

COMMUNICATION AND APPROPRIATION OF PRODUCTIVE SANITATION IN THE VILLAGE OF NAPALGUÉ IN THE RURAL COMMUNE OF DAPELOGO (PROVINCE OF OUBRITENGA, BURKINA FASO)



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ABSTRACT

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Productive sanitation has been introduced in Burkina Faso at the end of years 2000. It aims to introduce using of latrines in rural areas, by the presupposition that productive sanitation can help solving the problem of autonomous sanitation and facilitate food self-sufficiency. For that, many community development projects have been developed and enabled the construction of more than 12000 Ecosan latrines in rural area. To enable the adoption of the ECOSAN by rural populations, a strategy of communication for behavior change has been set up. The general objective of the current study is to evaluate the importance of communication in the appropriation of Ecosan latrines by all the social stratum of the population at Napalgué. In a specific way, it has been to determine the role that communication had in collaboration with all the stakeholders, to ensure a good implementation of the project in the village of Napalgué.

Contribution/ Originality: This study is one of very few studies that have studied the link between communication and appropriation of Ecosan latrines in the rural environment. This study highlights the primordial character of communication for the change of mentality and behavior for the appropriation of latrines in rural environment.

1. INTRODUCTION

Water and sanitation sector in Burkina Faso is marked by a diversity of programs and plans of actions, implemented by the government and its partners. These different plans have been taken after the engagement of Burkina Faso in the Millennium Objectives for Development. In this dynamic, they had the elaboration of the National Program of drinking water supply and sanitation (in French PN-AEPA) from 2006 to 2015. In 2015, Burkina Faso subscribed to the 17 Sustainable Development Goals wherein the objective number 6 aims to “ensure availability and sustainable management of water and sanitation for all.” The National Plan for Economic and Social Development 2016-2020 (PNDES in French) is the new referential of development of Burkina Faso, which takes over from the Sustainable Development Strategy of Accelerated Growth (SCADD in French), that ended in 2015.

This new referential considers issue of sanitation and has a strategic objective for it. In his axis 2 “developing the human capital”, the PNDES attaches a great importance to the issues of water and sanitation through the specific objective number 5 which is “improve the living environment, the access to water, sanitation and to the energetic services of quality” (Burkina, 2016). The problem of soil fertilization faced by rural populations leads to the question of sanitation being addressed in a "productive sanitation" approach.

Productive sanitation, called ecologic sanitation is an integrated approach trying to take into account the cycle of sanitation in its entirety, including the valorization of excreta in agriculture. This approach considers urine, faeces, wastewater, stormwater and organic residues of households as "endogenous resources" to be treated in order to value them for agricultural production (UNESCO *et al.*, 2006). In Burkina Faso, productive sanitation has been introduced in 2011 through the regional Centre for drinking water and low-cost sanitation (CREPA in French). This center has initiated a Sub-regional ecological sanitation program (Compaore, 2016). The technologies as Ecosan latrines, urinal of type Bidur and impluvium have been spread out through diverse projects to meet sanitation needs of Burkina populations in rural area. However, in Burkina Faso, the most widespread technology remains Ecosan latrines.

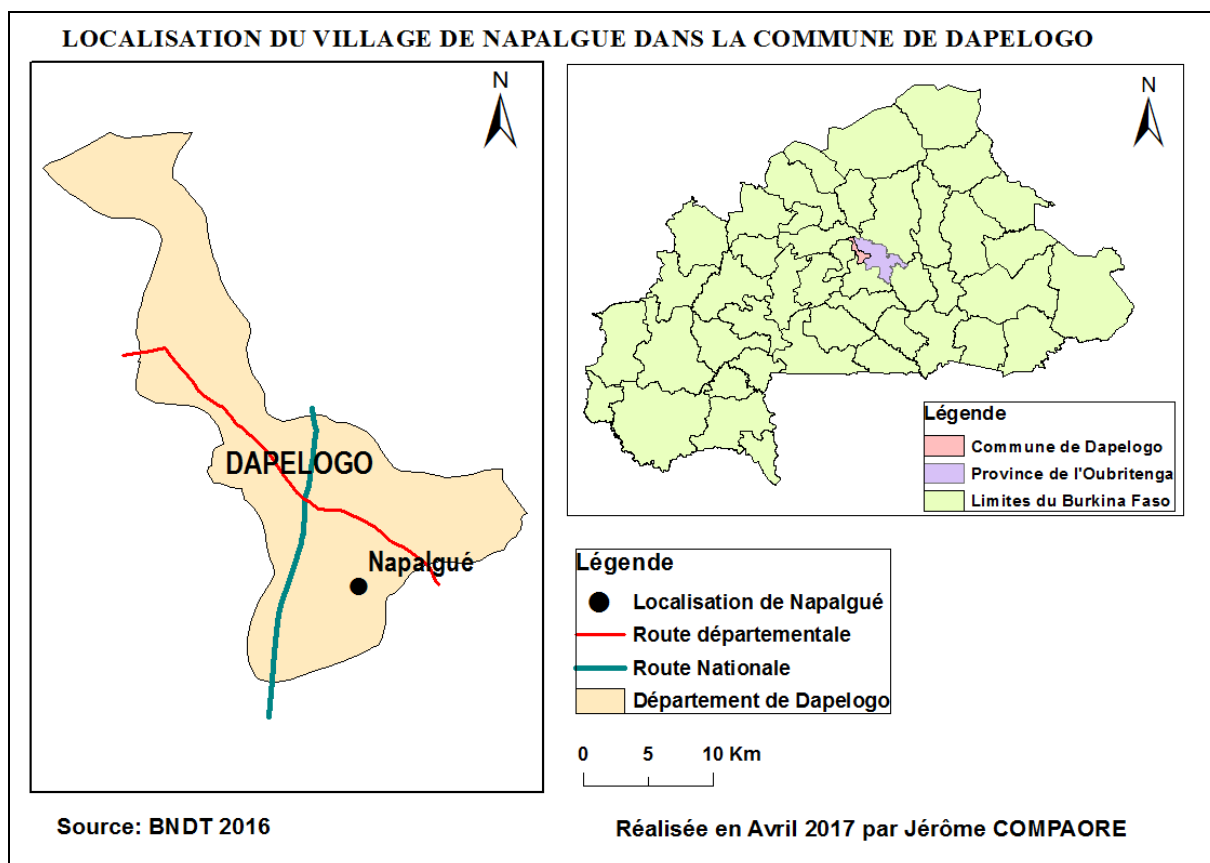
More than 10 years after the implementation of the first Ecosan latrines in Burkina Faso, more than 12000 latrines have been constructed through 11 projects implemented (Sawadogo, 2015). This allowed to an important fringe of rural population to benefit from these technologies in order to solve the problem of defecation in nature and bring down the problem of food insecurity through the increase in value of derivative products of those latrines in agriculture.

In 2016, on the national level, it is said that almost 82, 18% of households who got latrines go on using them, therefore, there is always a problem in the appropriation of Ecosan latrines by the different social stratum of the population. Indeed, it stands that, only 33, 88% of women use permanently the Ecosan latrine in rural area (Compaore, 2016). This is the context in which the present article stands for. Communication actions could have a great contribution for a behavior change of women, hence the following question: How did communication, through a participative process of the different stakeholders, contribute to give a keen interest in the use of Ecosan latrines?

2. METHODOLOGY

The surveys took place in the village of Napalgué. Napalgué is located at around forty (40) km in the north part of Ouagadougou, in the province of Ouhimbide, precisely in the rural commune of Dapelgo. According to the communal plan of development of Dapelgo, the population of Napalgué was estimated at 387 inhabitants in 2015. The main activities of the village are agriculture and breeding. About sanitation section, the commune of Dapelgo, through its communal plan of development (PCD in French) had estimated the need in latrines of Napalgué to 21 latrines to build by 2015. In that frame, the commune got the financing of two projects namely “APS project” and “LVIA project”. Those projects realized respectively 4 latrines and 20 latrines in the village, fulfilling the projection of the communal plan of development (PCD in French). For this study we have been interested in the 20 latrines built by LVIA because they are Ecosan latrines.

Map: Location of the commune of Dapelgo and the village of Napalgué



To achieve the objectives of the research, a mixed methodology has been adopted to collect the information. It was an approach combining qualitative (interview and direct observation) and quantitative method. The aim is to arrive at a fine reading of the influence of the communication strategy implemented by the stakeholders, and social representations in the adoption of productive sanitation in the village of Napalgué. So, semi directive interviews supported by an interview manual have been realized by households, in the objective to understand their perceptions of productive sanitation, their reception of the strategies of communication used by the porters of sanitation projects. For the qualitative approach, the targets are the responsible of the technical service at commune, leaders of sanitation projects and local leaders in order to evaluate the effectiveness of the entire communication strategy developed during this project and to evaluate the communication capabilities for the change of behaviour of the local team.

The qualitative component was supplemented by a questionnaire survey to the households. It was a connection between the socio-demographical characteristics of household and the adoption of productive sanitation. The survey has involved the households that adopted the sanitation, and those that didn't. Then, the mixt methodology allowed tackling all the aspects that contribute to the appropriation of the sanitation in rural area.

The questionnaire has been given to 30 households chiefs, divided up among: 20 households' chiefs having adopted the sanitation, 10 households' chiefs who did not adopt it. Related to interviews, they have been realized to 3 religious leaders, 3 project managers of the productive sanitation, 1 leader of the communal administration, 2 responsible of the communal executive. It was then in total 49 people who have been questioned during this study.

The collected data has been processed statistically and a content analysis. Qualitative data have been processed through Excel.

3. RESULTS

3.1. Productive Sanitation: Response to Hygiene and Sanitation Issues in Rural Areas.

Sanitation is a central issue in populations' lives, particularly rural ones. Populations do not have access to quality services of sanitation. In *Diagnostics des infrastructures nationales en Afrique*, Morella et al. (2008) show that the improved types of latrines do not cover more than 20% of the global population. Curiously, the prevalence of improved latrines doesn't exceed the prevalence of septic tanks, even if there is a difference in substantial cost between the two. The situation is not one of the best in the village of Napalgué, where, before the coming of the project, 90% of the population did not have autonomous sanitation infrastructure. For the project managers, this situation is perceived as a public health problem that should get a solution. Indeed, without sanitation infrastructures, inhabitants were defecating in the nature with all the problems that can be provoked. Since then, the advent of Ecosan latrines in the village of Napalgué is considered as the solution to these problems. It is in this logic to fight a harm that the structures project holders of sanitation decided to act in Napalgué. So, the actors' holders of intervention projects in the domain of sanitation put in place a strategy of communication-information aiming at sensitizing, motivating and orienting populations towards the use of Ecosan latrines. Therefore, it is good to say that a preparatory diagnostic has been done in order to find the domain of intervention that matches up with populations' needs. This is what we retain from the words of the responsible of technical service of the commune of Dapelgo, *"the UE LVLA has met the hygiene and sanitation concerns of the village of Napalgué because the project is based on the needs of the communal plan of development."*

The communal plan of development has been developed in a participative approach, thus, the choices based on this document are choices coming from populations.

Besides, from what the inhabitants said, the realization of productive sanitation at the profit of rural populations meets their need. The communal plan of development has been considered as a way to get access to the difficulties of the populations in diverse sectors. According to a 46 years old woman, *"we have noticed after the construction of latrines that defecation in nature has reduced because the practice continues, that rainy season diseases have reduced, because vegetables are clean and not contaminated."* Another woman of 28 years old *"Before, for us, I mean women, we had to go far away in the bush to toilet, now, with the Ecosan latrines the distances to go to toilet are reduced."* When we analyze these talks, we notice that populations had already a problem of sanitation, even if that problem had not been raised as a request. From the interviews, we retain from the populations that the increasing scarcity of bushes, and demographic growth made difficult the conditions of defecation. That required finding a solution. The arrival of the project, in this logic can be considered as a kind of click that led populations to take into serious sanitation issues. Populations, when they talk about technology, mention its positive aspects: saving energy and time. From now on, they move less, and they can benefit from the remaining time and do other activities. Populations' satisfaction fits also with one of their expectations which is the reduction of chores linked to their moves for call of nature.

This talk shows that productive sanitation throughout Ecosan latrines contributes to the well-being of populations on the health plan. Besides, apart from contributing to the hygiene of populations, the sub-products of latrines Ecosan that is the urines and faeces after hygienization, are used as organic enrichment for cultures during rainy season



Figure-1. Latrine Ecosan with at the back the sensitization agents and beneficiaries

Source: From author; current study

This picture is realized by the author in April 2017.

3.2. Communication around Productive Sanitation

The success of every project which targets a behavior change lies on an efficient base of communication (Compaore, 2015). Communication is essential in every social process, especially the ones aiming at the adoption of new attitudes. Besides, when we follow the axiom of Watzlawick, we know that “we cannot prevent from communicating”. Communication allows to create the contact with populations and exchange messages (Bahimba Kalimurhima Bernard, 2011). The type of communication adopted in the village can be considered as the

communication for development. That one is “a planned action, based on participative processes in one part; and, in the other part on medias and interpersonal communication that facilitates dialogue between different participants gathered around a problem development, or a common goal, in order to identify and to implement a concrete initiative to find a solution for the problem or reach the goal, and that supports and accompanies this initiative.” (Bessette, 2004). In the village of Napalgué, the strategy of communication consisted in a connection between the populations and the technical services and the project holders’ actors. By transforming the vertical approaches based on unilateral transmission of information and on persuasion, to approaches based on knowledge exchange, communication for development enables the groups and the communities to tackle problems that they face, to identify possible solutions, to take good decisions, to acquire necessary knowledge, to get mobilized for the action and be the leaders of their own development (Bessette, 1996). The objective of this type of approach is to facilitate awareness of the problem, together look for sustainable solutions. Then, from the connection with populations, practical knowledge about sanitation have been raised, co-constructed that have been spread out and transferred to populations. For Gumucio (2001) the implication of beneficiaries is fundamental in the success of projects. He shows that “*Many projects have failed because they had a vertical implementation and planning; and lots of funds have been given to developing countries without reaching the designed ‘beneficiaries’, until the finance institutions have understood that they were wrong. If only, since the beginning, they had included the beneficiaries.*” The inconvenient of these top-down approaches have been demonstrated by Macbride (1980).

At Napalgué, two approaches of communication have been combined. The first one which is a step of education and sensitization is done within the groups of villagers and technicians. The project takes it as axiomatic that “*in terms of communication, the good practices that allow to pass messages in a better way are the focus groups, door to door sensitization, theatres campaign and reports meetings.*”(Technical service manager of the commune of Dapelgo). Thus, a strategy of communication with two steps has been implemented.

The first one is the community sensitization or “village meeting”. It is co-led by the project team and the first leaders of the village. It gathers the inhabitants of the village to present the project, the Ecosan latrine and to answer to the different questions. After the presentation of the latrines by the animating team, 4 people are designed in the village to be trained and play the role of endogenous animators. This is a participative approach, and an approach of making populations responsible. Populations get the information through a mixt team that plays the role of sensitizing agent. The other point of this strategy of communication is to make local actors responsible. It consists in a kind of transferring technologies with actors chosen by the community as main constructors. For that, it is good to show them the advantages and dangers of technology. Patinet (2010) who had conducted a mission on productive sanitation in many countries including Niger and Tchad shows all the importance of information-sensitization in the basis process of this technology in the villages: “to accompany villagers, there are also tools for a better master of the entire AP channel. The tool “*hiatus history*” shows the good and the bad maintenance of a latrine and the tool “*Three batteries card*” transmits the good way to stock and re-use the excreta” (Patinet, 2010). The advantage of this type of approach is that the beneficiaries are involved along the process, and in a practical way, they discover the technology in a whole.

The second strategy of communication, which is in reality a continuum of what has been done in assembly, is called “home sensitization” or “home visit”. It is assured by the members of the project team and endogenous animators called “hygenists” in the village. This sensitization has been done in all the houses of the village, in order to explain better the concept of Ecosan latrines. In this round, the team has more time to answer to populations questions. This approach has an influence on the understanding of latrines and their adoption. This woman of 33 years olds explain how she understood the meaning and the impact of latrines due to this approach: “*when it is a meeting with the all village to discuss about latrines, we did not understand well. But during home sensitizations, we asked questions to understand better the Ecosan latrine.*”

The presence of the local actors in the sensitization team has facilitated the reception of the message. They were familiar to the populations; the choices of words locally used have contributed to pass easily the message. Besides, it is what we consider from the talk of the board villagers development of the village: *“when the sensitization was done by the project team, populations did not ask many questions and were not confident, but during the home sensitization by the endogenous actors, populations were at ease because it was people from their village that sensitized them, so they could ask all kind of questions.”* It is also the point of view of Ouedraogo (1992) who said: *“a project of development is generally the meeting between the endogenous and the exogenous, a synergy of 4 social forces; populations, executive agents on the field, help agencies and political and administrative”*. Moreover, for Freire (1970) *“the only one vertical transfer of knowledge from an authority (top) to a passive receiver (down) does not enable to influence or to change the society, or to consider people as having a critical and autonomous awareness”*. Here, the working out of the strategies of communication shows that a transfer has been privileged at two levels: co-construct the importance of latrines with the populations and lay on them to diffuse knowledge. In the approach, there was not a top in terms of knowledge that transfers that knowledge to a passive public. There was a holist construction of knowledge with a group of local populations and technicians, and then a sensitization for the adoption of latrines.

Even if the efficiency of the communication is due to its strategy, the tools used have been also important. In the village of Napalgué, the tools used were the PHAST KIT (pile of pictures) and the guidebook for the use of latrines. The PHAST kit is composed of a pile of pictures showing real cases for the use and the support of latrines is the job of endogenous animators for the sensitization in households. So, it is a communication through pictures that has been adopted in the frame of latrines Ecosan.

Sensitization through pictures has been good for the populations who affirm that they have really understood practices, advice that they already had orally. The interviewers show their understanding of productive sanitation through the use of pictures in the strategy of communication. For Zourata, a 50 years old woman: *“the oral sensitization about the use of Ecosan latrine was not clear, therefore, the sensitization with pictures allowed us to understand better the messages because the pictures show us the reality to follow.”*

3.3. Communication: A Key to the Appropriation of Ecosan latrines in Napalgué

Ecosan latrines technology is seen as an innovation to resolve sanitary issues in rural areas. If technically, this invention proved its relevance, the task remained to make it accepted by populations. It is because of that the choice of a communication strategy was considered more than essential. Ecosan latrine is intended for all parts of rural populations. It is the fringe of the population that is exposed to health problems related to the non-use of latrines but also has huge needs of fertilizers for soils. In the concept of productive sanitation, we must consider waste such as urines and faeces as endogenous resources. We must collect them and then reuse them through a sanitation process under a hygienic way like organic fertilizers. To do so, a type of communication which eliminates some prejudices related to faeces and defecation was necessary. A meticulous observation of communication strategy from actors enables to understand that what is searched out is to remove cultural barriers which impede the adoption of Ecosan latrines and the collection of urine and faeces. In speeches and individual addresses to strategic actors, some local referents are mobilized. We are trying to demonstrate how the fact to defecate in nature can constitute waste. The risk of unhygienic excreta has an important place in the discourse of awareness. The behaviour change through latrines adoption is a direct consequence of the change in attitude of population (Girandola and Joule, 2008). Morella et al. (2008) acknowledge a change in Burkinabe populations' attitudes towards latrines. They place Burkina Faso in the group of countries having experienced an increase in the rate of its citizens using latrines: *“ a second group of countries (Burkina Faso, Madagascar, Rwanda) managed to have 3% of the population every year use a kind of improved latrine”* (Morella et al., 2008). It should also be noticed that the rate of current users of Ecosan latrines in the village of Napalgué is 80%.

In this context, what we must determine is the construction of communication strategies and the implementation of efficient communication tools (Rakotovololona, 2008). By these two pillars the change of mentality occurs in a rural context. It is also important to capitalize good practice of communication in previous projects and programs and rethink communication strategies (Maxwell and Farmer, 2013). A survey in the field enables to say the high rate of Ecosan latrines adoption is strongly related to communication strategies and tools implemented in the village of Napalgué.

The project promoters were able to implement a communication strategy involving local technicians and leaders, which allowed convincing populations of the appropriateness of the adoption of technology. If Ecosan is being accepted in the village of Napalgué, it is mainly due to its communication strategy which used a lot of pictures. That means practical cases presentation through pictures is a good means of information transfer. Assuming the real objective of any development effort is to reinforce communities' capacities to take care of their own development; communication adopted in Ecosan context seems to be the most adapted.

4. CONCLUSION

The results of research show that through a special approach, Ecosan Project has been able to convince populations of the village of Napalgué to adopt productive sanitation. The adopted approach consisted in analysing adopted communication strategies and discussing with population to see the reality of the project implementation. Communication is a key to a technology appropriation if it considers large situations related to each part of populations.

Results show communication strategies implemented in the Ecosan latrines construction project had success and should serve as an example for the implementation of future project. Many persons have already adopted productive sanitation. In general, communication strategies in the community development project are intended to the public that is, population in group. That survey allowed to show the necessity to divide appropriately communication strategies for all different parts of society for a better understanding of demands and ensure a real impact on the target community. Finally, that survey showed that for any project success in a community, the involvement of local actors in communication strategies contributes strongly to the adhesion of population. communication strategies should contribute to projects success and appropriation.

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REFERENCES

- Bahimba Kalimurhima Bernard, 2011. Impact de la communication pour le développement dans le changement de comportement en zone de santé d'Uvira. Université Ouverte/CIDEP.
- Bessette, G., 1996. La communication participative pour le développement en Afrique de l'ouest et du centre: Vers un agenda d'intervention et de recherche. IDRC. Retrieved from http://www.idrc.ca/fr/ev-30908-201-1-DO_TOPIC.html [Accessed 17 Mai 2017].
- Bessette, G., 2004. Communication et participation communautaire: Guide pratique de communication participative pour le développement. Laval, Presses de l'Université de Laval.
- Burkina, F., 2016. Plan national de développement économique et social (PNDES) 2016-2020: 9.
- Compaore, B., 2016. Assainissement productif au Burkina Faso: Etat des lieux et proposition de technologie pour la mise en œuvre à grande échelle. Mémoire de Master d'Ingénierie de l'eau et de l'Environnement, 2ie.
- Compaore, J., 2015. Communication and appropriation of autonomous sanitation at Girgo, A village of the urban commune Of Kombissiri, Burkina Faso new media and mass communication, 44: 92. Retrieved from www.iiste.org.
- Freire, P., 1970. Pédagogie des opprimés. Paris (France): Maspero.

- Girandola, F. and R.-V. Joule, 2008. La communication engageante. *Revue Electronique de Psychologie Sociale*(2): 41-51. [View at Google Scholar](#)
- Gumucio, A.A., 2001. Ondes de choc: Histoires de communication participative pour le changement social. New York, Rapport de la Fondation Rockefeller.
- Macbride, S., 1980. Voix multiples, un seul monde: Rapport de la commission internationale d'étude des problèmes de la communication. Paris (France): Unesco et Nouvelles Editions Africaines.
- Maxwell, T. and Y. Farmer, 2013. La communication engageante au service des changements de comportement en matière d'éthique. Cas d'une recherche-intervention dans la ville de Montréal. *Communication, Information, Medias Théories Pratiques*, 32(2). [View at Google Scholar](#)
- Morella, E., V. Foster and S.G. Banerjee, 2008. Diagnostics des infrastructures nationales en Afrique, Banque mondiale et le SSATP.
- Ouedraogo, H.B., 1992. L'appropriation des projets de développement: Le cas des micro-réalisations au Burkina Faso. Actes et instruments de la recherche en développement régional, N°9, Université du Québec à Rimouski.
- Patinet, J., 2010. Assainissement écologique du Niger au Tchad compte rendu de la visite au Niger: Apports pour le volet « WASH » de l'OPAT.
- Rakotovololona, S.J., 2008. Communication et mobilisation sociale pour un changement de comportement en eau, assainissement et hygiène. Mémoire de, Université d'Antananarivo.
- Sawadogo, K., 2015. Ecosan Burkina Faso: Scale and learnings. *Communication in AfricaSan 4* Dakar: 8.
- UNESCO, IHP and GTZ, 2006. Capacity Building for Ecological Sanitation: Concepts for Ecologically Sustainable Sanitation in Formal and Continuing Education.

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