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# VICTORY AGAINST MALNUTRITION PLUS (VIMPLUS) WASH MARKETS ASSESSMENT REPORT

June 2020

#### DISCLAIMER:

This report is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of Save the Children and do not necessarily reflect the views of USAID or the United States Government.

ViMPlus is part of USAID's Resilience in the Sahel Enhanced II (RISE II) initiative, which supports vulnerable communities in Burkina Faso and Niger to effectively prepare for and manage recurrent crises and pursue sustainable pathways out of poverty.

This report was prepared by Ali Dissa and Zakari Bouraima contracted by Save the Children under the Victory Against Malnutrition Plus (ViMPlus) Activity. This report and the ViMPlus activity are made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the terms of the Cooperative Agreement No. 72DFF18CA00008. The contents are the responsibility of ViMPlus and do not necessarily reflect the views of USAID or the United States Government.

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#### **ACRONYMS**

AEPS Simplified Drinking Water Supply

CLTS Community Led Total Sanitation

DGA Direction Générale de l'Assainissement (General Directorate of Sanitation)

ECOSAN Ecological Sanitation

MOC Maitrise d'Ouvrage Communal (Municipal Project Management)

NGO Non-Governmental Organization

ODF Open Defecation Free

OCADES Organisation Catholique pour le Développement et la Solidarité

ONEA National Office for Water and Sanitation

PCD-AEPA Plan Communal de Développement-Approvision en Eau Potable et

Assainissement (Communal Development Plan - Drinking Water Supply and

Sanitation)

PNB Programme National de Biodigesteur

TFP Technical and Financial Partners

SCI Save the Children International

SDG Sustainable Development Goals

SME Small and Medium Enterprise

SWOT Strengths, Weaknesses, Opportunities and Threats

VDC Village Development Committee

ViMPlus Victory against Malnutrition Plus

VIP Ventilated Improved Pit

WASH Water Sanitation and Hygiene

WUA Water Users Association

# **TABLE OF CONTENTS**

ACRONYMS	3
TABLE OF CONTENTS	4
LIST OF TABLES	5
LIST OF FIGURES	6
EXECUTIVE SUMMARY	7
INTRODUCTION	11
METHODOLOGY	12
RAPID DESK REVIEW	12
FOCUS GROUP DISCUSSIONS	13
INDIVIDUAL INTERVIEWS	13
HOUSEHOLD SURVEYS	14
DATA MANAGEMENT AND ANALYSIS	14
RESULTS	15
RESULTS FROM THE RAPID DESK REVIEW	15
GLOBAL LESSONS LEARNED FROM MARKET BASED SANITATION (MBS)	15
IDENTIFICATION OF OTHER MBS ACTIVITIES IN BURKINA FASO	18
RESULTS FROM THE DATA COLLECTION	20
RESULTS FROM THE HOUSEHOLD SURVEY	24
CURRENT HOUSEHOLD DRINKING WATER PRACTICES	25
TYPES OF LATRINES USED BY HOUSEHOLDS	26
HOUSEHOLD DECISION MAKING AROUND WASH PRODUCTS	28
BARRIERS AND FINANCING OF LATRINES	28
KEY INFORMANT INTERVIEW RESULTS	29
MAPPING OF RISK AND MITIGATION MEASURES	36
DISCUSSION	37
LIMITATIONS OF THE STUDY	38
CONCLUSIONS AND RECOMMENDATIONS	38
REFERENCES	40
ANNEXES	42

## **LIST OF TABLES**

Table 1: Focus Groups by Gender in the Three Communes	13
Table 2: List of interviews	14
Table 3 : Sample of households by village	14
Table 4: SWOT Analysis in ViMPlus operating context	19
Table 5: Basic information on the communes of Pissila, Tougouri and Yalgo	20
Table 6: Opinions of men and women on the products and services of local actors	23
Table 7: Socio-demographic characteristics of surveyed households by commune	24
Table 8: Type of housing per commune	25
Table 9: Percentage of households reporting each type of water supply in the commune	25
Table 10: Percentage of households by type of water source and socioeconomic status	26
Table 11: Percentage of households with a latrine per socioeconomic status	26
Table 12: Proportion of households by type of latrine and commune	27
Table 13: Proportion of households with a latrine by type of latrine and status of household	27
Table 14: Percentage of households by preferred latrine type and commune	28
Table 15: Hardware store characteristics (# of 18 interviewed)	29
Table 16: Interest in growing the business	31
Table 17: Mason Characteristics and Types of Latrines (N=18)	32
Table 18: Economic model of masons and craftsmen-repairers	33
Table 19: Cost of labor for each type of latrine	35
Table 20: Mapping of risks and mitigation measures for hardware retailers	36

## **LIST OF FIGURES**

Figure 1: Sanitation Market: Credit USAID WASH Pals 2018	. 15
Figure 2: Examples of products in hardware stores that came from Ouagadougou	.30

#### **EXECUTIVE SUMMARY**

Market-Based Sanitation (MBS) is the development of a sanitation market in which the user makes a full or partial monetary contribution (with savings and/or cash equivalents) toward the purchase, construction, upgrade, and/or maintenance of a toilet from the private sector<sup>1</sup>. MBS aims to increase access to and help maintain sanitation coverage among households. It does this by supporting sustainable, competitive local businesses to better reach and serve the unmet needs of low-income households. An effective MBS strategy requires an understanding of the supply, demand and enabling environment in which a project is being implemented.

As part of the "Refine" year in 2019, the Victory Against Malnutrition Plus (ViMPlus) Development and Food Security Activity (DFSA) commissioned a consultancy to assess the feasibility of establishing a MBS approach as part of ViMPlus. The study collected and assessed data to understand household consumer preferences, motivators and barriers to purchase and use of products/services, and to identify local business and supply chains of water sanitation and hygiene (WASH) products and services. The results of this assessment, along with the ViMPlus Social and Behavior -Change (SBC) study and the Community Diagnostics will inform the ViMPlus WASH strategy.

This study combined both qualitative and quantitative approaches and included a review of MBS literature. The mixed-methods formative research employed key informant interviews, focus group discussions, and household interviews. A total of twelve focus groups (six with men and six with women) were carried out in the six selected villages. This study also included 42 individual interviews with the different stakeholders, including with businesses already engaged in WASH activities and potential businesses, masons, artisan repairers, spare parts vendors, technical services in charge of water and sanitation at the commune level, and other organizations using marketing approaches to improve WASH coverage. In addition, 120 surveys were conducted with heads of households.

Following a pre-test of the tools, data collection was undertaken by trained supervisors and enumerators in November 2019 in Pissila, Yalgo and Tougouri, three of the communes<sup>2</sup> targeted by ViMPlus in the provinces of Bam, Namentenga and Sanmatenga in the Centre-North region of Burkina Faso. Data analysis, report writing and review took place during December-February 2020.

Key results are organized by Demand (consumers), Supply (Businesses) and Enabling environment/risks:

# DEMAND: CONSUMER PREFERENCES, MOTIVATIONS, DEMAND AND DECISION MAKING

All interviewed households regardless of the commune and socioeconomic status are ready to acquire new WASH products. However, it is important to note that of those households surveyed that had latrines, 85% in Yalgo, 67.5% in Tougouri and 64% in Pissila reported that their latrine was financed mainly by projects and the government. People choose their preferred latrine for a range of reasons including: modern, odorless, easy to clean, easy to build, affordable, and long lasting. These factors can also be integrated into business marketing strategies. In the focus group discussions, men and women agree that an ideal latrine should be clean and tidy, have a cover for the hole, have a hand-washing and soap station, have plastered walls, a roof and door and a ventilation

<sup>2</sup> Rollo, Bourzanga, Dablo, Barsalogho, Pensa, Pissila, Bouroum, Nagbingou, Yalgo and Tougouri

<sup>&</sup>lt;sup>1</sup> USAID WASHPals 2018

pipe. In addition to these characteristics, the women added that the latrine must have a well-designed and deep pit and must also be odor-free.

97% of households in Pissila and Tougouri and 90% in Yalgo reported money as the main barrier to having a latrine. This was a similar finding during the Victory Against Malnutrition (ViM) final evaluation. Only 3-10% of those surveyed reported the unavailability of building materials and masons as a barrier. The head of household (primarily male) is the primary decision maker when it comes to larger WASH purchases and services (such as latrines). However, women are responsible for deciding on simple products such as soap, small water collection and storage materials (jerry cans, basins, etc.).

Ventilated improved pit (VIP) and Sanplat latrines are the preferred types of latrines by both men and women, with women suggesting that Sanplat latrines are more suitable for menstruation. The main reasons for these preferences are affordability, privacy, and dignity, and avoiding shame. For drinking water, both men and women prefer wells. For water collection and storage instruments, the plastic drum with lid seems to be preferred by both men and women because of its durability and resistance to rust.

In the study, 99.16% of households surveyed own their homes. In other studies, land ownership and space to build latrines has been noted as an important driver for latrine construction. Not owning your home can be a disincentive to construct a latrine as there is a risk of moving and losing your investment (O'Connell, 2014). It may be important for the ViMPlus Social Behavior Change (SBC) strategy to build on this driver to motivate households to invest in a latrine on their property. The average family size is 11 people—which makes promoting latrine operations and maintenance a key part of the WASH component of the SBC strategy.

#### **SUPPLY/BUSINESSES**

Some of the surveyed WASH products and services are available at the commune level. Hardware stores visited at the communal level did not stock certain supplied including plastic and wooden slab, concrete blocks, child feces pots, and water treatment. Similarly, not all products and services found at the commune level are available at the village level.

Most providers have achieved viability and sustainability by offering different types of products and services, rather than just focusing on WASH supplies and services. This product diversification included supplies/services that support agriculture, livestock, etc. This is the case for artisanal masons, borehole repairers, sellers of borehole spare parts and small hardware stores. Large hardware stores seem to be viable and offer various ranges of construction products as well as WASH products.

While the products are not all available at the village level, the large hardware stores, generally located in the capital of the commune, have the possibility of making WASH products and services available on a commune-wide basis, based on demand from clients including households, non-governmental organizations (NGOs), projects and administrations. They can order products and services from the country's capital, Ouagadougou. However, relying on suppliers in larger cities would require strengthening their current marketing and distribution strategy to make the products available throughout the commune. Hardware retailers are willing to finance this expansion through their own means (94%) and a loan from finance institutions. Any market strengthening support should be undertaken in close coordination with the Resilience in Sahel Enhanced II (RISE II) partner TerreEauVie (TEV).

#### **ENABLING ENVIRONMENT/RISKS**

There is growing interest in water and sanitation management at the institutional and communal levels and previous experience marketing WASH products in Burkina Faso is a strength. However, the rural poverty that characterizes the ViMPlus zones of influence (ZOI) contributes to the high number of households that have latrines financed by projects or government. In addition, while markets are currently functioning (at the time of this study), it is important to monitor how markets are being affected by displacement, insecurity and the COVID-19 pandemic, which may affect socioeconomic vulnerability of households in the ViMPlus ZOI.

There are several external and internal risks to the market for WASH products and services. These risks include (i) marginalization of the user, (ii) weak social intermediation structures, (iii) institutional weakness of the communes, (iv) disorganization of service and product providers and (v) insecurity, which could affect both the supply and demand of WASH products and services.

Finally, as part of this assessment, potential partners for WASH capacity building were also identified, including: the International Institute for Water and Environmental Engineering (2iE), the Institute of Environmental Engineering and Sustainable Development (IGEDD), the Centre des Métiers de l'Eau (CEMEAU), and the Aube Nouvelle University.

Based on this study, recommendations are as follows:

- I. Connect demand generation activities in ViMPlus (through the integrated SBC activities and through community led total sanitation [CLTS]) while at the same time supporting supply side activities. This will include clearly highlighting existing WASH business opportunities and sharing them with the different providers of WASH products and services (hardware, masons, artisanal repairers, vendors of borehole spare parts, prefabricators), supporting existing businesses by strengthening their capacity, particularly in terms of marketing/sales, business development, and supporting ways to expand distribution to cover more villages.
- 2. Consider developing low-literacy training materials and sales tracking tools given the low literacy rates among some groups, as identified during the assessment. For example, 50% of the interviewed hardware store managers and masons are illiterate.
- 3. Encourage existing masons, hardware dealers, artisan repairers, vendors of spare parts for boreholes to increase the supply of WASH products and services, while not disconnecting them from their current activities such as agriculture, livestock, etc. to ensure the viability of their business models.
- 4. In line with similar projects in Burkina Faso and given that, cost has been identified as the main barrier to latrine construction (both during this study and during the ViM final evaluation), consider smart latrine subsidies.
- 5. Work with the ViMPlus Livelihoods component to promote village savings and loans and income-generating activities that could be used to purchase WASH products and services;
- 6. Collaborate with the ViMPlus Youth-led local market assessment to determine if there are opportunities for youth entrepreneurs to include WASH-related products and services as part of their diversified portfolio. Do not create new "WASH businesses" as they will likely not be viable or able to compete with existing businesses.
- 7. Recognize that WASH marketing activities will not be accessible to all, especially the extremely vulnerable. In collaboration with the WASH Cluster, consider emergency WASH service delivery approaches for internally displaced persons (IDPs) in the ZOI, for improved access to water, water treatment products and sanitation services. In addition, regular program monitoring is critical to consider how markets are being affected by displacement and insecurity.

- 8. Reinforce ViMPlus staffing and skills to support a MBS approach including skills in design, marketing, business development, entrepreneurship, and financial management.
- 9. Given that males are the primarily decision maker when it comes to acquiring a latrine and women for smaller WASH purchases (i.e. soap), it would be important to ensure that SBC and marketing interventions target differentiate approaches for demographic groups.
- 10. The study noted a lack of trust of NGOs, especially in Female respondents. As such, it would be important to ensure clear communication and leverage opportunities for ViMPlus to build trust with communities.
- 11. Given the high risk and impact that insecurity and COVID-19 may have on the markets, close monitoring and adaptive programming will be necessary.

#### **LIMITATIONS**

There are several limitations to this study. Given security challenges, we were unable to collect data in all of ViMPlus' intervention areas. Data collection was limited to only three communes. Tablets were unavailable during the data collection time period, resulting in the use of paper forms. This restricted data collection then resulted in a long period of data analysis and processing. Although follow-up was conducted, some of the identified key informants were unavailable for interviews. The sample size was not calculated to compare across income quintiles. Finally, the study relied heavily on self-reported information and participants may have responded in a way that they felt was socially acceptable by the enumerator rather than reporting on their true behaviors. Businesses may have also been hesitant to share sensitive information around their finances and operations.

#### INTRODUCTION

Burkina Faso is characterized by very low rates of access to water and sanitation, particularly in rural areas. Although there are national water and sanitation policies, there is an increase in demand for infrastructure services due to demographic growth that affect emerging municipalities who struggle to mobilize the human, financial and material resources needed to expand this supply.

Centre-Nord is one of the most structurally vulnerable, food and nutrition insecure regions in Burkina Faso of Centre Nord. The U.S. Agency for International Development (USAID) Office of Food for Peace's (FFP's) Victory against Malnutrition Plus (ViMPlus) Development Food Security Activity (DFSA) aims to combat extreme poverty and chronic malnutrition in Centre-Nord and build on the proven success of the previous Victory against Malnutrition (ViM) Activity. This includes addressing underlying causes of malnutrition including access to potable water, safe sanitation and improved hygiene practices.

One of the major challenges that ViMPlus and other activities face is how to support the long-term sustainability of key water, sanitation and hygiene (WASH) practices and services in the project area.

Traditional hygiene and sanitation promotion approaches such as Community Led Total Sanitation (CLTS) can improve the level of adoption of good WASH practices in the short term (household water treatment, latrine use, etc.). However, recent research has demonstrated that their effects fade quickly over time, notably due to a drop in demand for services and products, barriers to the supply chain and services and due to the quality of these products and services<sup>3</sup>.

While CLTS is the national policy in Burkina Faso, ViMPlus seeks complementary modalities to support sustainability. The adoption of a market approach in WASH is more likely to lead to sustainable processes when a number of conditions are met: accessible and desirable products for local consumers, a dynamic local private sector, a functioning supply chain, local leadership capable of influencing the development and functionality of markets, etc.

Therefore, the overall objective of this study is to understand the role of WASH markets in the sustainability of WASH services for the populations in the areas targeted by the ViMPlus project in Burkina Faso in order to develop a WASH strategy.

The Specific Objectives were as follows:

- Identify lessons learned from other actors working in WASH marketing in Burkina Faso, regionally and globally.
- Conduct a rapid scan of existing WASH products and services available on the local markets (village and communal level).
- Determine how best to support access to specific WASH products and services (e.g. latrines, hand-washing products, water treatment products or drinking water storage containers) in target villages to encourage the adoption of WASH behaviors.
- Understand consumers' (both men and women) preferences, motivations, and barriers for purchasing WASH services/products.
- Identify existing and potential businesses, suppliers and entrepreneurs in the WASH field, business models and available products/services.

<sup>&</sup>lt;sup>3</sup> USAID, 2018. An Examination of CLTS's Contributions toward Universal Sanitation. Washington, DC., USAID Water, Sanitation, and Hygiene Partnerships and Sustainability (WASHPaLS) Project

- Define required implementation resources (human and material), resource mobilization strategies and capacity building efforts required to implement a market-based approach in ViMPlus, including the gaps.
- Identify financing models for WASH products and services such as microfinance, incomegenerating activities, etc.
- Define the main risk factors (and possible mitigation measures) that pose a potential threat to these WASH activities, including a risk analysis map clearly indicating severity.

#### **METHODOLOGY**

This assessment used the following approaches: I) rapid desk review 2) focus groups 3) structured interviews and 4) household surveys. Primary data was collected between 10 to 16 November 2019 by a team of 12 interviewers and three supervisors. Each supervisor led a team of four enumerators operating at the commune level. The coordination of data collection was ensured by the Consultant who provided both direct field level supervision and remote supervision using WhatsApp.

Prior to data collection, a three-day training session (November 7-9) was held at the Hotel Pacifique in Ouagadougou to train enumerators and supervisors on tool and to harmonize the translation of certain questions into the Moore national language. During this training, the data collection tools were pre-tested in Komsilga, located about 20 km from Ouagadougou. Following the pre-test, certain questions were adapted prior to starting actual data collection.

#### **RAPID DESK REVIEW**

This assessment began by identifying key MBS resources from Burkina Faso, the region, and globally. This research included resources on the USAID Global Waters site developed by USAID Water, Sanitation and Hygiene Partnerships and Learning for Sustainability (WaSHPaLs)<sup>4</sup>, and sites including the Water Solidarity Programme, Eau Burkina, the National Institute of Statistics and Demography, World Bank and the United Nations Children's Fund (UNICEF). These resources guided the development of the study protocol and tools. In particular, the UNICEF guidance notes on sanitation marketing<sup>5</sup> guided the methodology for this study along with resources from the World Bank Sanitation Marketing Toolkit<sup>6</sup>, and the USAID Sanitation Marketing for Managers Guidance and Tools for Program Development.<sup>7</sup> We also reviewed resources by GRET, the International Rescue Committee (IRC) and Save the Children.

<sup>&</sup>lt;sup>4</sup> https://www.globalwaters.org/WASHPaLS

<sup>&</sup>lt;sup>5</sup> UNICEF(2013). Sanitation Marketing Learning Series. Guidance Notes. 1-10.

<sup>&</sup>lt;sup>6</sup> World Bank (n.d.). Sanitation Marketing Toolkit. Available at :

https://www.wsp.org/sites/wsp/files/Sanitation%20Marketing%20Toolkits/toolkit/toolkit-home.html

<sup>&</sup>lt;sup>7</sup> USAID HIP 2010). Sanitation Marketing for Managers: Guidance and Tools for Program Development. Available at: <a href="https://www.globalwaters.org/resources/assets/sanitation-marketing-managers-guidance-and-tools-program-development">https://www.globalwaters.org/resources/assets/sanitation-marketing-managers-guidance-and-tools-program-development</a>

#### **FOCUS GROUP DISCUSSIONS**

Focus groups were conducted using a semi-structured focus group guide. Questions focused mainly on demand and sought to understand the needs, preferences, motivations, and current practices related to water, sanitation and hygiene and related markets and services. A total of 12 focus groups were conducted in six villages (two per commune) including one women's focus group in each village. The table below summarizes the focus groups conducted in the different targeted villages in the three communes.

Table I: Focus Groups by Gender in the Three Communes

FOCUS GROUPS			TOUGOURI		YALGO		TOTAL
	GOEMA	TOÉGHIN	TAFFOGO	TAONSGO	GORBALLÉ	YASSOU	
Male Focus	I	I	I	1	I	I	6
Groups							
Female Focus	I	I	I	1	I	I	6
Groups							
Total	2	2	2	2	2	2	12

One researcher facilitated and one enumerator served as the notetaker during each focus group.

#### **INDIVIDUAL INTERVIEWS**

Drawing from tools used during previous market assessments, an interview guide was developed to collect information on the WASH products and services markets and value chains. This guide was adapted to interview hardware dealers, masons, artisans repairing boreholes, sellers of spare parts for boreholes, pre-manufacturers of compounds used in the construction of latrines (slabs, etc.), and the municipal technical department in charge of water and sanitation. The interview focused on the products and services offered, business model of the enterprises and service providers, capacity building needs, strengths and weaknesses, and potential recommendations. For the specific case of the municipal WASH technical services, the interview guide focused on the overall WASH environment in the commune, the latrine and water works construction standards, the WASH lessons learned from other projects and programs, the constraints related to the provision of water services and recommended solutions to improve service provision.

The table below shows the list of interviews conducted by profile and commune.

Table 2: List of interviews

ACTORS	PISSILA	TOUGOURI	YALGO	TOTAL
WASH hardware dealers	4	4	4	12
Potential hardware dealers	2	2	2	6
Masons doing marketing	3	3	3	9
Non-marketing masons	2	2	2	6
Craftsmen repairing boreholes	1	1	I	3
Sellers of drilling spare parts	1	I	1	3
Technical service of the town hall in	I	T	I	3
charge of water and sanitation				
Total	14	14	14	42

#### **HOUSEHOLD SURVEYS**

The household survey collected information on: current WASH practices, preferences, motivations, and perceptions around WASH products and services. I20 quantitative household surveys were conducted in six villages (Goema, Toéghin, Taffogo, Taonsgo, Gorballé and Yassou) in the three communes as shown in the below table. These villages were chosen taking into account the current security context and the village experience with CLTS.

Table 3: Sample of households by village

HOUSEHOLD SURVEY	COMMUN	E PISSILA	TOUGOURI COMMUNE				TOTAL
	GOEMA	TOÉGHIN	TAFFOGO	TAONSGO	GORBALLÉ	YASSOU	
Sample	20	20	20	20	20	20	120

#### **DATA MANAGEMENT AND ANALYSIS**

Data was managed using Sphinx, Excel and SPSS. Quantitative analysis was analyzed using descriptive techniques. Qualitative data was coded and analyzed using content analysis.

#### **RESULTS**

#### **RESULTS FROM THE RAPID DESK REVIEW**

#### GLOBAL LESSONS LEARNED FROM MARKET BASED SANITATION (MBS)

The 2018 desk review of MBS programs by USAID WaSHPaLS along with other local, regional, and global documents were consulted to draw on for this desk review.

As shown in the below diagram (USAID 2018), there are three key components to a sanitation market: demand (represented by the customer), supply (enterprise/entrepreneur), and the broader context/enabling environment.



Figure 1: Sanitation Market: Credit USAID WASH Pals 2018

#### **CUSTOMER/ DEMAND SIDE**

Good market research to generate the information and insights for strategy design and implementation is the foundation of any market-based approach. In MBS, households are viewed as customers of sanitation businesses. There are several conditions that help guide household investment in WASH. Consumers who believe that improved latrines will help them achieve personal goals and improve their daily lives in practical ways require improved latrine designs with features, functions and quality that target consumers want (the 'right' product) are readily available at prices that consumers consider reasonable and a simplified process for purchasing the materials, components and services required to install improved latrines, so that it is more convenient and predictable (UNICEF 2013).

Across many contexts, common motivating factors for consumer investment in improved sanitation have been identified such as comfort, privacy, convenience; greater safety, especially for women and children, social pride and status; cleanliness, fewer odors and flies; less discomfort with visitors; less conflict with neighbors; good health, less disgust and avoiding open defecation, fewer illnesses and accidents; peace of mind; increased property value; increased rental income; and a better future for children (UNICEF 2013). These factors may be important to consider in the ViMPlus Marketing Strategy.

While there are many reasons why people might want a latrine, there are also significant barriers that they face. These can include: the perceived or actual high upfront cost of constructing a latrine; not enough income (poverty); technical complexity of constructing or purchasing materials and services; locally available options that offer little 'value' to the consumer; lack of knowledge about available products, services and suppliers; satisfaction with existing defecation practices and places; low priority; competing priorities for savings, time and effort; no trust in suppliers; and also lack of access to space/land, and microfinancing options (UNICEF 2013).

#### SUPPLY/BUSINESS/ENTREPRENEUR SIDE

Approaching sanitation as a business requires changing how government authorities and typical WASH organizations think and work. Whereas in the past, sanitation strategies often looked at businesses as input suppliers and contractors, MBS sees businesses as key partners and independent, viable enterprises to be influenced, supported and regulated, but not controlled or contract-managed (UNICEF 2013).

Many supply-side strategies in sanitation programs have not taken off because of faulty assumptions about what consumers want, what market bottlenecks exist and how to address them. For example, training masons only in technical construction is generally not sufficient to catalyze a sanitation market if the opportunity costs of building latrines are too high. Using the Economic Model Framework, it is possible to map the infrastructure needed for masons to provide sanitation services and understand the resulting financial aspects (costs and revenues).

Rural sanitation markets set up by external programs to sell only sanitation products are often unprofitable as the cost and resources required cannot be covered by the income generated solely from selling sanitation products and services. There is a low profit margin on WASH products and not a large enough customer base in the rural areas where these shops are established (WaSHPaLs 2018). Therefore, as part of the strategy development, we need to take into account the opportunity cost to our mason and business partners as our training efforts can result in a large number of trained masons and businesses with only a small number actively involved in selling WASH products and services (UNICEF 2013).

It is recommended to start with focal point businesses that are already known and trusted in the community. ViMPlus can work with these businesses to pilot selling additional or expanded WASH products and use this as a model for scaling up.

#### **BUSINESS ENVIRONMENT/ BROADER CONTEXT**

As a result of recent institutional changes, roles and interrelationships are changing of WASH actors in Burkina Faso. At the central level, key state actors include the General Directorate for Water Resources (DGRE), the General Directorate for Drinking Water (DGEP), the General Directorate for Sanitation (DGA), the General Directorate for Sectoral Studies and Statistics (DGESS) and other technical directorates.

At the decentralized level (regions and provinces), the Regional Directorates for Water and Sanitation (DREA) and the provincial directorates assume a technical support role including drinking water supply, sanitation and wastewater management and excreta services. These technical divisions aim to implement policies according to regional specificities and to provide advisory support and technical assistance to local authorities and other actors in the field.

Rural drinking water services are the responsibility of the Ministry of Water and its Regional Directorates. Many villages are equipped with modern wells, boreholes, standpipes (Simplified

Drinking Water Supply System [SDWS]). The recent decentralization water laws give the communes competence for the production and distribution of drinking water in their area, as well as the construction and management of wells, boreholes and standpipes. In this respect, they can be considered as "suppliers" coming under their districts, as project managers, it is up to them to define the framework of intervention, planning, implementation and management of infrastructures and equipment in their administrative entity. To do this, they draw up Communal Development Plans for Drinking Water Supply and Sanitation (PCD-AEPA), maintain contractual relations with the National Office for Water and Sanitation (ONEA) and private service providers in the leasing and management of infrastructures, mobilize the facilitation teams to act as information points, issue authorizations to service providers for the implementation of their activities and are in charge of enforcing the texts regulating sanitation practices.

ONEA oversees the creation, promotion and improvement as well as the management of collective, individual or autonomous sanitation facilities for the evacuation of wastewater and excreta in urban and semi-urban areas. In the public sphere, excreta management is reflected in the provision of latrines in markets, bus stations, schools, and health centers (mostly VIP latrines financed by development partners); while at the household level, people often construct their own latrines.

Part of ONEA's financial resources comes from the sanitation tax collected on drinking water. ONEA's Sanitation Department was subject to an organizational audit in 2014 which recommended the strategic repositioning of this department in the context of its new vision of support and transfer of autonomous sanitation to the communes. The Directorate General for Sanitation (DGA), the new name of the Directorate General for Sanitation, Wastewater and Excreta, created in 2008, is also the entity of the Ministry in charge of water and sanitation, whose mission is the implementation of wastewater and excreta sanitation strategies.

As with most of the sanitation policies in Western and Central Africa, CLTS has been institutionalized into national sanitation policy. However, Burkina Faso is one of the few West African countries that has been providing a household sanitation subsidy (CLTS Foundation, 2017).

#### CAPACITY STRENGTHENING AND POSSIBLE PARTNERS

According to other projects, a MBS training program may need to include general information on their products and services as well as the benefits of good sanitation and hygiene. Businesses should be able to explain the key functions of the products they offer and give advice on the use and maintenance of the products. Technical production of new products and services, business and financial management, sales and promotion. Therefore, we identified several institutions that may be accessed for WASH capacity building. These included: International Institute for Water and Environmental Engineering (2iE), the Institute for Environmental Engineering and Sustainable Development (IGEDD) and the Centre des Métiers de l'Eau (CEMEAU) and the ISIG (Higher Institute for Management Computing), which is now known as the Aube Nouvelle University.

#### FINANCING AND REACHING THE POOREST OF THE POOR

In Burkina Faso, household in-kind contribution ranges from 10 to 50 percent of the total cost of the latrine. For example, in the Sanya Kagni project, the price for a dry latrine was set at 40,000 FCFA and the client household paid 50% of the price or 20,000 FCFA. Once the toilet is built correctly (which can be checked by a technician), the Sanya Kagni project paid the store manager a subsidy equal to the difference between the actual price and the promotional price, which corresponds to the remaining 50% or 20,000 FCFA. It should be noted that a poorly designed subsidy can have

several negative effects. First, it can create dependence on external financing. Subsidies that are too large (at 90% or 100% of the cost of the infrastructure to be built), or too frequent, do not encourage beneficiaries to maintain the infrastructure well, but rather to wait for the next subsidy to replace it. In addition, poorly designed subsidies can break the existing dynamics of the local sanitation market: a heavily subsidized latrine construction program can eliminate any market activity for a latrine builder mason already present in the area, whose equipment is more expensive than subsidized latrines (GRET, 2018).

It is therefore important to consider such factors including: (i) the actual cost of the infrastructure to be financed; (ii) the beneficiary's ability to pay for this infrastructure; (iii) the total subsidy budget available; and (iv) the number of beneficiaries to be reached (GRET, 2018).

Lessons learned from interventions in disadvantaged areas have shown that poor households pay more for access to basic social and sanitation services than wealthy households. Microcredit can be an alternative that could contribute to accelerating access to WASH services in a market approach through a participatory process to define with communities the modalities of its implementation. Experiments have been conducted in urban Burkina Faso with the Network of Credit Unions of Burkina in the framework of a Water and Sanitation Organization for Africa (EAA) (previously known as the African Regional Centre for Water and Sanitation (CREPA)) urban water supply project. This approach has shown the capacity of households to meet water access charges if an appropriate fund-raising mechanism is put in place similar to tontines that are already accessed by some households.

According to USAID WASHPals Desk Mapping, when determining subsidies, implementers should consider four interconnected and overlapping elements—form, timing, channel, and amount. These elements are on top of targeting, which requires special focus (USAID WASHPaLs 2018). It is important to consider:

- **Subsidy Forms:** include cash, cash rebates, raw materials (like cement), hardware (receive a toilet or supplies to build a toilet, and vouchers or discounts on the market price.
- **Subsidy Timing:** can be provided to a customer before the purchase such as through a price discount or vouchers or can be provided to the customer after the purchase through a rebate (money back).
- **Subsidy Channel:** can be channeled to the customer or to the entrepreneur.
- **Subsidy Amount:** can be a fixed amount, a percentage of the total hardware costs or weighted across customer segments, with a higher subsidy going to those with the greatest need.

As noted above, Burkina Faso is one of the few countries that has been providing a household sanitation subsidy (CLTS Foundation, 2017).

#### IDENTIFICATION OF OTHER MBS ACTIVITIES IN BURKINA FASO

Through this desk review, we identified several past and on-going MBS projects in Burkina Faso. Sanya Kagni<sup>8</sup> (2014-2017) and the follow-on Ohangu project (2019-2024), both funded by the French government, aim to improve access to basic sanitation and hygiene services by using market approaches.

As part of the desk review, we did a SWOT analysis with Winrock and IRC on the WASH markets in the project areas:

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<sup>8</sup> https://www.gret.org/projet/sanya-kagni/

Table 4: SWOT Analysis in ViMPlus operating context

#### **Strengths**

- Demand exists.
- Rural areas have a real need for WASH products.
- At the institutional level, there is a
   Directorate General of Sanitation which
   tries to regulate and approve practices in
   this field.
- The existence of technical services that support the population at the local level.
- There is a growing interest from the communes in water and sanitation management.
- Urbanization and development processes in large centers are contributing to the decline in open defecation.

#### Weaknesses

- Demand in rural areas is not solvent due to the level of poverty (despite the opportunities for private connection offered by the simplified drinking water supply system (AEPS), very few households can apply for it).
- The rural poverty situation puts sanitation concerns in the background.
- The real demand and needs of the communities are not analyzed in detail.
- There are sometimes problems with the availability and cost of construction materials.
- Little is known about the supply channels for WASH products.
- There is also the problem of the availability of skills: those who are trained are not known (poor publicity, etc.).
- Many households are in a wait-and-see attitude: they are waiting for the subsidy, including some Directorate of Family Health (DSF) leaders.
- In other cases, the order of priority is not determined by poverty: households spend a lot on mobile phones and telephone credit rather than investing in WASH products (latrines, hand-washing facilities, washing basins etc.).

#### **Opportunities**

- In each commune, there is at least one artisan repairer and one mason (community expertise is therefore being set up little by little).
- The GoBF gives more visibility to the WASH component, through institutional reorganization.
- An increasing number of donors are sensitive to WASH issues, especially to sanitation.

#### **Threats**

- Increased insecurity is impacting the WASH market: there is population displacement.
- Displacement results in the abandonment of structures (in homes and public places) and the overloading host community infrastructure leading to increased open defecation.

Lessons learned from IRC gathered as part of the desk review showed that in rural areas, supply (masons trained by projects) outweighed the demand ashe population are waiting for the projects to build latrines for them. Training mechanics to become water maintenance workers is preferable over taking people without mechanical experience. Under the SaniEst project, masons were not open to including WASH in their portfolio as they preferred to do building construction. SaniEst sanitation shops were linked to hardware stores, as existing sanitation shops do not meet the initial needs for the provision of WASH services and products. Sanitation shops can also be virtual, where customers can call to order a toilet or latrine and then someone can go and provide it. Hardware stores do not generally market their products and services. Sanitation shops may have all the products available for

a latrine but that is only the first step. The products, which can be used also for general building, must be sold as latrine materials, not as building materials. The sale of latrines must be promoted with precise specifications and the corresponding costs. CLTS can facilitate behavior change to build latrines, but self-constructed latrines may not meet technical standards. Therefore, latrines are not durable and the population has not truly moved up the sanitation ladder (due to insufficient information on the availability of the higher service).

#### **RESULTS FROM THE DATA COLLECTION**

#### **STUDY LOCATIONS**

The field study was carried out in 3 communes: Pissila, Tougouri and Yalgo. The Table below provides basic overview of the three communes.

Table 5: Basic information on the communes of Pissila, Tougouri and Yalgo

CATEGORIES	PISSILA	TOUGOURI	YALGO
Geographical location	North Central	North Central Region,	North Central Region,
	Region,	Namentenga Province	Namentenga Province
	Sanmatenga		
	Province		
Population	139,546	111,956	52,620
	(ViMPlus, 2019)	(ViMPlus, 2019)	(ViMPlus, 2019)
Number of villages in the	67	42	П
commune (INSD, 2019)			
Area in km2 (INSD, 2019)	1569	2800	576
Rate of access to drinking	46%(PCD-AEPA,	61.9%	46.8%
water in 2009	2010)	(PCD-AEPA, 2010)	(PCD-AEPA, 2010)
Rate of access to sanitation	ND	ND	ND

#### **FOCUS GROUP RESULTS**

#### WASH products and services available in the villages of the three communes

During focus group discussions, both men and women reported the major needs of the communes including: increasing the number and rehabilitation of boreholes, standpipes and small water networks; increasing small water reservoirs and watering holes for animals; improving access to water collection and storage equipment (carts, plastic barrels, etc.) and training craftsmen in their repair for the commune. Full results are in <a href="#">Annex I</a>.

Men and women both reported that artisan repairmen, boreholes, large-diameter wells and traditional wells exist in the commune of Pissila. In Tougouri, in addition to boreholes and large-diameter wells, men and women noted respectively the existence of Water Users Associations (WUAs) and the AEPS (Simplified Drinking Water Supply). In Yalgo, men and women noted the existence of boreholes, large-diameter wells, and jerry cans. In addition to this, the men mentioned the existence of AEPS, WUAs, artisanal repairment, and non-functional water towers. On the other

hand, the women added the existence of carts, plastic buckets, jars and gourds. Full results are available in Annex 2.

#### WASH products and services preferred by men and women

Given that customer preferences play a critical role in whether or not they will be willing to participate in the WASH markets, we also identified preferred drinking water products and services and sanitation products and services.

In Pissila, men preferred boreholes, standpipes located near households, the water tower, and *boulis*. Unlike men, women in Pissila do not prefer the water tower and the *boulis*. In the commune of Tougouri (villages of Taffogo and Taonsgo), while men prefer standpipes as a source of water supply, women prefer private connections at home. In Yalgo, sources prefer to obtain water from boreholes, standpipes located near concessions and *boulis* for animals. Women, on the other hand, prefer boreholes as a source of water supply. The water collection and storage tools preferred by men in Tougouri include plastic drums with lids for water conservation, plastic buckets with lids, cement jars and 20-litre jerry cans. For women, the preferred instruments are the plastic drum with lid for water conservation, the plastic bucket with lid, the 20-litre canister and the rickshaw. In Yalgo, men prefer the plastic drum with lid for water conservation and the poly tank, while women prefer the rickshaw and the plastic drum with lid. Unlike women, men in Pissila prefer repairing boreholes. The same is true for men in the communes of Tougouri and Yalgo who prefer sensitization on the maintenance and use of water sources and the establishment of borehole management committees while women do not. More details are in Annex 3.

#### Motivations and capacity of men and women to acquire water products and services

The main motivations of men for using boreholes, water towers, standpipes and *boulis* as sources of drinking water are respectively the availability of drinking water in quantity and quality, improved health, good water flow, ease of transport and collection, as well as livestock rearing associated with market gardening and brick-making. Households' acquisition capacity for the different sources of household drinking water supply varies between 150,000 FCFA and 500,000 FCFA for boreholes. For the acquisition of standpipes near the concessions, households are willing to pay the sum of 2500 FCFA/month. For *boulis*, households would agree to pay the sum of 500,000 FCFA payable in three installments. For private household connections, which was listed by women as a preferred source of drinking water, households reported a willingness to pay 1250 FCFA/month for this service.

The acquisition of water collection, transport and storage equipment (such as the drum, plastic bucket with lid, cement jar, 20-litre jerry can, cart and poly tank) is mainly motivated by the better conservation of water, preservation of water against heating, better protection of water, and ease of water transport. In order to access these products, the households surveyed in the focus group have the capacity to pay sums ranging from 500 FCFA for the plastic canister and 5000 FCFA for the plastic drum.

For drinking water supply services such as sensitization and borehole repairs, households identified permanent availability of water, good water conservation and good hygiene practices as motivators. For these services, households are willing to pay FCFA 25,000 for repair services and no fees for good hygiene sensitization.

Women's motivations for drinking water supply products such as boreholes, private connections and standpipes are essentially the easy use of the water source and the availability of drinking water in quantity and quality. For these water supply sources, households are willing to pay an amount

ranging from FCFA 150,000 for the borehole for the entire village to FCFA 200,000 for the standpipe for the contribution of the entire village (see Table 18).

With regard to water collection and transport equipment, the women justified their preferences by their usefulness in collecting drinking water, the durability and resistance of the plastic drum, the availability of the product and its low cost. The amounts at which households are willing to purchase these products and materials range from 500 FCFA for the 20-litre canister to 20,000 FCFA for the plastic drum. More details are in Annex 4.

#### Motivations and capacity of men and women to acquire sanitation products and services

The table below illustrates the motivations and capacity of men and women to acquire sanitation products and services. As can be seen, the reasons behind the preference for the SanPlat latrine, VIP latrine, garbage cans, hand washing devices, and puisard showers are essentially accessibility in terms of cost, lack of vegetation for open defecation, disease prevention, maintenance of good health, preservation of dignity, and discretion. For these sanitation products, focus group data indicate that some households report being able to afford the full cost of the latrine (SanPlat latrine and hand washing device). Other households are able to pay an amount ranging from 500 FCFA for the hand washing device and 15,000 FCFA for the SanPlat latrine.

Men also reported the reasons for their preference for hygiene and sanitation materials and products such as rakes, soap, broom, children's potty, wheelbarrow, animal pens and manure pit. The motivations for enclosures and manure pits are the separation of humans from animals through the enclosures and the use of manure pits as a place to dump household refuse and waste that will later be used as manure.

The table also shows that SanPlat latrines suitable for menstruation as well as VIP latrine are the types of latrines that women are willing to acquire. These preferences are due to their contribution to improving health, ending open defecation, preserving dignity and protecting against shame. They are willing to invest amounts ranging from 7,500 FCFA for the simple SanPlat latrine, 10,000 FCFA for the SanPlat latrine adapted to menstruation and 20,000 FCFA for the VIP latrine.

For the wastewater management facilities (shower-puisard, washing basin), the women explain the reasons for their preferences are the ease of implementation, the contribution to reducing mosquitoes and they are very useful for washing dishes. Women are willing to pay 10 000 FCFA (for the puisard shower) for these items.

Women's preferences for small equipment and products such as liquid and ball soap and wheelbarrows are justified by their ease of use for washing and garbage collection. Women's interest in latrine rehabilitation and awareness on good hygiene and sanitation practices was also noted. Full results are in Annex 5. Preferred communication channels by Commune and Income Level are also listed in Annex 6.

#### Characteristics of a good latrine according to the men and women

Both men and women agree upon some characteristics of what makes up a good latrine. All agree that an ideal latrine should be: clean and tidy; have a cover for the hole; have a hand-washing and soap station; and have plastered walls, a roof, a door and a ventilation pipe. In addition to these characteristics, the women added that the latrine must have a well-designed and deep pit and must also be odor-free.

#### Male and Female opinions on development actors at the local level

Table 6: Opinions of men and women on the products and services of local actors

ACTORS	MEN'S VIEWS ON WASH SERVICES AND PRODUCTS PROVIDED BY ACTORS	WOMEN'S VIEWS ON WASH SERVICES AND PRODUCTS PROVIDED BY ACTORS
NGOs/ Projects	<ul> <li>Supporting the population in gaining access to drinking water, hygiene and new knowledge</li> <li>Support for the construction and subsidization of latrines</li> <li>Borehole rehabilitation</li> <li>Training of WASH masons</li> <li>Often, non-compliance with their commitments</li> <li>Awareness raising on hygiene and sanitation</li> <li>Insufficient consideration of the opinion of the population</li> </ul>	<ul> <li>Good work of some projects such as ATAD, Programme Faso, Associations</li> <li>Unkept promise</li> <li>Scamming of the population often by NGOs/Projects</li> <li>Content with project actors/NGOs</li> </ul>
Private WASH Service Providers (masons, hardware stores, etc.)	<ul> <li>Accompany households while masons build latrines;</li> <li>Quality of work by private service providers depends on financial capacity of the population;</li> <li>Support artisanal repairment in rapidly repairing pumps if parts are available.</li> </ul>	<ul> <li>Rapid response of artisanal repairment in the event of a breakdown (in boreholes/wells) if funds are available</li> <li>Good quality of work done by service providers</li> <li>Good quality of work done by masons in building latrines</li> </ul>
Mayors	<ul> <li>Facilitate contacts with projects and NGOs</li> <li>Support in water materials but means are limited</li> <li>Sensitization of the population on WASH</li> <li>Village level information point person</li> <li>Weak monitoring of certain activities</li> <li>Accompaniment by NGOs/Projects</li> </ul>	<ul> <li>Good work done by the Mayor's office who transmits information to the village level</li> <li>No concrete actions by the Mayor's office at the village level</li> </ul>
WASH Technical Services	<ul> <li>Support and accompaniment of WASH initiatives</li> <li>Accompany communities with support from the central government to facilitate access to WASH services</li> <li>The Population is not familiar with the structures</li> <li>Low level of involvement in WASH activities</li> <li>Monitor and evaluate instructures (wells, latrines) with limited resources</li> </ul>	Occasional monitoring     Provides advice on managing     WASH infrastructure

#### **RESULTS FROM THE HOUSEHOLD SURVEY**

A total of 120 heads of household (primarily men) were interviewed in the three communes. The average household size is 11 people. The majority of those interviewed were illiterate. 61,8% were Muslim, followed by 20.22% Animists, and 17.98% Christians.

Table 7: Socio-demographic characteristics of surveyed households by commune

		PISSILA	TOUGOURI	YALGO	TOTAL
	Average age	52,38	51,72	51,46	51,85
	% of women interviewed	0	1.7	0	1.7
	Average household size	13,74	10,85	8,73	11,06
	Average number of women in the household	4,89	6,75	4,14	5,26
	Average number of men in the household	3,94	5,45	4,21	4,54
	Average number of U5 chlidren in the household	3,12	2,07	2,19	2,45
Education level of respondents (%):	Illiterate	91.67	81	82.21	85.56
,	Koranic School	8.32	18.92	10.34	13.33
	Franco-Arabic	0	0	3.45	1.11
Main religions (%)	Muslims	45.83	56.76	82.14	61.8
	Christians	45.83	8.11	7.14	17.98
	Animists	8.33	35.14	10.71	20.22

Understanding building materials that are currently being used for housing can help ViMPlus to explore latrine material construction options as it demonstrates the availability of materials. As shown in the table below, the type of home varies per commune. The most common housing across the three communes is a mud brick home with a straw or metal sheeting roof. Homes with metal sheeting roofs being more common in Yalgo (34.75%) and Tougouri (40.00%) over Pissila (12.82%). 99.16% of households surveyed own their home.

Table 8: Type of housing per commune

CATEGORY	RESPONSES	PISSILA	TOUGOURI	YALGO	TOTAL
Type of housing (%):	House totally made of straw	25.64	5.00	15.38	15.25
	Mud brick home with straw roof	56.41	50.00	12.82	39.83
	Mud brick home with mud roof	5.13	5.00	17.95	9.32
	Mud brick home with metal sheeting roof	12.82	40.00	51.28	34.75
	Cement home	0	0	2.56	0.85
Lighting (%) :	Gas lamp	2.6	0	0	0.85
	Flashlight	92.31	97.5	92.31	94.07
	Electricity	5.13	2.5	7.69	5.08
Occupancy Status (%)	Owner	97.44	100	100	99.16
	Renter	2.56	0	0	0.84

#### **CURRENT HOUSEHOLD DRINKING WATER PRACTICES**

The water supply modes frequently used by households are boreholes (90.83%). However, it should be noted that households use to a lesser extent sources of water unfit for consumption such as ponds (1.67%) and traditional wells (0.83%).

Table 9: Percentage of households reporting each type of water supply in the commune

CATEGORY	PISSILA	TOUGOURI	YALGO	TOTAL
Boreholes	94.87%	87.50%	90.24%	90.83%
Large-diameter wellsdiameter	0%	12.50%	4.88%	5.83%
Ponds	2.56%	0%	2.44%	1.67%
Standpipe	2.56%	0%	0%	0.83%
Traditional wells	0%	0%	2.44%	0.83%
Total	99.99%	100.00%	100.00%	99.99%

Table 10: Percentage of households by type of water source and socioeconomic status

CATEGORY	VERY POOR	POOR	MEDIUM	RICH
Borehole	100.00%	89.06%	94.74%	81.82%
Large-diameter wells	0%	7.81%	2.63%	9.09%
Ponds	0.00%	1.56%	0.00%	9.09%
Standpipe	0.00%	0%	2.63%	0.00%
Traditional wells	0%	1.56%	0.00%	0.00%
Total	100.00%	99.99%	100.00%	100.00%

#### PREFERRED MODE OF HOUSEHOLD DRINKING WATER SUPPLY

According to the household survey, boreholes are by far the preferred method of household drinking water supply for all 3 communes; 92% in Pissila, 65% in Tougouri 69% in Yalgo. Apart from boreholes, households have a limited preference for standpipe (8% in Pissila, 35% in Tougouri and 32% in Yalgo).

#### **ACCESS TO LATRINE**

Of those households surveyed, on average 66.57% had a latrine ranging from 51.28% in Pissila, 70.00% in Tougouri and 78.05% in Yalgo. It is important to note observed differences between socioeconomic status ranging from 14.8% of the poorest quintile to 54.55% to 73.69% in the other segments.

Table II: Percentage of households with a latrine per socioeconomic status

CATEGORY	VERY POOR	POOR	MIDDLE	UPPER
Yes	14.29%	70.31%	73.68%	54.55%
No	85.71%	29.69%	26.32%	45.45%
Total	100.00%	100.00%	100.00%	100.00%

#### TYPES OF LATRINES USED BY HOUSEHOLDS

The most common type of latrine varies by commune. As shown in the below table, in Pissila and Yalgo, the VIP latrine is the most common, whereas in Tougouri, it is the simple SanPlat. Few households use ECOSAN options and they are mainly in Tougouri. This may be because it was promoted as part of a government or development partner intervention. Very few households with a latrine had a traditional latrine without a slab—indicating that there has been penetration of the sanitation market into the surveyed communities.

Table 12: Proportion of households by type of latrine and commune

CATEGORY	PISSILA	TOUGOURI	YALGO	TOTAL
VIP	71.52%	17.70%	48.75%	49.70%
SanPlat simple	16.6%	67.34%	34.83%	35.12%
Traditional with slab	11.86%	1.02%	16.42%	13.09%
ECOSAN	0.00%	6.39%	0%	0.92%
Traditional without slab	0%	7.55%	0.00%	1.09%
Total	100.00%	100.00%	100.00%	99.92%

Looking across socioeconomic status, we note that all of the very poor surveyed in this study have a traditional latrine with a slab, whereas the other socioeconomic status groups are divided primarily among VIP, SanPlat simple and traditional latrine with slab.

Table 13: Proportion of households with a latrine by type of latrine and status of household

CATEGORY	VERY POOR	POOR	MIDDLE	UPPER
VIP	0.00%	49.35%	50.68%	61.84%
SanPlat simple	0.0%	40.79%	29.56%	36.84%
Traditional with slab	100.00%	5.85%	19.76%	1.32%
ECOSAN	0.00%	1.84%	0%	0.00%
Traditional without slab	0%	2.17%	0.00%	0.00%
Total	100.00%	100.00%	100.00%	100.00%

Given that MBS is also an opportunity for the customer to aspire towards their ideal toilet, we also asked households their preferred latrine type. The majority reported VIP, followed by traditional with slab, and to a lesser extent SanPlat simple and ECOSAN. It is important to note again that the greater number of households interested in ECOSAN were in Tougouri, again reflecting that perhaps there were government or development partner sensitization in this commune. About one third of the households surveyed in the Pissila commune reported interest in having a traditional latrine with a slab. These preferences are important to consider during the market segmentation strategy.

Table 14: Percentage of households by preferred latrine type and commune

CATEGORY	PISSILA	TOUGOURI	YALGO	TOTAL
VIP	51.28%	80.00%	80.49%	70.83%
SanPlat simple	15.4%	2.50%	7.32%	8.33%
Traditional with slab	30.77%	0.00%	0.00%	10.00%
ECOSAN	0.00%	17.50%	7%	8.33%
Traditional without slab	0%	0.00%	0.00%	0.00%
Pour flush	3%	0.00%	2.44%	1.67%
Automatic flush latrine	0%	0.00%	2.44%	0.83%
Total	99.99%	100.00%	100.01%	99.99%

When asked what motivated them to select this latrine choice, a number of reasons were cited including: modern, odorless, easy to clean, easy to build, and affordable.

In Pissila, this was modern (49%), easy to clean (36%), affordable (10%), easy to construct (3%) and lack of odor (3%). In Tougouri, easy to clean (38%), modern (20%), long lasting (18%), lack of odor 15% and affordable (10%). In Yalgo, motivations were modern (58,5%), long lasting (12,2%), affordable and lack of odor (9,8% for each), easy to construct (7,3%) and easy to clean (2,4%).

#### HOUSEHOLD DECISION MAKING AROUND WASH PRODUCTS

The decision to build latrines is made by men, who are usually the heads of households. In the commune of Pissila, the decision to build latrines is 100% male. In the communes of Tougouri and Yalgo, only 2.5% of women decided to build latrines. It is important to note that women heads of household can decide independently of men to build their latrines according to field investigations. Overall, in all three communes, the decision to build a latrine is 98.3% for men and 2.7% for women.

#### BARRIERS AND FINANCING OF LATRINES

Many of the difficulties that households report in obtaining latrines are related to the unavailability of financial resources. This was noted in 97% of cases in the communes of Pissila and Tougouri and 90% in the commune of Yalgo. Difficulties related to the non-availability of building materials and masons were mentioned only slightly (varying between 3% and 10%). The Annexes provide greater details on the reported willingness to pay for WASH products and services and the availability of these products in the communes. It is important to note that on average 72% of the latrines built in the three communes were financed mainly by projects (primarily the USAID-funded Families Achieving Sustainable Outcomes [FASO] Activity). Specifically, this covers 85% of latrines in the commune of Yalgo, 67.5% in Tougouri and 64% in Pissila. Apart from the projects, 36% of the latrines were built by the head of household in Pissila commune, 30% in Tougouri and 12.5% in Yalgo. While finances are a barrier, over 85% of those surveyed in the three communes reported that WASH professionals are available. However, this ranged from 17% to 100% of those surveyed reporting the availability of these professionals depending on the wealth quintile and commune.

#### KEY INFORMANT INTERVIEW RESULTS

#### HARDWARE STORE INTERVIEWS

83% of the hardware dealers interviewed own their store. Hardware store managers interviewed were all male and most often illiterate (50%), while some had a primary school education (39%) and others secondary school (11%). Activities are conducted informally (67%) and formally (33%). In addition to the hardware store activity, 33% carry out other activities such as agriculture and animal husbandry.

Table 15: Hardware store characteristics (# of 18 interviewed)

CATEGORY	ANSWERS	PISSILA	TOUGOURI	YALGO	TOTAL
	Average age	36.33	33.33	28.83	32.83
	Sex (#):				
	Male	6	6	6	18
Education	Illiterate	3	3	3	9
	Primary	2	3	2	7
	Secondary	I	0	I	2
	Advanced	0	0	0	0
How long has business existed	3 years or	5	4	2	П
	more				
	Less than 3	I	2	4	7
	years				
Legal status (#) :	Formal	1	3	2	6
	Informal	5	3	4	12
Member of a business association	Yes	4	1	3	8
(#):	No	2	5	3	10
Existence of another hardware	Yes	2	3	2	7
shop(#):	No	4	3	4	П
Average number of employees	0 Employees	0	2	0	2
	I Employee	2	1	1	4
	2 Employees	2	0	4	6
Hardware shop is only activity	Yes	4	4	4	12
(%):	No	2	2	2	6

#### List of products and prices available

In Annex 7, there is the full table of WASH products that were available or unavailable at the hardware shops visited. It is important to note that certain supplies are not available including plastic and wooden slab, concrete blocks, child feces pots, and water treatment products. Nevertheless, it should be mentioned that the non-existence of these products in the sampled hardware stores in no way means that they do not exist at the level of the municipalities, but only that the hardware stores are not yet involved in the sale of these products and services. This is the case for local building materials (straw, secco, millet stalk mats, etc.) and for diapers and pots that may be available from other suppliers such as shopkeepers and craftsmen specializing in making mats, secco, etc. **Plastic slabs, on the other hand, do not appear to be available at the commune level.** 

Hardware retailers interviewed source their products and services from Ouagadougou and Kaya (see Annex 8 for the supply chain). From these supply centers products can be delivered directly from the delivery vehicles of wholesalers and semi-wholesalers. In some cases, the products paid for

are entrusted to transporters making the link between Ouagadougou and the communes or Kaya to the communes. The products are then received and stored in the shops open in the communes and then sold to customers.

Figure 2: Examples of products in hardware stores that came from Ouagadougou





The table below illustrates the economic model of hardware retailers in the 3 municipalities targeted by the study. The hardware retailers have a variety of products that they make available to households, masons and other customers, most of whom are located throughout the commune.

All hardware stores are interested in expanding their business. This expansion should take place over a time horizon of one year (44%), between 6 months and one year (28%), 6% for less than 6 months and 22% for other time horizons. Availability of financial resources will determine the time horizon. Expansion includes the diversification of products (56%) followed by the opening of the activity in another location (17%), improved marketing of WASH products as well as the acquisition of delivery equipment with 11% each.

Hardware retailers are willing to finance this expansion through their own means (94%) and a loan from financing institutions.

Table 16: Interest in growing the business

CATEGORY	PERCENTAGE	CATEGORY	PERCENTAGE
Desire to expand business (%)	100%	What aspect is part of the	
		business expansion:	
Timeline for business expansion		Increase number of WASH	56%
		products	
Less than 6 months	6%	Improve marketing of WASH	11%
		products	
Between 6 months and one year	28%	Purchase of delivery equipment	11%
In one year	44%	Open a new location	17%
Other	22%	Other	6%
Mode of financing expansion		Reasons for increasing	
		investment in marketing	
Own resources	94%	Presence of competition	67%
Loans from friends, family	0%	Availability of marketing	11%
		skills/capacity	
Loans from financial institutions	6%	Availability of financial	11%
		resourcess	
Other	0%	Others (increased demand)	11%

#### Strengths and Weaknesses of Existing Hardware Stores

Through this assessment, both strengths and weaknesses of existing hardware stores were identified. Strengths included supportive family, strong drive in cement and iron, good customer service, good product presentation and diversity good collaboration with major private operators. Weaknesses include: low number of customers, insufficient financial means to expand the hardware store, difficult product flow, decrease in main customers (gold panners), insufficient financial means to obtain supplies as a result, no stock management notebook or registers, and delays in the delivery of the goods ordered.

Hardware dealers claim to have a vocation for their trade (sometimes as a result of being supported by their family) for which they express their interest in this business niche and the monetary benefits it provides them. They offer a diversity in WASH products that satisfies different customer demands. There is a strong demand for cement, iron, sheet metal, from a diversified customer base. There is a supply chain collaboration with local economic operators that allow them to be part of a larger sales chain. In addition, the hardware retailers are all located on the edge of the asphalt road, accessible and visible to all types of customers, which is an asset.

The main weaknesses mentioned by the hardware retailers in terms of their activities include the current shrinking market: the economic situation is declining because of the insecurity that is affecting the markets, population movement. There are fewer customers, particularly gold panners and slow product sales, with variability in demand, etc. There is also low investment capacity: difficulties in expanding the activity, and lack of means for a continuous and consequent supply. Finally, there are challenges around management including lack of stock management notebooks, limited record keeping etc.

#### **INTERVIEWS WITH MASONS**

A total of 18 masons were interviewed. The average age of the masons interviewed was 38 years old. They are all male and started their activities more than 3 years ago. Half are illiterate and 16 of the 18 masons have an informal business status. 10 of the masons are or had worked previously with FASO. Many of the 18 masons interviewed report competencies in different types of latrine construction and have received different trainings as shown in the table below.

Table 17: Mason Characteristics and Types of Latrines (N=18)

		PISSILA	TOUGOURI	YALGO	TOTAL
		(N=6)	(N=6)	(N=6)	(N=18)
			` ′	` '	` ′
	Average Age	40.8	44	36.2	40.5
	% Male	100	100	100	100
Education level (#)	Illiterate	2	2	5	9
	Literate in National languages		I	I	2
	Literate in Local Language	2	2		4
	Primary school	2	1	0	3
	% with more than 3 years	100	100	100	100
Creation Date (%):	Formal	2	0	0	2
Legal Status (#)	Informal	4	6	6	16
	Works/Worked with a	4	3	3	10
	donor				
	Competence in VIP I pit	4	3	3	10
Training and skills	Received VIP I fosse	I	I	I	3
per type of latrine	training?				
. ,,	Competence in VIP 2 f pits	4	2	2	8
	Received VIP 2 fosse training	I	1	ı	3
	Competence in SanPlat	3	4	4	11
	Latrine				
	Received SanPlat Latrine	2	5	2	9
	training				
	Competence in Traditional	5	5	4	14
	Latrine				
	Competence in ECOSAN	I	2	I	4
	Latrine 2 pits				
	Received training on	0	2	0	2
	ECOSAN 2 pits				
	Received training on	I	1	0	2
	traditional ECOSAN				
	Competence in pour flush	I	0	0	I
	toilet				
	Training received in pour	0	0	0	0
	flush toilet				
	Competence in mechanical	0	0	0	0
	flush toilet				
	Training received in	I	0	0	I
	mechanical flush				
	Shower	4	5	4	13
	Training in traditional SanPlat	2	4	2	8
	Latrine				

#### **TRAINING OF MASONS**

Several mason trainings have been delivered by organizations including FASO, Self Help Africa, Catholic Mission, Programme National de Biodigesteur/Organisation Catholique pour le Développement et la Solidarité (PNB/OCADES). The trainings ranged from I day to a year and included topics such as mechanics, construction of houses, latrine construction, ECOSAN and VIP latrine construction, and business management. The full table of trainings and perceived capacity building needs can be found in the <a href="Annex 9.">Annex 9.</a>

# BUSINESS MODELS OF HARDWARE STORES, MASONS AND ARTESIAN REPAIRERS

The suppliers use a number of methods to encourage households to purchase WASH products. This includes:

- Direct sales to households to purchase WASH products, especially for hardware retailers who display their products along major roads
- Delivering using a tricycle when a large quantity of products is purchased
- Aligning the prices of products/ services with others available on the market
- Word-of-mouth to promote product quality
- Mobile phones as the preferred means of communication to sell WASH products/services.

Table 18: Economic model of masons and craftsmen-repairers

	MASONS	ARTISANS REPAIRERS	HARDWARE STORES:
Offer (Value proposition)	<ul> <li>Service model: Masons in the ZOI offer a range of services for the construction of traditional latrines, VIP latrines, rehabilitation of traditional latrines into VIP latrines, etc.</li> <li>Most masons have skills in the construction of traditional latrines but many need training for ventilated improved pit (VIP) latrines, manual flush toilets (TCM), ecological sanitation (ECOSAN), washing basin, shower-tank, etc.</li> </ul>	<ul> <li>Service model: Repair and maintenance of failed boreholes on a community-wide scale. Services include pump installation, recovery of fallen pipes, repair of head-related failures, drilled pipes, head-related failures, repair of seals, plunger</li> <li>Artisanal repairmen are generally trained to repair boreholes by NGOs/projects or technical services.</li> </ul>	<ul> <li>They offer a wide range of products to meet the needs of their customers (see list in Table 26).</li> <li>Depending on customer demand for the products, they can expand the range of products generally offered.</li> </ul>

	Segments:	Segments:	Segments:
	<ul> <li>Households in communes without latrines or without good quality latrines.</li> <li>Public and private administration.</li> <li>Projects/NGOs for the implementation of latrine initiatives at the local level.</li> </ul>	WUAs at the communal level.	The main customer segments of hardware retailers are households, masons, welders, projects and administrations. These customers are most often located at the commune level.
	Relations:     Informal relationships     between masons and clients     who are offered the     possibility of payment by     instalments     Honesty towards the clients     and respect for the quality     standards of the latrines.	<ul> <li>Relations:</li> <li>Close relations with WUAs in the village</li> <li>Possibility to make discounts compared to the known price of breakdowns and maintenance</li> <li>Possibility for customers to pay the cost of services in</li> </ul>	<ul> <li>Relations:</li> <li>Multiple and long-term transactions.</li> <li>Hardware retailers maintain good relationships with customers. As a result, they offer instalment payment options to customers in order to build customer</li> </ul>
Clients	Channels:  Clients are often reached through communication actions for behavioral change of projects acting at the local level  Word of mouth from friends and relatives  Use of mobile phones to communicate with clients	installments  Channels:  Word of mouth from friends and relatives  Use of mobile phones to talk to customers	loyalty and meet their needs.  Channels: Exhibition of products/articles at the edge of the public highway Communication through local radio Use of personal relationships in the community Word-of-mouth communication Attachment of a nameplate for indicating hardware Putting courtesy values into practice with customers Use of street vendors to sell products on market days Use the opportunity offered by the projects to promote products.
Infrastructures	<ul> <li>Key Partners:</li> <li>Hardware suppliers of products used in masonry work.</li> <li>NGOs/Projects working at the local level</li> </ul>	<ul> <li>Key Partners:</li> <li>Mayor office</li> <li>NGO/projects</li> <li>Water User Associations (WUA)</li> </ul>	<ul> <li>Key Partners:</li> <li>Households</li> <li>Presidents of businesses</li> <li>Suppliers based in Kaya and Ouagadougo</li> </ul>

	Resources:	Resources:	Resources:
	Masonry tools (shovels,	Working materials	• Stores
	trowels, squares, plumb	(wrenches, vice,	Employees (human
	line, level, tape, etc.).	screwdriver, pliers, etc.)	resources) to support in the
	Laborers (masonry helpers)	Apprenticeship aids	sale or delivery of products
			Delivery equipment (most
			common tricycle)
	Key Activities:	Key Activities:	Key Activities:
	Construction of latrines	Borehole repair;	Sale of hardware products
	Manage basic financial	Supply of borehole	Delivery of products
	transactions	maintenance and repair	Supply of products from
		equipment	Kaya and Ouagadougou
			Management of financial
			transactions.
	Revenue Sources:	Revenue Sources:	Revenue Sources:
	Labor for the construction	Labor for the repair of	Sale of products for both
	Labor for the construction of VIP latrines,	Labor for the repair of boreholes	Sale of products for both latrine and building
			•
<b>.</b>	of VIP latrines,	boreholes	latrine and building
bility	of VIP latrines, rehabilitation of traditional	<ul><li>boreholes</li><li>Sales of complete latrines</li></ul>	latrine and building construction
Viability	of VIP latrines, rehabilitation of traditional latrines, latrine repairs	<ul><li>boreholes</li><li>Sales of complete latrines (often with prepayments</li></ul>	latrine and building construction  • Sales prices are fixed based
ial Viability	of VIP latrines, rehabilitation of traditional latrines, latrine repairs • Sales of complete latrines	<ul><li>boreholes</li><li>Sales of complete latrines (often with prepayments</li></ul>	latrine and building construction  • Sales prices are fixed based on the cost of purchase,
ancial Viability	of VIP latrines, rehabilitation of traditional latrines, latrine repairs • Sales of complete latrines (often with prepayments	<ul><li>boreholes</li><li>Sales of complete latrines (often with prepayments</li></ul>	latrine and building construction  • Sales prices are fixed based on the cost of purchase, transport costs and product
Financial Viability	of VIP latrines, rehabilitation of traditional latrines, latrine repairs • Sales of complete latrines (often with prepayments and instalments)	<ul><li>boreholes</li><li>Sales of complete latrines (often with prepayments</li></ul>	latrine and building construction  • Sales prices are fixed based on the cost of purchase, transport costs and product supply and demand.
Financial Viability	of VIP latrines, rehabilitation of traditional latrines, latrine repairs • Sales of complete latrines (often with prepayments and instalments)  Cost Structure:	<ul><li>boreholes</li><li>Sales of complete latrines (often with prepayments</li></ul>	latrine and building construction  • Sales prices are fixed based on the cost of purchase, transport costs and product supply and demand.  Cost Structure:
Financial Viability	of VIP latrines, rehabilitation of traditional latrines, latrine repairs • Sales of complete latrines (often with prepayments and instalments)  Cost Structure: • Cost of tools for the work	<ul><li>boreholes</li><li>Sales of complete latrines (often with prepayments</li></ul>	latrine and building construction  • Sales prices are fixed based on the cost of purchase, transport costs and product supply and demand.  Cost Structure:  • Cost of purchase of goods
Financial Viability	of VIP latrines, rehabilitation of traditional latrines, latrine repairs • Sales of complete latrines (often with prepayments and instalments)  Cost Structure: • Cost of tools for the work	<ul><li>boreholes</li><li>Sales of complete latrines (often with prepayments</li></ul>	latrine and building construction  • Sales prices are fixed based on the cost of purchase, transport costs and product supply and demand.  Cost Structure:  • Cost of purchase of goods  • Transport charges
Financial Viability	of VIP latrines, rehabilitation of traditional latrines, latrine repairs • Sales of complete latrines (often with prepayments and instalments)  Cost Structure: • Cost of tools for the work	<ul><li>boreholes</li><li>Sales of complete latrines (often with prepayments</li></ul>	latrine and building construction  • Sales prices are fixed based on the cost of purchase, transport costs and product supply and demand.  Cost Structure:  • Cost of purchase of goods  • Transport charges  • Rental and store operating

Example of a business model simulation for a mason. This shows different types of latrines with the costs of labor included for each type of latrine.

Table 19: Cost of labor for each type of latrine

CATEGORY	NUMBER OF LATRINES CONSTRUCTED	COST FOR LABOR FOR EACH TYPE OF LATRINE	TOTAL COST IN FCFA
VIP I tank	4	25000	100000
VIP 2 tanks			
SanPlat Latrine	6	15000	90000
Traditional Latrine	I	7500	7500
ECOSAN 2 pits	2	25000	50000
Shower	4	7500	30000
Total			277 500

#### MAPPING OF RISK AND MITIGATION MEASURES

Discussing risk in the current context is sensitive, therefore the Consultant identified risks only during interviews with the hardware dealers. This table summarizes the main risks as well as the mitigation measures associated with these risks.

Table 20: Mapping of risks and mitigation measures for hardware retailers

OCCURRENCE/IMPACT RISKS	PROBABILITY OF OCCURRENCE I RARE, 2 UNLIKELY, 3 POSSIBLE, 4 LIKELY 5 ALMOST CERTAIN IMPACT	IMPACT  I NOT SIGNIFICANT, 2 MINOR 3 MODERATE 4 MAJOR 5 VERY SIGNIFICANT	MITIGATION MEASURES
Population movement	3	3	Monitoring population movement and adjusting interventions as needed. Coordinating with the humanitarian actors
Loans to households	3	4	Payment in installments up to the equivalent of the price of the product before installing the latrine
Unwilling to pay	4	5	People may have significantly over reported their willingness to pay
Insecurity (theft)	4	4	Securing populations
Insufficient financial resources	2	2	Saving money in a financial institution
Product Sell Out	3	3	Promotion of products to households
Competition	4	2	Find quality products
Insecurity (terrorism)	5	5	Monitor the security situation and adjust as needed
Non-recovery of funds	I	4	Signing commitments with those who take appropriations
Bankruptcy	3	3	Seeking grants and contracts
Disruption of markets due to COVID-19	4	5	Regular market monitoring, and economic recovery activities

The insecurity risk is the highest both in terms of probability of occurrence (5) and impact (5) and has few mitigation measures. This therefore indicates that it is almost certain in the opinion of the respondents that insecurity can affect different localities with very significant impacts on households. This risk alone can jeopardize the implementation of the ViMPlus project. The other risks mentioned are the displacement of the population, loans granted to households, theft, lack of financial means, product sales, competition, non-recovery of funds and bankruptcy.

#### **DISCUSSION**

The current sanitation market penetration is limited with just over half of the households having a latrine. This offers an opportunity for businesses to gain customers, however, financial barriers to accessing latrines may inhibit many sales. It would be important to explore modalities to financing including: smart subsidies to the poorest of the poor; Income generating activities (IGA) depending on the market analysis on the viability of these IGAs, such as through the ViMPlus youth-led market assessment and mutual aid in solidarity at the community level and working with the businesses for customers to pay in installments.

While there is a financial barrier, it is important to note that **99.16**% of households surveyed in the study own their homes. In other studies, land ownership and space to build latrines has been noted as an important driver for latrine construction. Not owning your home can be a disincentive to construct a latrine as there is a risk of moving and losing your investment (O'Connell, 2014). It may be important for ViMPlus SBC strategy to build on this driver to motivate households to invest in a latrine on their property. During the focus groups, people also expressed willingness to contribute financially to WASH products/services, but it is also important to note that there is often a gap between what people say they are willing to pay and what they will actually pay when it comes to investing. It is also noted that people chose their preferred latrine for a range of reasons including: modern, odorless, easy to clean, easy to build, affordable, and long lasting. In the FGDs, men and women agree that an ideal latrine should be: clean and tidy, have a cover for the hole, have a handwashing and soap station, have plastered walls, a roof and door and a ventilation pipe. In addition to these characteristics, the women added that the latrine must have a well-designed and deep pit and must also be odor-free. These factors can also be integrated into business marketing strategies.

Many of the masons interviewed report competencies in constructing different types of latrines. However, given that latrine collapses and technical issues around latrines are a consideration, it would be important to ensure that there is strengthened capacity building around agreed upon technical designs. Masons and repairmen may be motivated to do WASH marketing because of the existence of customers and because of a desire to expand the business. This marketing can be coupled with CLTS or other participatory approaches, such as the *Groupes d'Apprentissage et de Suivi des Pratiques optimales d'Alimentation* (GASPAs), government-mandated community nutrition groups predominantly for women, to help generate demand.

For an effective community-wide outreach to households, it could, for example, be useful to raise awareness among existing hardware stores to strengthen their capacity for action and outreach throughout the commune to bring products and services closer to households. Given that the decision-making about WASH products and services is mainly made by the head of household (mainly male), they are a key demographic to target. However, women are responsible for deciding on simple products such as soap, small water collection and storage materials (20-litre jerry cans, basins, etc.) and thus could be included in the marketing strategy for these purchases.

The current business models appear to work due to the existence of little competition for some suppliers such as artisanal repairers who have been trained and licensed to repair boreholes. However, small suppliers of products and services (small hardware stores, artisanal masons) are struggling to survive in an environment dominated by large suppliers of products and services (large hardware stores). Competition is beginning to be felt by some suppliers and appropriate approaches to marketing and customer retention need to be developed.

Implementing a WASH markets approach in ViMPlus will require human, financial, and material resources. This will include a) marketing, communication and business development expertise, b) creating and using marketing and communication tools adapted to the targets in the different

communes; c) training business partners on technologies, financial and business management and social mobilization to encourage the acquisition of products and services from suppliers; d) transport funds; and f) funds for targeted subsidies for the most economically vulnerable households.

#### LIMITATIONS OF THE STUDY

There are several limitations to this study. Given security challenges, we collected data in only three communes. Tablets were unavailable during the data collection time period, resulting in the use of paper forms. This then resulted in a long period of data analysis and processing. Finally, although follow-up was conducted, some of the identified key informants were unavailable for interviews. Finally, while the number of households interviewed per commune were split equally, for wealth group, very few very poor and wealthy groups were interviewed. Therefore, the sample size is not representative for disaggregation by wealth group and desegregated results should be taken with caution.

#### CONCLUSIONS AND RECOMMENDATIONS

Based on this study, recommendations are as follows:

- I. Connect demand generation activities in ViMPlus (through the integrated social and behavior change activities and through community led total sanitation) with supply side activities. This includes clearly highlighting existing business opportunities in WASH and share them with the different providers of WASH products and services (hardware, masons, artisanal repairmen, vendors of borehole spare parts, prefabricators). Support existing businesses by strengthening their capacity, particularly in terms of marketing/sales, business development, and how they can transport goods to cover more villages.
- 2. Consider developing low-literacy training materials and sales tracking tools given the low literacy among some groups (such as 50% of hardware store managers who are illiterate and 39% who have only primary school education), as identified during the assessment.
- 3. Encourage existing masons, hardware dealers, artisan repairers, vendors of spare parts for boreholes to increase the supply of WASH products and services, while not disconnecting them from their current activities such as agriculture, livestock, etc. to ensure the viability of their business models.
- 4. In line with similar projects in Burkina Faso and given that cost has been identified as the main barrier to latrine construction (both during this study and during the ViM final evaluation), consider smart latrine subsidies.
- 5. Work with the ViMPlus Livelihoods component to promote village savings and loans and income-generating activities that could be used to purchase WASH products and services.
- 6. Collaborate with the ViMPlus youth-led local market assessment to determine if there are opportunities for youth entrepreneurs to include WASH-related products and services as part of their diversified portfolio. Do not create new "WASH businesses" as part of the project as they will likely be viable or able to compete with existing businesses.
- 7. Recognize that WASH marketing activities will not be accessible to all, in particular the extremely vulnerable. In collaboration with the WASH Cluster, consider emergency WASH service delivery approaches for IDPs in the project area, for improved access to water, water treatment products and sanitation services. In addition, regular program monitoring is critical to consider how markets are being affected by displacement and insecurity.
- 8. Reinforce ViMPlus staffing and skills to support a MBS approach including skills in design, marketing, business development, entrepreneurship, and financial management.
- 9. Given that males are the primarily decision maker when it comes to acquiring a latrine, it will be important to ensure that SBC and marketing interventions target this demographic.

- 10. Given concerns that, particularly women have, around trust of NGOs, it would be important to ensure clear community and opportunities for ViMPlus to build trust with communities.
- II. Given the high risk and impact that insecurity may have on the markets, close monitoring and adaptive programming will be necessary.

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#### **ANNEXES**

## ANNEX I: NEEDS OF VILLAGES IN THE 3 COMMUNES ACCORDING TO MEN AND WOMEN FOR WASH SERVICES

HEADINGS	NEED	S IDENTIFIED	BY MEN	NEEDS IDENTIFIED BY WOMEN			
	PISSILA	TOUGOURI	YALGO	PISSILA	TOUGOURI	YALGO	
Water products and services	<ul> <li>Increasing the number of drillings</li> <li>Means for repairing boreholes</li> <li>Construction of new boreholes, water reservoirs, etc.</li> </ul>	Rehabilitat ion of the AEPS     Increase the number of hydrants     Increase the number of boreholes in neighborh oods     Small water reservoirs for	More drilling for the population     Installing the EPSA     Equipment/mat erials such as carts, plastic barrels     Bolts for water supply	Increase the number of drilling Train repair craftsmen Fountain and watering posts for drinking water	Increase drilling Rehabilitat ing the number of EHEAs Reduce the price of water Making fire hydrants	<ul> <li>Realization of new drillings</li> <li>Borehole rehabilitation</li> <li>Motor pumps for the women's group.</li> </ul>	
Hygiene and sanitation products and services	<ul> <li>Provide latrines in all households</li> <li>Develop IGAs and livestock for the community</li> <li>Awareness raising on hygiene and sanitation</li> </ul>	animals  Making family latrines  Make garbage cans for each family  Availability of materials to help collect garbage  Manure pits  Showers and lost wells  Need for fencing to create animal enclosures	Supporting households without latrines to obtain them Increase Awareness Energize WASH committees by recycling them through training and awareness sessions Train and retrain WASH committees for continuous monitoring at the household level Developing IGAs to	<ul> <li>Latrine, garbage cans,</li> <li>IGA,</li> <li>Hand wash, sump</li> </ul>	Water conservation equipment     Latrines     Manure pits     Wash your hands,     Rakes     Basins, buckets, nets.	Washing kitchen utensils     Sweeping the yard     Subsidize latrines     Offer dunghills to women.	

• Subsic	ly reduce		
for the	e household		
consti	ructi poverty		
on of			
manui	re e		
pits.			

### ANNEX 2: WASH PRODUCTS AND SERVICES AVAILABLE IN THE VILLAGES OF THE 3 COMMUNES

HEADINGS	WASH PR AVAILABLE	ODUCTS AND IN VILLAGES A TO MEN	SERVICES ACCORDING	WASH PRODUCTS AND SERVICES AVAILABLE IN VILLAGES ACCORDING TO WOMEN			
	PISSILA	TOUGOURI	YALGO	PISSILA	TOUGOURI	YALGO	
Water products and services	<ul> <li>Repairing craftsmen</li> <li>Large-diameter well.</li> </ul>	<ul> <li>Drilling</li> <li>Large- diameter well</li> <li>Traditional Wells</li> <li>AUE</li> </ul>	<ul> <li>AEPS</li> <li>Large-diameter well</li> <li>Repairing craftsmen</li> <li>AUE</li> <li>Drilling</li> <li>Cans</li> <li>Water tower (not functional)</li> </ul>	<ul> <li>Craftsmen Repairers</li> <li>Drilling</li> <li>Well</li> </ul>	Drilling     AEPS     Large     diameter     wells	Drilling     Large-diameter well     Carts     Cans     Plastic bucket     Jars     Calabash	
Hygiene and sanitation products and services	WASH     Committee     Masons     WASH     Hardware     Latrine     Waste bins	Latrine     Traditional showers     Sanplat latrine     VIP latrine     Wheelbarr ow     Mason	Latrines     Bottles for drinking water     ATPC Commitee     Latrine     Brooms, rakes, shovels     Wheelbarr ows, carts     Garbage bins     Masons     Community health agents for sensibilisati on (ASB)	<ul> <li>Latrines</li> <li>Hardware</li> <li>VIP latrine</li> <li>Traditional latrines</li> <li>Handwashing stations</li> </ul>	Latrines Cans Plastic bucket Kettle Handwashi ng station Cans for defecation	Latrine     Clothes washing     Brooms     Latrines     Cans for defecation     Shower	

### ANNEX 3: WATER, SANITATION AND HYGIENE PRODUCTS AND SERVICES PREFERRED BY MEN AND WOMEN

DRINKING WATER PRODUCTS/SERVICES	MALE PREFERENCES			FEMALE PREFERENCES		
PRODUCTS/SERVICES	PISSILA	TOUGOURI	YALGO	PISSILA	TOUGOURI	YALGO
Forages	✓		✓	✓		✓
Bornes Fontaines à proximité des ménages	✓	✓		✓		
Branchement privé					<b>✓</b>	
Boulis	✓		✓			
Château d'eau avec pompe solaire	✓		✓			
Fûts en plastique avec couvercle pour la conservation de l'eau		<b>~</b>	<b>√</b>		<b>√</b>	✓
Seau en plastique avec couvercle		<b>✓</b>			✓	
Jars en ciment		✓				
Bidons de 20 l		✓			✓	
Charrette			✓			
Pousse-pousse					✓	✓
Bassine en plastique					<b>✓</b>	
Poly tank			✓			
Sensibilisation sur l'entretien et l'utilisation des sources d'eau		<b>✓</b>		✓		
Réparation des forages	✓					
Mise en place des comités de gestion des forages				✓		

HYGIENE AND SANITATION	MALE PREFERENCES			FEMALE PREFERENCES		
PRODUCTS	PISSILA	TOUGOU RI	YALGO	PISSILA	TOUGOUR I	YALGO
Latrines Sanplat	✓	<b>✓</b>	<b>√</b>	✓	<b>✓</b>	
Latrines Sanplat adaptée aux menstrues					<b>✓</b>	
Latrine VIP		✓	<b>√</b>	✓		✓
Poubelles	✓	<b>√</b>		✓		✓
Dispositif de lavage des mains	✓	<b>√</b>		<b>√</b>	<b>√</b>	
Douche-puisard		<b>✓</b>	<b>√</b>	✓		
Bac à laver					✓	
Savon en boule		✓	<b>√</b>		<b>√</b>	
Savon liquide					<b>✓</b>	
Râteaux		✓	✓			
Balais		✓	<b>√</b>			
Pot pour enfants		✓	✓			
Brouette		✓	✓			✓
Fosse fumière					<b>✓</b>	✓
Enclos pour les animaux			✓			
Réhabilitation des latrines						✓

## ANNEX 4: MOTIVATIONS AND CAPACITY TO ACQUIRE WATER SERVICES AND PRODUCTS

WATER SERVICES/PRODUCTS	MOTIVATIONS (MEN)	MOTIVATION (WOMEN)	ACQUISITION CAPACITY IN FCFA ACCORDING TO MEN	ACQUISITION CAPACITY IN FCFA ACCORDING TO WOMEN
Forages	Disponibiliser Utilisation facile et très pratique Facilite l'accès à l'eau potable l'eau potable en quantité et qualité; Eau des forages est source de santé		150 000 FCFA 300 000 en trois tranches 500 000 pour tout le village	150 000 FCFA pour tout le village
Bornes Fontaines à proximité des ménages	Facilité de transport et la collecte de l'eau	Manipulation facile	200 000 (Installation BF) 2500/mois pour facture mensuelle	200,000
		Facilite l'accès à l'eau potable		1250/mois
Boulis	Elevage  Confection des briques  Maraichage		500 000 en trois tranches	
Fûts en plastique avec couvercle pour la conservation de l'eau	Meilleure conservation de l'eau Fût inoxydable car il ne se rouille pas		5000	
Seau en plastique avec couvercle	Bonne conservation de l'eau de boisson	Bonne conservation de l'eau et bonnes pratiques en matière d'hygiène Disponible	2500	1000

		Faible coût		
Jar en ciment	Préservation de l'eau contre le chauffage		2000	
	Meilleure protection de l'eau			
Bidons de 20 I	Facilité du transport de l'eau de boisson	Facile à laver et disponible	500	500
Bassine	Facilite le stockage de l'eau	Durabilité et résistance du fut en plastique (en plastique)	2750	2750
Matériels de transport d'eau et équipements (Charrette, poly tank)	Facilité du transport et de conservation de l'eau		100 000	
Pousse Pousse		Facilite la collecte de l'eau potable		20 000
Sensibilisation dans la conservation et l'hygiène de l'eau			Pas de coût à payer mais effectuée par des bénévoles du village	
Réparation des forages	Disponibilisation de l'eau en permanence		25 000	

### ANNEX 5: MOTIVATIONS AND CAPACITY TO ACQUIRE SANITATION SERVICES AND PRODUCTS

PRODUITS ET SERVICES D'HYGIENE ET D'ASSAINISSEMENT	MOTIVATIONS (HOMMES)	MOTIVATION (FEMMES)	CAPACITE D'ACQUISITION EN FCFA SELON LES HOMMES	CAPACITE D'ACQUISITION EN FCFA SELON LES FEMMES
Latrines Sanplat	Coût accessible, Préservation contre la honte, Inexistence de brousse pour la défécation à l'air libre, Préservation contre les maladies	Protection contre les maladies, Préservation contre la honte, Préservation contre la DAL	I5 000 Capacité de prendre tout le montant en charge	7500
Latrine Sanplat adaptée aux menstrues	xx	Utile à bien gérer les menstrues, Pour éviter la DAL	xx	10,000
Latrine VIP	Préservation contre les maladies ; Maintien de bonne santé ; Préservation de la dignité ; Préservation contre la honte	Efficacité et utilisation facile ; Maintien de la santé par la proprete, Préservation contre la DAL	5000	20,000
Poubelle	Meilleure pratique d'hygiène et d'assainissement Accessibilité à travers la mairie Utilité dans le rassemblement des ordures	Rassemblement facile des déchets ménagers	7500 ; 50% du coût de l'ouvrage ; 500	2000-3000
Dispositif de lavage des mains	Coût accessible  Préservation contre les maladies  Maintien en bonne santé	Manipulation facile Protection contre les maladies	Capacité de prendre tout le montant en charge	800

Douche-puisard	Préservation contre les maladies  Maintien en bonne santé  Préservation de la dignité  Maintien des lieux propre	Réalisation facile Contribue à diminuer les moustiques	10 000	10 000
Savon	Préservation contre les maladies	Facile à utiliser (boule et liquide)	250	250
Râteaux	Utilité pour le rassemblement des ordures		500	
Balais	Utilité dans le nettoyage de la cour			
Pot pour enfants	Préservation contre la honte			
Brouette	Utilité à rassembler les ordures	Facilite le ramassage des ordures	10 000	5000-10 000
Enclos pour les animaux	Séparation des animaux avec les cours		1000	
Fosse fumière	Maintien des ménages propres Production de fumier pour les champs	Permet de rassembler facilement les déchets et produit du fumier pour les champs	15 000	1000
Sensibilisation sur les bonnes pratiques en matière d'hygiène et d'assainissement	X	X		X
Réhabilitation de latrines		Pour éviter la DAL		5000

### ANNEX 6: PREFERRED COMMUNICATION CHANNELS BY COMMUNE AND INCOME LEVEL

	MÉNAGES NANTIS	MÉNAGES MOYENS	MÉNAGES PAUVRES	MÉNAGES TRÈS PAUVRES	A L'ÉCHELLE COMMUNALE
Pissila	80% prefer sensibilisation, 20% audio/video messages, 13% posters, 7% causeries.	60% prefer sensibilisation, 20% audio/video messages, 13% posters, 7% causeries.	71% prefer sensibilisation, 21% audio/video messages, 7% posters, 7%	100% prefer sensibilisation.	72% prefer sensibilisation, audio/vidéo
Tougouri	Audio/vidéo (67%) and 33% sensibilisation	Sont les causeries (43%), la sensibilisation ainsi que les messages audio/vidéo (proportion identique de 29%).	A l'échelle communale de ménages pauvres, quant à eux, préfèrent la sensibilisation à 57%, les messages audio/vidéo à 23%, les causeries (13%) et les affiches (7%).		Les préférences des ménages sont successivement la sensibilisation (les messages audio/vidéo (23%), les causeries (20%), et les affiches (10%)
Yalgo	La sensibilisation (67%) et les causeries (33%).	Les moyens de communication préférés sont les messages audio/vidéo (75%), la sensibilisation et les causeries (13% chacun).	Les ménages pauvres, quant à eux, préfèrent la sensibilisation à 30%, les messages audio/vidéo à 20% et les causeries à 50%.	En ce qui concerne les ménages très pauvres, les causeries et les messages audio/vidéo sont préférés à 50% pour chaque canal de communication.	A l'échelle communale, les préférences des ménages sont successivement les messages audio/vidéo (44%), les causeries (32%) et la sensibilisation (24%).

# ANNEX 7: DISPONIBILITÉ DES PRODUITS ET SERVICES WASH DANS LES COMMUNES CHEZ LES QUINCAILLERS

	PISSILA	TOUGOURI	YALGO	MOYENNE TOTALE
Produits assainissement				
Dalle en béton				
Disponibilité de la dalle en béton :				
Oui	17	33	-	17
Non	83	67	100	83
Prix moyen de la dalle en béton	7 500	13 000	***	10 250
Dalle en plastique				
Disponibilité de la dalle en plastique (%) :				
Oui	-	-	-	-
Non	100	100	100	100
Prix moyen de la dalle en plastique				
Dalle en bois				
Disponibilité de la dalle en bois (%) :				
Oui	-	-	-	-
Non	100	100	100	100
Prix moyen de la dalle en bois				
Superstructure				
Briques en ciment				
Disponibilité des briques en ciment (%) :				
Oui	17	50	-	22
Non	83	50	100	78
Prix moyen des briques en ciment	150	250	***	200
Blocs cuits au soleil (briques en terre séchée au soleil ou banco)				
Disponibilité :				
Oui	-	33	-	Н

	PISSILA	TOUGOURI	YALGO	MOYENNE TOTALE
Non	100	67	100	89
Prix moyen		9 500	***	9 500
Blocs de béton				
Disponibilité :				
Oui	-	-	-	-
Non	100	100	100	100
Prix moyen				
Tôle ondulée				
Disponibilité (%) :				
Oui	83	33	50	55
Non	17	67	50	
Prix moyen	3 550	2 938	3 500	3 329
Existence de matériaux de construction locaux (paille, secco, nattes de tiges de mil, etc.)				
Disponibilité (%) :				
Oui	-	-	-	-
Non	100	100	100	100
Prix moyen				
Accessoires pour toiture:				
Chevrons (bois)				
Disponibilité (%) :				
Oui	50	83	17	50
Non	50	17	83	50
Prix moyen	5 167	5 300	6 250	5 572
Fers d'attache				
Disponibilité % Oui :	100	100	100	100
Prix moyen	200	383	208	264
Pointes de tôles				
Disponibilité % Oui :	100	100	100	100
Prix moyen	750	890	600	747
Tuyau en PVC				
Disponibilité :				
Oui	33	50	33	39
Non	67	50	67	61

	PISSILA	TOUGOURI	YALGO	MOYENNE TOTALE
Prix moyen	4 000	6 000	5 500	5 167
Briques creuses/ Claustra				2 1.51
Disponibilité :				
Oui	-	50	17	22
Non	100	50	83	78
Prix moyen	***	317	300	309
Porte		317	300	307
Porte en tôle ondulée				
Disponibilité :				
Oui	50	50	33	44
Non	50	50	67	56
Prix moyen	9 333	10 000	10 000	9 778
Porte métallique				
Disponibilité :				
Oui	67	67	50	61
Non	33	33	50	39
Prix moyen	25 500	18 750	20 833	21 694
Ciment CPJ 45:				
Disponibilité :				
Oui	67	83	33	61
Non	33	17	67	39
Prix moyen	5 938	6 000	6 000	5 979
CPJ 35				J
Disponibilité :				
Oui	83	83	17	61
Non	17	17	83	39
Prix moyen	5 5 1 1	5 500	5 500	5 504
Fer:	3311	3 300	3 300	3 30 1
Fer de 6				
Disponibilité :				
	/7	on.	F0	47
Oui	67 33	83 1 <i>7</i>	50 50	67
Non Prix moven	1 250	l 250	1 417	33 I 306
Prix moyen Fer de 8	1 230	1 230	1 71/	1 300
Disponibilité :				
Oui	67	83	50	67
Oui	١, ,	03	30	<b>5</b> /

	DICCH A	TOUGOUR	VALCO	MOYENNE
	PISSILA	TOUGOURI	YALGO	MOYENNE TOTALE
Non	33	17	50	33
Prix moyen	2 125	2 250	2 267	2 214
Fer de 10				
Disponibilité :				- /
Oui	50	67	50	56
Non	50	33	50	44
Prix moyen	3 500	3 813	4 500	3 938
Fer de 12				
Disponibilité :	50	50	17	39
Oui				
Non	50	50	83	61
Prix moyen	5 167	5 500	6 250	5 639
Divers autres matériaux :				
Claustra d'aération				
Disponibilité :				
Oui	33	83	17	44
Non	67	17	83	56
Prix moyen	250	400	500	383
Fils de fer recuit				
Disponibilité :				
Oui	67	83	100	83
Non	33	17	-	17
Prix moyen	583	700	650	644
Grillage anti-moustique				
Disponibilité :				
Oui	33	50	50	44
Non	67	50	50	56
Prix moyen	I 000	I 833	I 500	I 444
Goudron pour enduit de la cabine				
Disponibilité :				
Oui	83	83	83	83
Non	17	17	17	17
Prix moyen	3 750	7 000	5 030	5 260
Couvercle pour trou de défécation				
Disponibilité :				
Oui	17	33	-	17

	PISSILA	TOUGOURI	YALGO	MOYENNE TOTALE
Non	83	67	100	83
Prix moyen	I 500	I 250	***	I 375
Petit équipement et outillage				
des maçons				
Moules de dalle				
Disponibilité :				
Oui	17	33	-	17
Non	83	67	100	83
Prix moyen	3 000	25 000	***	
Moules de claustra				
Disponibilité :				
Oui	17	50	-	22
Non	83	50	100	78
Prix moyen	12 500	13 333	***	12 917
Moules de briques				
Disponibilité :				
Oui	17	67	-	28
Non	83	33	100	72
Prix moyen	12 500	18 125	***	15 313
Niveau maçon				
Disponibilité :				
Oui	67	67	33	56
Non	33	33	67	44
Prix moyen	I 483	2 000	2 000	I 828
Fil à plomb				
Disponibilité :				
Oui	67	50	33	50
Non	33	50	67	50
Prix moyen	l 175	333	2 000	l 169
Rubans Im, 2m, 5m				
Disponibilité :				
Oui	100	67	50	72
Non	-	33	50	28
Prix moyen	1 100	l 125	917	I 047
Equerres				
Disponibilité :				
Oui	83	50	33	55
Non	17	50	67	45
l				

	DICCII A	TOUGOUR	YALCO	MOVENINE
	PISSILA	TOUGOURI	YALGO	MOYENNE TOTALE
Prix moyen	I 200	I 333	I 250	I 26I
Règles				
Disponibilité :				
Oui	67	17	17	34
Non	33	83	83	66
Prix moyen	I 375	6 000	8 000	5 125
Truelles				
Disponibilité :				
Oui	83	67	67	72
Non	17	33	33	28
Prix moyen	I 000	1 000	1 000	I 000
Seau maçon				
Disponibilité :				
Oui	33	33	17	28
Non	67	67	83	72
Prix moyen	1 125	I 250	I 500	I 292
Pioches				
Disponibilité :				
Oui	83	67	83	78
Non	17	33	17	22
Prix moyen	I 590	I 938	I 440	I 656
Pelles				
Disponibilité :				
Oui	83	100	83	89
Non	17	-	17	11
Prix moyen	I 200	I 292	I 200	I 23 I
Pics				
Disponibilité :				
Oui	33	67	-	33
Non	67	33	100	67
Prix moyen	I 750	2 000	***	I 875
Taloches				
Disponibilité :				
Oui	67	67	50	61
Non	33	33	50	39
Prix moyen	I 375	I 438	I 833	I 549
Couches, pots et autres			- 555	

	PISSILA	TOUGOURI	YALGO	MOYENNE TOTALE
Disponibilité :				
Oui	_	33	_	П
Non	100	67	100	89
Prix moyen	***	300	***	300
, Filtres à eau				
Disponibilité :				
Oui	_	-	-	-
Non	100	100	100	100
Prix moyen				
Produits de traitement				
Disponibilité :				
Oui	-	-	_	-
Non	100	100	100	100
Prix moyen				
Procédé de traitement I :				
Disponibilité :				
Oui	-	-	-	-
Non	100	100	100	100
Prix moyen				
Procédé de traitement 2 :				
Disponibilité :				
Oui	-	-	-	-
Non	100	100	100	100
Prix moyen				
Procédé de traitement 3 :				
Disponibilité :				
Oui	-	-	-	-
Non	100	100	100	100
Prix moyen				
Ustensiles et récipients de collecte et de stockage de l'eau (cuvette, calebasse jarre, canari, etc.)				
Récipients de transport de				
l'eau				
Seau				
Disponibilité :		F.0		22
Oui	17	50	-	22

	PISSILA	TOUGOURI	YALGO	MOYENNE TOTALE
Non	83	50	100	78
Prix moyen	1 000	1 017	***	1 009
Bassine				
Disponibilité :				
Oui	-	33	-	11
Non	100	67	100	89
Prix moyen	***	l 125	***	I 125
Barriques/Futs				
Disponibilité :				
Oui	17	67	17	34
Non	83	33	83	66
Prix moyen	15 000	9 667	7 500	10 722
Jerry can/ bidon				
Disponibilité :				
Oui	-	67	-	22
Non	100	33	100	78
Prix moyen	***	813	***	813
Hygiène (lavage des mains)				
Savon				
Savon liquide				
Disponibilité :				
Oui	-	33	-	11
Non	100	67	100	89
Prix moyen	***	300	***	300
Savon en barre				
Disponibilité :				
Oui	-	33	-	11
Non	100	67	100	89
Prix moyen	***	350	***	350
Savon en boule				
Disponibilité :				
Oui	-	50	-	17
Non	100	50	100	83
Prix moyen	***	383	***	383
Robinets				
Disponibilité :			100	
Oui	17	33	100	50

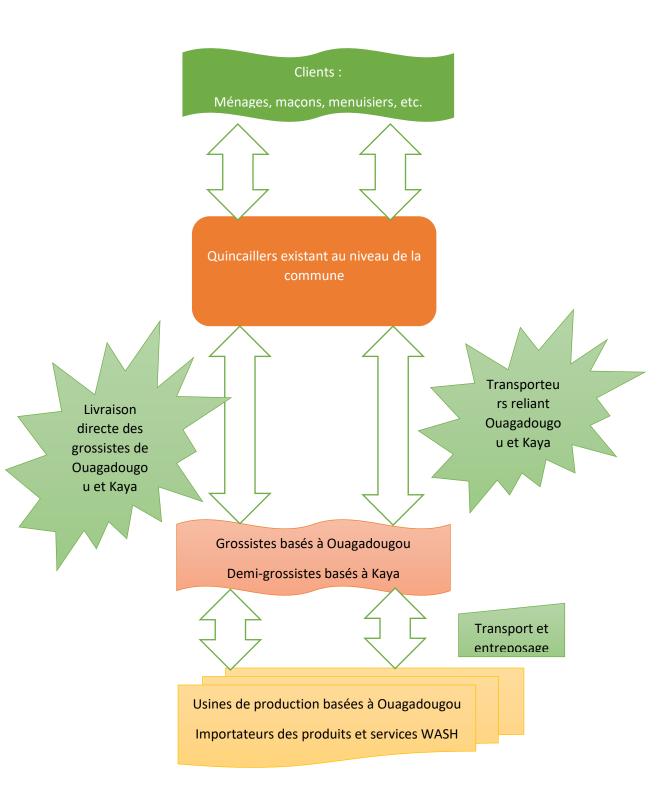
	PISSILA	TOUGOURI	YALGO	MOYENNE TOTALE
Non	83	67	-	50
Prix moyen	I 500	3 750	2 200	2 483
Autres postes/stations de				
lavage				
Disponibilité :				
Oui	17	-	-	6
Non	83	100	100	94
Prix moyen	14 000	***	***	14 000
Entretien ménager				
Matériels utilisés p	our séparer les	s excréments d'an	imaux et de vola	ailles des enfants.
<b>5</b> .1.1				
Balais				
Disponibilité :				
Oui	50	50	67	56
Non	50	50	33	44
Prix moyen	I 333	533	1 000	955
Tapis de jeu				
Disponibilité :				
Oui	-	33	-	11
Non	100	67	100	89
Prix moyen	***	I 500	***	I 500
Râteaux				
Disponibilité :	33	83	67	<b>7.1</b>
Oui Non	67	63 17	33	61 39
	875	I 200	1 125	1 067
Prix moyen  Poubelles	0/3	1 200	1 125	1 067
Disponibilité :				
·				
Oui	-	33	-	11
Non	100	67	100	89
Prix moyen	***	I 400	***	I 400
Gestion de l'hygiène menstruelle				
Des serviettes hygiéniques (faites maison ou vente)				
Disponibilité :				
Oui	-	33	17	17
Non	100	67	83	83
Prix moyen	***	400	1 100	500

	PISSILA	TOUGOURI	YALGO	MOYENNE TOTALE
Des vêtements en coton utilisés pour gérer l'hygiène menstruelle.				
Disponibilité :				
Oui	-	33	-	П
Non	100	67	100	89
Prix moyen	***	400	****	400

Table I: Household willingness to pay for WASH products

	∃Pissila				Total Pissila	∃Tougouri			Total Tougouri	■Yalgo				Total Yalgo	Total général
	Moyen	Nanti	Pauvre	Très pauvre		Moyen	Nanti	Pauvre		Moyen	Nanti	Pauvre	Très pauvre		
Moyenne de PxBet	4650	5667	6800	2000	5563	4429	3833	6222	5689	5750	4500	9385	200	6974	6089
Dalle en pastique						400	5000		2700				200	200	1867
Dalle en bois												2750		2750	2750
Ciment	5000				5000	4000	3833	5125	4444						4500
Blocs cuit au soleil	2295	1583	543	2000	1245	7800		4201	4781	788	1075	4499	175	2306	2979
Bloc béton		100	2000		1050			1000	1000			4000		4000	1775
Chevron	4167	6000	4818	3750	4565	1143	1667	2125	1919	1833	750	1682		1594	2623
Fer d'attache	600	200	783	200	524	393	417	752	654	513	100	558		497	596
Pointes de tôles	650	750	1028	750	850	286	333	491	439	255	300	628		470	559
Tuyau PVC		6000	3625		4100	1464	833	1743	1602	1000				1000	1862
Briques creuses/claustra	200		200	250	217	392	500	2504	1917	1000	200	1750		1367	1670
Tôle ondulée	5667	14333	6889	10900	8413	4200	1400	4089	3881	1700	1250	2167	3000	1864	5053
Porter métalique	14556	26667	18556	20000	18320	9625	4500	8933	8649	7600	2000	9231	2000	8100	11463
CPA 45	5650	4063	5563	5125	5298	11357	4500	4591	6833	1750	4250	#DIV/0!	2000	2800	5678
CPJ 35	5488	3250	4463		4582	1250	1167	2038	1804	638		1500	2500	1046	2332
Fer de 6	7313	25500	2379		7454	2058	1333	2083	1923	1080	1500	1661		1457	3433
Fert de 8	3750				3750	750	1333	2083	1636						1813
Fer de 10						750	1333	1625	1333						1333
Fer de 12	5875	6000	5929	5333	5825	5000	4250	5772	5560	650		30000		10433	5943
Claustra aération	3000	3000		3000	3000	8750	2000	2429	3571	500				500	3352
Fil de fer récuit	150	233	250	250	227	300	233	1133	888	875		1500		1188	747
Grillage anti-moustique	1000	350	530	200	475	486	283	604	529			300		300	507
Goudron pou endui de ca	1000	500	7500	1500	3600	321	200	829	669	5000		300		2650	1123
Couvercle pour trou de de	1000	15000	17900	1500	12729	2050	2067	1780	1849	1833	1000	3250	2000	2545	3294
Moule de dalle	500				500	400	250	486	453	500		625		607	477
Moule de claustra	1000		2000		1500	4000	2000	5813	4893						4469
Moule de briques	12167		10250		10889	2788		3375	3207	750				750	5776
Niveau maçon	1000		1333		1250	550		450	510	500		500	1000	625	773
Fil à plomb						488	500	167	369	500				500	383
Ruban	750		1000		875	488		350	411	300				300	465
Equerre	2000				2000	367		400	380	500				500	629
Truelle	250		667		563	770	500	691	700	1067		250	500	790	697
Seau Maçon	500		1250		1063	617	500	917	695	978	600	583	1000	850	826
Pioche	1750	2250	1636	1500	1721	729	750	742	739	525		938		663	994
Pelle	1500	1500	1568	1333	1514	783	750	950	913	750	700	1145		945	1064
Pics	1500		2500	1000	1875	580	1250	723	768	600		750		675	919
Taloche	250	300	375		325	410		538	503	250				250	452
Pot de défécation des en	100	500	2333		1520	293	183	372	342	200		250		238	461
Filtre à eau						230	100	229	216		200	500		350	229

#### **ANNEX 8: SUPPLY CHAIN OF HARDWARE STORES**



### ANNEX 9: MAPPING OF TRAININGS RECEIVED BY THE MASONS AND PERCEIVED CAPACITY BUILDING NEEDS

INTITULÉ DES FORMATIONS REÇUES	DURÉE MOYENNE	BAILLEURS DE FONDS/FORMATEUR	EFFETS DE LA FORMATION
Mécanique	3 jours	Self help Africa	Perfectionnement, sources de revenues
Construction des maisons	5 jours	Programme Faso	Expérience acquise et acquisition des matériels
Formation sur la construction des latrines	l jour		Savoir construire, faire des sapes et crépissages
Renforcer la technique de construction des latrines ECOSSAN et VIP			Négociations des marchés
Gestion des entreprises Menuiserie en bois	7 jours 365 jours	Mission catholique PNB/OCADES	

#### PERCEIVED CAPACITY BUILDING NEEDS

It is important to note that masons are interested in a number of training opportunities and have a willingness to pay as shown in the below table. This could indicate that they are committed to learning more about the sanitation marketing opportunities and expanding business opportunities.

Table 2: Mapping training needs of masons

TITLE OF THE DESIRED COURSES	(AVERAGE) AMOUNT YOU ARE WILLING TO PAY	TITLE OF THE DESIRED COURSES	(AVERAGE) AMOUNT YOU ARE WILLING TO PAY
Increasing performance	50000	Capacity building in latrine construction	10000
To know the techniques of construction of VIP solid latrines	10000	To know how to read the mason's plans and to be able to carry them out.	20000
Building the different types of latrines	10000	Have knowledge about the construction of the different latrines.	15000
Mastering the dosage, and billing	50000	Maitrise des techniques de construction	5000
Good organization and management of activities	7500		