens to and submits to its chief.

When asked if their chief is truly listened to by their community, the Baoulé and Mossi unanimously answered yes. As for the Yowlè, nearly all of our respondents revealed that the chief is not listened to much in their households. Among the Gouro, nearly half of the household heads surveyed stated that they are not under the authority of a chief. Thus, some households in the community are reluctant to accept certain decisions made by the chief.

➤ Sanctions Against the Recalcitrant Population

As in any community, there are those who resist, and the chieftaincy puts sanc-

tions in place for them. First, laws are established to maintain cleanliness in the village. Then, sanctions are imposed on those who do not comply. These consist of paying fines according to the severity of the offense: 5000 CFA francs as a fine, or 5000 CFA francs and a pot of bandji (palm wine), or 5000 CFA francs, a pot of bandji, and a chicken or sheep, etc.

➤ Evaluation of Cohesion within Society

Social cohesion is the set of individual and collective processes that contribute to ensuring equal opportunities and conditions for everyone, fairness, and access to fundamental rights. It also contributes to ensuring social, economic, and cultural well-being, aiming to build a supportive and co-responsible society for the well-being of all. However, there are some villages where social cohesion is not always observed. This is the case in Dialè and Koubi, two villages in the Yowlè community. The reasons are explained here by K.H., a notable from Dialè, from whom we obtained the following statements.

“There are many who don’t recognize our leader. Because there’s another man there whom they want to put in his place. Currently, there are many people behind him. So, we can’t properly carry out the cleanup you’re talking about. Because if we speak out, many won’t act.”

In these localities, the chief’s decision is sometimes contested because there are other people who are just as listened to as the chief. This situation often presents itself as a source of conflict in challenged villages. Among the Yowlè, the majority of the population admits to listening to someone other than the chief. Among the Gouro, more than half of the households are likely to oppose some of the chief’s decisions. However, disobedience to established rules often leads to social unrest.

3.3. Strategies Implemented by Chiefs for the Construction of UDDTs

The construction of UDDTs in the surveyed households was largely influenced by the chieftaincy and the respect the people have for their elders. Thus, the chief’s intervention is of paramount importance in the construction of household latrines. To this end, the chieftaincy employed several strategies, including encouragement and awareness-raising meetings, and experimental plots.

The chieftaincy organizes encouragement meetings aimed at implementing peaceful awareness-raising activities on cleanliness and the use of UDDTs and traditional latrines. Awareness-raising remains the primary strategy used by the chieftaincy to encourage households to build a latrine. Seven (7) out of fourteen (14) villages acknowledge that the chieftaincy uses peaceful means of awareness-raising to ensure the success of the sanitation project.

The chieftaincy organizes field trials to verify the claims made on the ground. To this end, it organizes the community into small groups to establish experimental plots in order to observe the actual impact of urine and feces on plants. Several such experimental plots have been established in Kouakoublékro, Sinfla, Koubi, and Salifoukro. Sanctions are imposed on households that do not comply

with the chieftaincy's decisions. Overall, however, the communities are satisfied with the chieftaincy's actions to promote sanitation and hope that the chief will continue to maintain his influence over the population to ensure sanitation in the localities. The chief should therefore continue awareness-raising and encouragement strategies and impose sanctions on those who refuse to comply.

The strategies implemented by traditional chieftaincies to encourage their communities to accept productive sanitation have revealed the impact of local authorities on the development of their communities.

3.4. Perceptions and Attitudes of Traditional Leaders Regarding the Concept of Productive Sanitation

The UDDT is a little-known latrine introduced in our study area as part of the productive sanitation project. It is characterized by the use of excreta (urine and feces) to fertilize plants. The traditional leaders' perception of this new fertilization method is crucial to the project's success.

Generally speaking, the perception of excreta use in our study area is negative. This is evident in the comments of D.K.P., gathered during our surveys in Sinfla.

"I go with it very early in the morning. Because if you wait until daylight to go out and put dung fertilizer in your field, you'll find someone who will laugh at you. 'Oh, Pierro... what's the matter? Is that dung behind you this morning?' That's how it is."

In most villages across the different localities, the chiefs interviewed acknowledge that the use of excrement is frowned upon. And overall, all the villages surveyed agree that the use of urine and feces is not viewed favorably. It is considered embarrassing, repugnant, especially for fertilizing plants that can be consumed.

The perception held by chiefs and their communities regarding the use of excreta in agriculture may stem from sociocultural representations of this waste that offend social sensibilities. Indeed, the principle of using UDDTs is the management of excreta in the toilet, which involves defecating and applying ash to the feces to facilitate composting. This is compounded by the transport of drums of feces and containers of urine to the fertilization site, the repugnance associated with handling excreta when applying it to plants, and the idea of consuming the products resulting from this fertilization. This entire mechanism of UDDTs use, which clashes with the customs and traditions of the communities, is further complicated by the chiefs' desire to persuade their communities to adopt it for several reasons. First, they benefit from free organic fertilizer to enhance their agricultural productivity and generate economic development. Second, they promote the sanitation of the immediate environment because by using urine and feces, the problem of open defecation is resolved, and finally, fecal-oral diseases are reduced, thus guaranteeing the health of the population.

The chiefs perceive productive sanitation as advantageous and are genuinely involved in the project, leading their communities to accept the principle in order to generate development. The communities are most often involved with organic

fertilizer. Indeed, a difference is observed between chemical fertilizer and organic fertilizer derived from urine and feces. This difference is evident in the cost of fertilizer, plant growth, productivity, and so on. This is what D.B.J., a notable from Blanfla, explains in these terms.

“We don’t use fertilizer on everything ourselves. Because our land is good. We have the lowlands and all that. But when it’s cocoa, we have to pay for fertilizer. We buy it, and when we sell the cocoa, we pay back the cost. But fertilizer for manure, that works well too, and there’s no credit involved. When we sell, all our money stays with us.”

The ECOSAN toilet, although advantageous, also has several drawbacks, including the cost of the latrine and its entire operating mechanism, from handling the collection of urine and feces in the latrines to applying it to the plants. In this regard, T.N., a notable from Sinfla, said this.

“Actually, when we say ‘poop,’ we don’t use ‘bo’ anymore. It’s impossible to poop and play with it. You can’t mix ash with poop, it’s very bad. It’s a curse that can bring death.”

In the Baoulé community, we also found K.K.F., a member of the chieftaincy, who revealed the socio-cultural realities that the UDDT opposes and how the Baoulé community perceives them.

“We say that ash is bad to put on poop. We use it to catch bad people. It’s a curse. Hot ash or embers. It’s a curse.”

From these statements, it appears that the mechanism for using the latrine goes against the customs and traditions of the communities, who themselves are committed to adopting it for reasons of cleanliness and to obtain free organic fertilizer.

Apart from the Yowlè, who are not largely interested in the sanitation project in their communities, all the chiefs interviewed unanimously agreed with the idea of using excreta. In the Baoulé, Gouro, and Mossi communities, all members of the chieftaincy have built a communal latrine in their homes, except in one Mossi village where a notable still uses a traditional latrine for reasons he cites as cultural. However, it is culturally awkward for the chiefs to discuss feces and defecation in public or within their communities, even though they are genuinely interested in the fertilizer it produces. This interest in organic fertilizer may cover up the belief that using excreta is a solution to the problems of their plantations. Indeed, fertilization with urine and feces has allowed the improvement of old or diseased cocoa plantations. This is evident in the testimony of D.K.B, a young planter from Kouakoublekro, in these terms:

“Since the pee and poop fertilizer arrived, I can see it, but I haven’t had the courage yet because of the smell. But when I saw that my cocoa was dying a little bit, they say it’s called shoolen shoot. Well, I thought, I’ll go pay for its medicine, but I don’t have the money. I thought, I’ll put pee on it, what they said, try it and see. Thank God it worked. The woods next door, like that, are starting to become normal. There’s even fruit starting to grow on them. When Professor Gnagne came here, with your colleague who came to show us, Mr. Yapi, they took a picture

of it.”

Raising the profile of plantations inevitably means increasing income. To this end, all Baoulé and Mossi villages agree that their agricultural income is increased by using urine and feces on the plants.

Moreover, the Gouro and Yowlè communities still remain uncertain or somewhat skeptical about this productive farming practice.

It is therefore clear that the chiefdoms and their communities are going beyond their customs and traditions to adopt productive sanitation, which presents itself as both a beneficial sanitation and farming practice.

4. Discussion

The study revealed the organizational structure of the chiefdoms in the rural area of Bouaflé. Indeed, the chiefdoms are structured around a standard model that presents the chief and his advisors, composed of a central chief, a sub-chief, other advisors, and presidents of committees and associations. This core group is selected to be representative of the community, ensuring effective information sharing and fostering social cohesion. This study aligns with that of [Koné \(2015\)](#) and [Wassedo \(2024\)](#), who also present the social and political organization of the Senufo chiefdom and its roles within their communities.

In the rural area of Bouaflé, communities that are highly cohesive readily embrace development projects, while communities with leadership issues and difficulties in reaching agreements struggle to achieve consensus around a development program. It is clear that social cohesion within a locality is a priority for socio-political development, around which traditional leadership is organized. This issue was raised by [Avenel and Sanchez \(2013\)](#), who links social cohesion and urban development.

According to the study by [Flan et al. \(2021\)](#), a large majority of citizens (69%) in Côte d'Ivoire believe that traditional chiefs act in the best interests of their community, which reinforces their legitimacy and the obedience shown to them. Here in our study area, obedience to traditional authorities is based on customary legitimacy. This explains why we see that the Baoulé and Mossi, who have a culture of kingship, dominance, and submission, are entirely subservient to their chieftaincies, while the Gouro, who are customarily led by a collective of elders, can challenge certain laws established within the society. The texts by [Meillassoux \(1999\)](#), shed further light on this social reality.

Among the Yowlè, this phenomenon is explained by the fact that the people are linguistically and culturally very close to the Gouro. This could foster cultural influences that allow some households to oppose the leaders and the prescribed laws. However, as [Rousseau \(1762\)](#) stated, liberty is obedience to established rules. When a community chooses a leader, it must be capable of submitting to him. This is the key to peace and social cohesion. Furthermore, the roles and responsibilities of the traditional chief are numerous, given the relationships he maintains with the deities, the administration, and the people under his authority. This is

why he needs strong social cohesion within his community to facilitate his actions. To this end, [Pérrot \(2009\)](#) presents the firm recommendation of King Boa Kouassi III of Abengourou as a factor in preventing the outbreak of the 2002 military-political crisis in the eastern regions (Abengourou), characterized by community diversity imbued with exemplary social cohesion. She thus links the chief's authority to social cohesion, demonstrating that the social stability of a locality depends on a perfect correlation between these two elements.

Peaceful governance in rural areas is a tool for development and social cohesion. The writings of [Bagoyoko and Fahiraman \(2017\)](#) reveal the practice among traditional chieftaincies of using peaceful means to resolve crises. This study therefore aligns with their work by demonstrating the peaceful strategies used by traditional authorities to encourage their communities to use human urine and feces as agricultural fertilizer. The activities of the chiefdoms in our study area fall within the vision of [Mermet et al. \(2005\)](#) who also presents strategies for good environmental management.

However, good governance cannot be reduced to peaceful actions alone. To this end, communities also, and above all, want the chief to be more involved in raising awareness among households by establishing laws, sanctions, and fines for recalcitrant households that boycott prescribed activities and laws. According to the study conducted by [Flan et al. \(2021\)](#), in Côte d'Ivoire, one in six people (60%) want the influence of traditional chiefs in local governance to increase "a little" or "a lot." The study by [Dekane \(2024\)](#) demonstrates the role of customary sanctions in promoting peace among the traditionalist Moundang people of northern Cameroon. The involvement of the chieftaincy is therefore crucial. It proves to be methodical and strategic, as the quality of the relationship between the chieftaincy and the committee members is relatively important for the implementation and success of the sanitation project in the locality.

The analysis also showed that the main obstacles to adopting productive sanitation stemmed from community skepticism, often linked to a lack of understanding of the excreta valorization process, as well as deeply ingrained cultural taboos surrounding the perception of human excreta. The work of [Taro et al. \(2022\)](#) sheds light on this by showing that the technical acceptance of such an innovation depends on social acceptance.

Faced with these obstacles, traditional leaders adopted various adaptation and persuasion strategies, thus demonstrating their strategic role in social transformation. To this end, hygiene awareness and excreta valorization strategies were implemented, supported by experimental fields to assess the performance of the ECOSAN method presented to the population. This community mobilization, which brings together chiefs and populations and is clearly observed in this study, was also addressed in the work of [Boasinke and Braimah \(2022\)](#) to illustrate the commitment of institutions to sanitation and water management.

The adoption of productive sanitation confronts communities with their customs and traditions, which they often have to reassess to integrate new, more sus-

tainable and hygienic practices. *Ejigu and Yeshitela (2024)* also explain how social perceptions, norms, and local leaders facilitate overcoming cultural resistance to ECOSAN.

5. Conclusion

This study assessed not only the organization of traditional chieftaincies around the sanitation project, but also measured their impact on the communities they lead, by presenting the strategies they implement to encourage their communities to accept the productive sanitation project. The study first revealed that the chieftaincy in rural Bouaflé is structured around a standard hierarchical structure composed of a central chief, notables, and leaders of associations and committees. This inclusive organization promotes equitable representation of the different neighborhoods and serves as a lever for cohesion and mobilization for local development.

The analysis also highlighted that the chief's leadership, based on customary legitimacy, plays a crucial role in social cohesion and the acceptance of productive sanitation. Villages where the chieftaincy enjoys strong recognition demonstrate a greater capacity for adaptation and better ownership of the productive sanitation project. Conversely, contexts marked by rivalries or contested, Furthermore, the strategies implemented, such as awareness campaigns, community meetings, experimental plots, and deterrent sanctions, have demonstrated the effectiveness of traditional chieftaincies in promoting behaviors favorable to productive sanitation. Thus, the results of this study show that traditional chieftaincies are a key lever for facilitating the acceptance and adoption of productive sanitation in rural areas, thanks to their internal organization, their custom-legitimized leadership, and the community mobilization strategies they implement. The analysis nevertheless reveals that the main resistances stem from community skepticism and the fact that adopting productive sanitation directly confronts populations with their customs and traditions, creating hesitation and tension between tradition and innovation.

Despite this resistance, through awareness campaigns, participatory approaches, and experimental plots, the chieftaincies succeed in demonstrating the agricultural effectiveness of fertilizers produced through productive sanitation, thereby leading their communities to move beyond their customs and traditions to embrace the innovation. However, while their influence remains crucial, it is not sufficient on its own to guarantee the long-term success of sanitation projects in socio-culturally sensitive contexts. The sustainability of these initiatives depends on strengthened cooperation between traditional authorities, technical services, community organizations, and development actors gitimacy hinder collective dynamics and limit the adoption of the project.

Finally, future research could further explore how customary norms, social dynamics, and innovation mechanisms interact in the adoption of sanitation solutions in rural areas, in order to more precisely identify the sociological conditions

that promote the sustainable appropriation of productive sanitation.

Acknowledgements

This study was conducted within the framework of the Millennium Water and Sanitation Program (MWAP) EDF/2012/024-14 with the Pan-African Intergovernmental Agency for Water and Sanitation in Africa (WSA). We extend our thanks to the people of the various Gouro, Baoulé, Mossi, and Yowlé communities in the Bouaflé region who contributed to this work.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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