



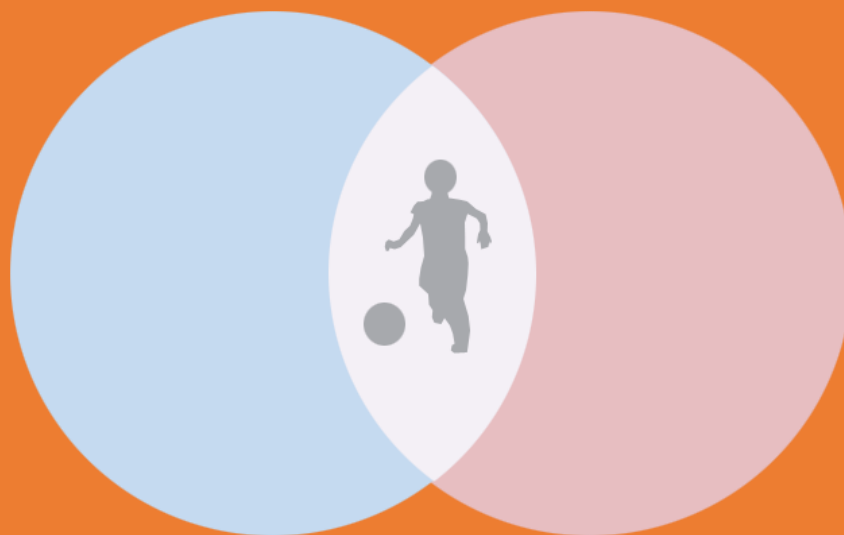
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washplus
Supportive Environments for Healthy Communities



Capitalizing on WASHplus project achievements

*How WASHplus effectively
integrated WASH and nutrition
in Mali*



June 2016



About WASHplus

WASHplus project supports healthy households and communities by creating and delivering interventions that lead to improvements in WASH and household air pollution (HAP). This multi-year project (2010-2016), funded through USAID's Bureau for Global Health and led by FHI 360 in partnership with CARE and Winrock International, uses at-scale programming approaches to reduce diarrheal diseases and acute respiratory infections, the two top killers of children under age 5 globally.

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List of abbreviations

CHC	: Community Health Center
CHW	: Community Health Worker
CLTS	: Community Led Total Sanitation
CNW	: Child Nutrition Week
GW	: Global Water Initiative
IMAM	: Integrated Management of Acute Malnutrition
IYCF	: Infant and Young Child Feeding
MAD	: Minimum Acceptable Diet
ODF	: Open Defecation Free
RDH	: Regional Directorate of Hydraulics
SDA	: Small Doable Actions
URENAM	: Moderate malnutrition care unit
URENAS	: Severe malnutrition care unit
URENI	: Intensive Malnutrition care unit
USAID	: United States Agency for International Development
VSLA	: Village Savings and Loan Association
WASH	: Water, Sanitation and Hygiene

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May all the achievements throughout this project empower us to further refine our future interventions.

Success, long life and prosperity to all!

1. Context

Mali is currently ranked 179 of 188 countries worldwide in the 2015 Human Development Index. It has one of the highest fertility rates in the world and a 2015 child mortality rate of 115 per 1,000 live births. The country experiences food insecurity and poverty that contribute to high undernutrition rates. The causes of undernutrition are complex and varied resulting from a range of factors—insufficient information on appropriate practices and lack of critical supplies and services.

The WASHplus project developed an integrated WASH and nutrition program in the Mopti region at the request of USAID to increase the supply of appropriate, affordable, and sustainable WASH solutions, increase demand for low cost sanitation and improve sanitation, and hygiene practices and nutrition behaviors.

To overcome challenges and harmonize all interventions, WASHplus contributed to funding and participated in activities of a collaborative framework with the regional government technical units



Water point in poor condition

2. Initial situation

In 2014 WASHplus conducted a baseline survey in the intervention area to understand the WASH situation so as to better define project target groups and assess potential changes that the intervention could influence. The study revealed the following information about the intervention area:



Health

35% of households with children less than two years old had experienced diarrhea within two weeks prior to the beginning of the survey.

Water

18% of households surveyed did not know that drinking water must be treated.

5% of households used solid chlorine (Aquatabs) to treat drinking water at home.

15% of households used liquid chlorine (liquid bleach) to treat drinking water at home.

25% of households used jerry cans to transport drinking water.

9% used clay jars to store drinking water.

26% practiced appropriate water conservation methods (a well-covered container out of the reach of children and animals).

Sanitation

22% of mothers disposed of their children's stools hygienically.

53% of households defecated in the open.

Nutrition

6% of children aged 6 to 23 months were receiving a minimum acceptable diet (MAD).

26% of children under 6 months were exclusively breastfed.

Hygiene

66% of respondents washed their hands after defecating.

60% of respondents washed their hands before eating.

22% of respondents washed their hands before preparing meals.

20% of respondents washed their hands before feeding their child.

29% of respondents washed their hands after wiping the buttocks of their child.

The data showed that the majority of households defecated in the open in WASHplus project intervention zones. Few residents used chlorine products to treat water, effectively disposed of their child's feces or washed hands before cooking or feeding children or after cleaning their child's feces. To address these issues, WASHplus built on existing networks and activities from Keneya Ciwara II and other CARE-led projects under the Global Water Initiative (GWI) and WASH in Schools with the involvement of the private sector through other programs funded by USAID. The project also partnered with other stakeholders to promote an improved health system and fundamental hygienic behaviors, by working with several channels at the community level.

3. Brief description of the WASHplus project

WASHplus was a USAID project managed at the global level by FHI360 with CARE USA as the main partner in Mali. WASHplus created and supported interventions that fostered improvements in water, sanitation and hygiene while integrating a nutrition component. The WASHplus project was implemented in partnership with national NGOs, YA-G-TU and Sahel ECO, that carried out technical activities in three districts: Mopti, Bandiagara and Bankass in Mali's Mopti region

General objective

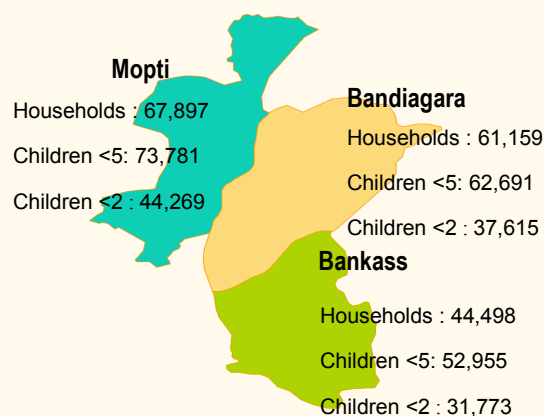
Improve the nutritional status of 19,000 children under 2 years old in 180 villages in the Mopti region.

Specific objectives

1. Increase the supply of appropriate, affordable and sustainable WASH services for poor households and communities in rural and urban areas;
2. Increase the demand for low cost sanitation by poor households and communities in rural areas;
3. Improve sanitation, hygiene and nutrition practices within poor households and communities in rural areas.

Intervention zones

In Mali WASHplus implemented the project in 180 villages spread across 18 municipalities in the healthcare districts of Mopti (flood zone) Bandiagara and Bankass (dry zones).



WASHplus intervention zones

4. Why integrate WASH and nutrition?

The WASHplus project focused on WASH interventions. However, among its strategies, WASHplus continually supported interventions, exploration and experiments to improve WASH situations. Innovations such as integrating WASH with nutrition were introduced because poor hygiene and nutrition behaviors were identified as factors causing malnutrition.

In areas with high open defecation levels, water used for drinking and preparing food was often contaminated and could spread diseases such as diarrhea, especially among young children.

To implement an integrated program, additional resources were mobilized by key stakeholders. This allowed for nutrition screening and referral of children and preventing undernutrition through promoting exclusive breastfeeding until the age of 6 months, and nutritional and dietary diversification.

5. Project Activities

The project integrated **five main** complementary activities and **four cross-cutting activities**.



The main and cross-cutting activities of the WASHplus project

6. Main activities

6.1. Sanitation

6.1.1. Community Led Total Sanitation (CLTS)

CLTS was the project's core activity. This integrated approach encouraged the community to analyze its own sanitation situation as well as its defecation practices and their consequences. The community stimulated collective action to achieve and maintain an open defecation free (ODF) status by building latrines without any external funding.

After the "triggering," the monitoring mechanism established enabled communities to maintain their momentum in constructing latrines and to benefit from technical advice especially for latrines adapted to their geologic zone (rocky, sandy and flood-prone). The monitoring teams assessed sanitation levels in the villages visited and provided practical advice to support progress toward ODF status.

6.1.2. Village ODF certification process

After the village was triggered, a competition was organized between villages within the same municipality and at the district level. Elected officials and the highest authorities in the region - governor, prefect, technical services, USAID and the national sanitation directorate - presided over the ODF certification for the first village in each district. Officials from other villages were invited to attend these initial certification ceremonies.

Officials from villages that were not selected as winners eagerly returned home to encourage their communities to improve efforts. And this fostered healthy emulation among villages. During the ceremony, a certification panel with the name of the village was installed at the village entrance .



An ODF certification panel in Simeye village

6.1.3. WASHplus innovations in latrine construction

Rather than creating a standard latrine model for the entire region, WASHplus considered ecological constraints that populations faced in the different intervention areas. As a result, with the participation of the technical services and some local masons, the team designed different types of latrines suitable to the soil of the area to be sustainable and satisfy household needs. Then local masons were trained on the various approaches, before CLTS triggering.

6.1.4. Post-ODF activities organized by WASHplus to strengthen ODF achievements and community sanitation

To help communities from certified villages maintain the ODF momentum, WASHplus assisted them to develop a post-ODF action plan. Workshops in each district adapted post-ODF tools to WASHplus project achievements. Commissions monitored and evaluated post-ODF action plans and rewarded the best 3 post-ODF villages per commune. All certified villages received sanitation kits to help keep their village clean.

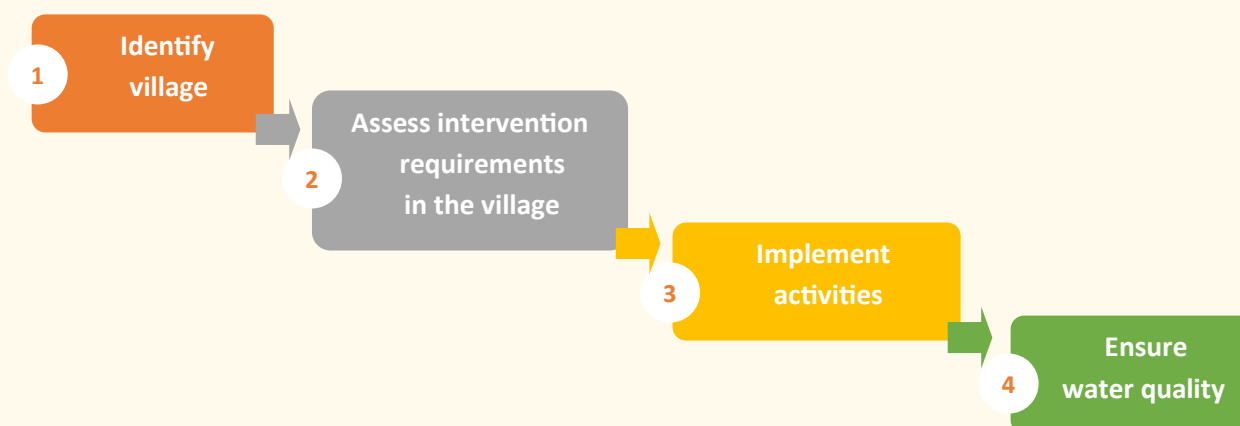
6.1.5. WASH marketing for improving latrines in urban areas

In addition to the rural areas, WASHplus also promoted improved latrine models through the WASH marketing approach in the cities of Mopti, Sévaré, and Bandiagara. This market based approach stimulated demand and supply from the private market to meet the households' needs and encouraged sustainable and local sourcing of sanitation products and services that were affordable and desirable.

More information on WASHplus sanitation activities such as CLTS, ODF and WASH-marketing can be found in the companion document: "[Innovative Sanitation Strategies implemented by WASHplus in Mali.](#)"

6.2. Improving access to quality drinking water

To improve access to water, the project rehabilitated, repaired and/or protected water points in ODF certified villages. Private companies conducted an assessment and made budget proposals for repair, rehabilitation or protection. The process followed is described below :



6.2.1. Identifying villages

ODF certified villages were prioritized to ensure that communities continued to be engaged in constructing and using latrines and regular village cleaning.

6.2.2. Assessing intervention requirements

- ✓ Choice of water points was determined based on whether the area was flood-prone (Mopti) or dry (Bandiagara and Bankass) and followed the national strategy to develop and supply drinking water, which recommends one water point per 400 inhabitants.
- ✓ Communities participated according to the type of intervention chosen for the water point: rehabilitation or repair. The financial contribution for rehabilitation work (in compliance with the national strategy) is 120,000 FCFA for users and 60,000 FCFA for the municipality. Part of the 180,000 FCFA constituted the operating funds (144,000 FCFA, 80%) and the remaining (36,000 FCFA, 20%) was used as the water fund. The operating fund was deposited into a bank account managed by the Management Committee responsible for the maintaining the water point.



Water, hygiene and sanitation committee with their repaired wide diameter well at Sevey , Mopti district

6.2.3. Implementing activities

The selected villages that met the above mentioned requirements for intervention were grouped by type of work and by district. The results of the diagnostic studies determined the work required for each water point. A private company completed the work directed by the firm that conducted the studies and supervised by the project's infrastructure advisor with support of local staff from the Mopti Regional Directorate of Hydraulics.



*Rehabilitated modern well in Nounou
(Bandiagara district)*



*Rehabilitated modern well in Songobia
(Bandiagara district)*

6.2.4. Monitoring and control of water quality by the Mopti regional water analysis laboratory

Before being transferred to the community, the Mopti regional water analysis laboratory inspected and certified the rehabilitated water points to be sure the water quality was free of chemicals, bacteria and arsenic.



Testing of water at the Mopti regional water analysis laboratory

6.3. Hygiene promotion

WASHplus implemented several hygiene promotion strategies, including :

- ✓ Strengthening capacity of the local relais;
- ✓ Treating water with chlorine products in community health centers and villages;
- ✓ Handwashing with soap at critical times including making tippy-taps.

6.3.1. Strengthening capacity of the relais

The project strengthened the relais' capacities to use chlorine products to treat water and best practices for the transporting, storing and conserving water. They learned about water borne diseases, simple water treatment methods using Aquatabs and bleach, using WASH-nutrition counseling cards, making tippy-taps, complying with good hygiene practices and nutrition demonstrations.



Tutorial on how to use WASHplus visual supports during a training workshop of community agents in Bankass



Training relais and CHWs on demonstration techniques in Tori

6.3.2. Water treatment with chlorine products

Relais were trained on water purification techniques with chlorine products and then conducted demonstration sessions in the community. Aquatabs were sold in the villages by relais, shopkeepers, community health centers, and mobile vendors. The village of Soguinadou also opened a shop where water treatment products are being sold to facilitate community access to products.

Having noted a reduction in diarrhea incidence after adopting water treatment techniques, Soguinadou village opened a water treatment products store.

« Before the project, we drank untreated water and diarrheal diseases were common. WASHplus informed us that these diseases are linked to the consumption of unsafe water. We have therefore started to treat our water before drinking it. Since then, we have seen a reduction in diarrhea cases. The villagers have decided to keep treating their drinking water with chlorine products and thus reduce expenses related to treating diseases. So we set up a sanitation shop within the village.»



Anye Fongoro (left), Soguinadou village chief (Municipality of Tori, Bankass Circle)

6.3.3. Promoting handwashing with soap at critical times and use of tippy-taps

In addition to rehabilitating and testing quality of water points, rigorous hygiene measures were applied in certified villages. These included handwashing with soap before eating, after using the toilet, and before preparing food. Moreover, the manufacture and use of tippy-taps was encouraged in intervention villages through a competition on Global Handwashing Day and tippy tap integration was a criterion in evaluating the most effective post-ODF villages. This sparked good attitudes and practices within communities and led to improvements in their health.



Learning how to wash hands with soap



Use of a tippy-tap device installed near the kitchen for handwashing before cooking

6.4. Preventing malnutrition

Practicing appropriate hygiene measures also protects children against malnutrition by preventing diarrhea. WASHplus nutrition interventions focused on:

- ✓ Screening and referring malnourished children;
- ✓ Covering the expenses of women accompanying malnourished children to the intensive malnutrition care unit (URENI);
- ✓ Promoting exclusive breastfeeding;
- ✓ Demonstrating nutritious supplementary food using local products.

6.4.1. Screening and referring malnourished children

After their training/retraining, relais and community health workers (CHWs) received bikes from the project and Shakir bands from the healthcare services to facilitate screening children in the villages and referring the malnourished to community health centers (CHC). Project facilitators were trained on the protocols of Integrated Management of Acute Malnutrition (IMAM) so they could carry out screenings, referrals, infant and young child feeding (IYCF) and hygiene related activities. CHC workers were also supported by the project facilitators during the screening days at the CHC and in monitoring the relais' village work.



Sibi Sibi relais and CHW with their bikes with the WASHplus and USAID project managers



A relais with his bike for screening and referring malnourished children

6.4.2. Covering the expenses of women accompanying malnourished children

The high dropout rate of severely malnourished children with complications at the URENIs of Bankass and Bandiagara (e.g., 17% in Bankass in 2013), led the project to sign partnership agreements with reference health centers in these districts to provide project support (food and transportation) to women accompanying malnourished children. This assistance significantly reduced the dropout rate

(now as low as 1%) in these centers. To continue this activity, WASHplus provided funding to increase some Village Savings and Loan Associations' (VSLA) working capital. They have institutionalized a 5% rate to support their solidarity fund. Thus, after the project, women accompanying malnourished children in the village will still receive support from the VSLA for transportation and food during their stay at the URENI

6.4.3. Promoting exclusive breastfeeding

To improve child health, WASHplus linked adopting good hygiene and sanitation behaviors with exclusive breastfeeding for children up to the age of six months. WASHplus also integrated WASH messages into Child Nutrition Week (CNW) celebrations and World Breastfeeding Week activities.



Kadia TESSOUGUE, inhabitant of Sonley

A mother speaking about the link between exclusive breastfeeding and her child's health.

« From his birth to this date, I only gave my child breastmilk. And he has never been sick »



Demonstration of breastfeeding techniques in the Kongasou community health center, Timiniri municipality

6.4.4. Demonstrating nutritious supplementary foods using local products

Relais and facilitators were trained to conduct nutrition demonstrations and diet diversification sessions, especially for small children who start eating complementary food (in addition to breastmilk) at the age of 6 months. Diarrhea occurs most often during this period of weaning, and could lead to death or long-term malnutrition problems.

WASHplus led village nutrition demonstrations targeting mothers in households with young children. Women's associations assisted with both village and community health center (CHC) nutrition demonstrations. The most common foodstuffs used in weaning demonstrations were: enriched porridge (millet, beans, peanuts, salt, sugar, monkey bread, tamarind) and larro (cereals (rice, millet, sorghum) + legumes (peanuts, beans) + meat or its derivatives (fish, meat, butter)). Moreover, the relais promoted fruit (mango, papaya, guava...) consumption



Demonstration of cooking affordable foods

easily accessible in local markets





Testimony on the effectiveness of the nutrition demonstrations :

«After the death of his mother, I became the caregiver of this child who was eight months old and malnourished. I joined the nutrition demonstration sessions and since then the child recovered and his condition has improved »

Binta ARAMA Korou village, Timiniri district

7. Cross-cutting activities

7.1. Behavior change

7.1.1. Small Doable Actions (SDA) Approach

New WASH-nutrition tools were developed to strengthen existing tools. Villages where change happened slowly were chosen as the focus of sensitization sessions. Promotional activities for "tippy-tap" devices were also conducted with the participation of school children.

WASHplus worked closely with relais and CHWs to promote behavior change at the household and community levels and to offer support, education, and outreach services at community health centers. They were trained to use the project-developed WASH-nutrition tools to highlight the "Small Doable

Action" approach. Several topics were covered during the training, namely: IYCF, management of child's feces, treatment and storage of drinking water, handwashing with soap, and building tippy-taps.



Relais and CHWs conducting behavior change activities with WASH-nutrition tools

7.1.2. Producing radio programs

The local radio station in each district received a contract to broadcast an awareness campaign. The 45-minute program, broadcast weekly in each district, informed and educated communities on WASH-nutrition topics through organizing discussions in local languages. Local stakeholders, champions identified during district implementation activities, facilitated these radio discussions .

7.1.3. Participating in WASH public awareness events

The project and other partners supported government technical services to celebrate international days: Global Handwashing Day (October 15), World Toilet Day (November 19), World Water Day (March 22) and World Environment Day (June 15). Activities included conferences/debates on selected topics during the day, public handwashing demonstrations by administrative and political authorities, tippy-tap building competitions, skits performed by local theatre groups, video magazine broadcasts on constructing improved latrines on in difficult terrain and synchronized debates on local radio stations.

7.2. Gender equality and women's empowerment

Although gender was not an explicit focus in the project design, implementing NGOs encouraged community decision makers to consider gender balance when selecting community participants for some activities. For example, village WASH committees included over 540 women. These women are influential members and often occupy executive positions: president, vice president and treasurer.

Facilitators and NGO relais organized behavior change and nutrition demonstration sessions with women in VSLAs. Indeed, women's groups were the gateway for behavior change activities. They mobilized local products: millet, groundnuts, monkey bread, coal, stoves and cooking utensils for the nutrition demonstrations.

To sustain project support on accompanying malnourished children to the URENI, the project worked with VSLA groups to support their income generating activities. This in return enabled them to use their solidarity fund to provide transportation and meal support to those accompanying malnourished children to the URENI.

7.3. Partnering with technical services

Because WASH-nutrition issues are multisectoral, the project developed and signed partnership agreements with various regional technical services to optimize field interventions to benefit communities. These partnership contracts supported regional CLTS planning, facilitated WASH consultation framework, disseminated the multisectoral nutrition policy, and celebrated different international days.

Additionally, partnership contracts with reference health centers in Bandiagara and Bankass districts helped to support caretakers of malnourished children with complications at the URENI. VSLA groups will sustain these achievements by strengthening their solidarity funds.

7.4. Environmental conservation

For environmental protection and conservation, WASHplus planted trees, especially fruit trees, for a double purpose: (1) to mitigate the use of wood for latrine construction and (2) to contribute to community nutrition. The seedlings were provided to villagers by local nurseries. Maintenance is assured by communities.

Moringa, a plant with high nutritional value



8. Results

8.1. Results of main activities

8.1.1. Sanitation

CLTS triggering was done in all **180** villages (**30** in 2013 and **150** in 2014).

The monitoring system implemented by the project recorded the construction of **10,230** (including **2,159** rehabilitated) latrines in April 2016. Most were improved traditional latrine models for difficult areas (sandy, rocky and flood-prone), one of the project's innovations.

In terms of sanitation facilities:

- ✓ **71,610** people now have access to an improved sanitation facility since the project intervention;
- ✓ **11,437** latrines were equipped with a hand washing device;
- ✓ **3,933** tippy-taps for hand washing were installed nearby latrines or kitchens in the household.

Results from baseline and end line studies involving 800 (860 in baseline) households in the project intervention area, documented positive changes in three key indicators related to sanitation.

Positive change in three key sanitation related indicators

Indicators - sanitation	Basic Survey Rate	End line study Rate
% of households with children suffering from diarrheal diseases during the 2 weeks preceding the study	35%	27%
% of household who practice open defecation	53%	6%
% of mothers who dispose of the stools of their children properly	22%	84%

8.1.2. Improving access to water

The project partnered with the Regional Water Department (RWD), which participated in several monitoring and verification visits and officially accepted **98** water points in WASHplus intervention areas. Women in the intervention villages found their workload significantly reduced thanks to these rehabilitated/repared water points, as they no longer had to walk long distances to fetch water.

Women of Eguèla Do village no longer have to rise early to fetch water.

« I am treasurer of the VSLA (Moussow ka Jiguiya Ton) of Eguèla Do village in Sara Bara Municipality. Before, women would get up early in the morning (4h30 to 5h00) during May, June, July to get water from another village located 4 km away. This was very tiring for us and for our children. Today we have water near us thanks to the WASHplus project. WASHplus repaired our large diameter well. On behalf of all the women, I thank the NGO YAG – TU, CARE Mali, USAID and the project »



Yinisse Djibo, Woman of Eguèla Do village in Bara Sara municipality

Change in household water use

Indicator-Water	Baseline Study Rate	End line Study Rate
% of households that do not know that drinking water must be treated	18%	4%
% of households using solid chlorine (Aquatabs) to treat household drinking water	5%	8%
% of households using liquid chlorine (bleach) to treat household drinking water	15%	36%
% of households using cans for household water transportation	25%	31%
% of households using jars for household water storage	9%	98%
% of households that practice good storage (covered water container, out of reach of children and pets)	26%	44%

8.1.3. System used to maintain water points

Community training using the decision-making module to set the water price has allowed at least **47** ODF communities to set up a revolving fund to support the repair and maintenance of their water points.

Villagers have developed a financially viable management approach to maintain and sustain pumps.

« The hand pump in our village broke two years ago and was out of use because we needed 30,000 FCFA (US \$50) to repair it. The project facilitator suggested a community approach to repair our water point. We realized that, together, we could fix the pump. So we mobilized 30,000 FCFA to fix it. And after the pump was repaired, we decided to sell water at a price of 5 FCFA per bucket. Today, the average daily sales varies between 750 and 1000 FCFA (US \$ 1.68). With this amount, we hope to be able to cover future expenses that the pump would need.»



Adou Totofoudje, Chairman of the WASH Management Committee in Toussagou, Lessagou municipality

8.1.4. Water quality control

The project worked with the Mopti regional water laboratory to test the water quality at the water points. Physicochemical, bacteriological and arsenic analyses were conducted for the water points. After poor results of the first test, the village communities (19 in Bankass, 16 in Bandiagara and 6 in Mopti districts) mobilized money to treat the large diameter wells and to clean the surroundings. When the test was repeated, the results were positive.

Improving the quantity and quality of water greatly benefits the community.

«The water points rehabilitated by WASHplus are a plus for drinking water supply and the physicochemical and bacteriological control under the expertise of the Mopti regional water laboratory has significantly reduced the beneficiaries' concern.»



Abou BEREDOGO, Director of regional Water laboratory of Mopti

8.1.5. Hygiene promotion

Strengthening the capacity of relais

A total of **444** relais and CHWs including 123 women and 321 men were trained to use visual tools (counseling cards) for community awareness.

A total of **180** sets of counseling cards were distributed to these community agents in 180 villages (one per village). In addition, all facilitators and supervisors received tools and a trainer's guide

Monitoring the tippy-tap promotion approach encouraged communities to build and use **3,933** tippy-taps.

Hygiene behavior change

Indicator-Hygiene	Baseline Rate	End line Rate
% of respondents who practice handwashing after defecation	66%	84%
% of respondents who practice handwashing before eating	60%	83%
% of respondents who practice handwashing before preparing food	22%	53%
% of respondents who practice handwashing before feeding a child	20%	45%
% of respondents who practice handwashing after wiping the buttocks of their child	29%	42%

Water treatment with chlorine products

Since the project field activities started, more than **174,000** Aquatabs were sold in the intervention area by relais/CHW, community health centers, shops or other, including street vendors.

Water treatment behavior change

Indicators-Water Treatment	Baseline Rate	End line Rate
% of households that don't know that drinking water should be treated	18%	4%
% of households that use solid chlorine (Aquataba) for treating household drinking water	5%	8%
% of households that use liquid chlorine (bleach) for treating household drinking water	15%	36%

8.1.6. Preventing malnutrition

Screening and referring malnourished children

The project promoted community level screening and referral of malnourished children, combined with behavior change activities on exclusive breastfeeding and nutritional demonstrations with local products which reduced the number of malnourished children in the target areas.

**Distribution of children screened by district, comparison between January-March 2014
and July-September 2015**

	Referred to URENAM		Referred to URENAS	
	January-March-14	July-September-15	January-March-14	July-September-15
Ba	626	302	103	56
Ba	891	221	121	22
M	1,604	209	223	44
To	3,121	732	447	122

Exclusive breastfeeding promotion

The baseline study reported that 26% of children under six months were exclusively breastfed in the study areas. The result of the final study shows that this rate is **63%** after the project's interventions on exclusive breastfeeding.

Nutritional demonstration



Nutrition Demonstration

Number of nutrition demonstration sessions : **1670**

Four months after she created her vegetable garden, Hawa realized its economic and health benefits.

«I am the president of Oubayara's women group, in Dimbal municipality. To prevent malnutrition in my household, I created a garden with several types of plants: papaya, eggplant, sweet potatoes, tomatoes and sorrel. I started this initiative in June 2015 to reduce expenses and increase food diversity in my family, thanks to meetings and demonstrations organized by WASHplus in which I always participated. I also received advice from WASHplus during nutrition demonstrations. I would suggest to other women to do what I did.»



**Hawa Tessougue, Oubayara village,
Dimbal municipality**

The baseline study reported that 6% of children aged 6 to 23 months were receiving a minimum acceptable diet (MAD) in the study areas. The result of the end line study shows that this rate is at **33%** after nutrition demonstration sessions.

8.2. Results of cross-cutting activities

8.2.1. Behavior change and maintenance

Communities noted significant positive changes: increased village cleanliness improved children's health, especially reducing diarrhea and malnutrition. Some mentioned behavior changes in all areas including: sanitation, water treatment, hand washing, exclusive breastfeeding, and diversifying complementary foods for young children. In ODF certified villages, residents cooperated greatly for weekly sanitation activities and shared a common pride of having improved their own welfare.

8.2.2. Gender equality and women's empowerment

Women's participation in project activities helped achieve significant results. Women's groups provided most sanitation in the villages and the CHC. They organized village cleanings at least weekly. During post-ODF implementation, women's groups in all villages received a sanitation kit: wheelbarrow, shovel, rake, broom, gloves, and booties. And sometimes, they also cleaned places outside their village.



Sanitation Kits

A facilitator of Lowel Géou municipality said that women who came to the community health center of Kargué, the municipal capital, noticed that it was not clean. One day women from Noukoumagna village went out to clean the CHC. Since then, Kargué women clean their community health center as part of their agenda.



Women insist on treating drinking water before stocking it in the jar

About **47** ODF-certified villages have implemented water pricing decisions for sustainably managing water infrastructure. In villages, women are usually responsible for collecting and transporting water. Implementing water pricing succeeded because women are willing to pay for water to ensure their water infrastructure is sustainably managed. They also regularly clean the surroundings of water points. Women are also responsible for purchasing Aquatabs to treat drinking water.

8.2.3. Partnership with technical services

The well-designed, multi-sectoral partnership enabled the project to achieve widespread results. The technical collaboration between the different government services has drawn much attention, especially during the certification ceremonies, as all services participated. This participation bodes well for sustaining the project's achievements. The difficulty of this integrated partnership was mobilizing all services at the same time, given their own timelines, which, for example, delayed several ODF certification ceremonies.





8.2.4. Environment

More than **7,000** trees were planted to compensate for the wood used to construct latrines. Most of these trees are fruit trees, that also contribute to diversifying children's food. About **65%** of the trees planted were still alive at the end of the project.

8.2.5. Generating an entrepreneurial spirit

A number of income-generating activities developed in the villages. These included mobile vendors selling Aquatabs, especially in Bankass; sanitation shops opening in villages, manufacturing latrine covers that are even sold to other villages, and using masons trained by the project outside of their home villages .

9. Lessons learned

-  **Integration of nutrition with WASH is synergistic.** Communities were able to directly perceive the link between improvements in their village sanitation and reduced malnutrition rates. This visible link has strengthened the communities' motivation to intensify their efforts in both areas.
-  While institutional leadership is required, **the free and voluntary adherence of communities and other stakeholders** remains essential. In fact, without a clear institutional framework that is well-understood by all stakeholders and led by public officials, efforts will be dispersed and diluted, and the impacts will be very limited. For greater effectiveness, this framework should define the roles and the respective commitments and contributions expected from each actor.
-  **The active participation of women in the process** adds great value given their organizational capacities and especially their dynamism in implementing concrete actions in both WASH and nutrition.
-  **Capacity building activities** are justified to increase the chances of success. With the necessary capacity, all stakeholders involved with the project and their community agents became increasingly capable of mobilizing the community as well as potential local resources to carry out all the demonstration activities such as using water treatment products, handwashing with soap, nutrition demonstrations. Identifying and working with champions at the community level helped the project achieve its objectives.

- ✍ **Participation of local actors (skilled masons and technical advisers) in designing traditional latrines adapted to the environment** guaranteed success in designing sustainable latrine models that are affordable and can be easily accepted by the communities.
- ✍ **Facilitating a participatory decision making process with communities to determine water pricing** is a good strategy to establish a sustainable village system to finance water point rehabilitation and maintenance costs.
- ✍ **Involving local champions in animating radio talk shows** is a very good strategy for fostering loyal listenership from the audience/communities. This facilitates awareness and creates healthy competition among communities implementing WASH related best practices.
- ✍ **Improving traditional food recipes with local nutritional products** facilitates community acceptance and adoption of the practice.
- ✍ **Implementing a system of screening and referral of malnourished children at the community level** is effective in preventing malnutrition. People realize that they can treat and prevent this disease themselves.
- ✍ **Promoting a healthy emulation among communities through organizing competitions** is effective in changing behavior. It encourages communities to maintain momentum in moving towards the desired changes.

10. Challenges and perspectives

The biggest challenge is to sustain the project's achievements within the communities and also among national and local stakeholders. This is true for all interventions:

- Regular cleaning and sanitation of the villages in general and especially the continued use of latrines and maintenance of ODF status.
- Equitably providing water services, especially regarding the need to pay operating expenses and maintenance costs of the infrastructures installed.
- Making equipment and materials specific to WASH available.
- Involving the water laboratory in testing and monitoring regularly the quality of water points.
- Sustaining the distribution system for water treatment products.
- Broadcasting radio programs to reinforce behavior change.

Another major challenge is to sustain the achievements of the activities conducted by community agents which will no longer be supported by local NGOs or by WASHplus. These activities include:

- Maintaining good handwashing practices with soap at critical times and the use of tippy-taps

- Intensive screening of children for malnutrition during the month of September in each village
- Bicycle maintenance that allows community agents to do this screening work
- Covering the costs for caregivers to accompany malnourished children to nutrition rehabilitation units. The partners' cooperation framework could include this aspect of sustainability
- Continuing nutrition demonstrations and counselling using the project's illustrated cards that highlight and reinforce good practices.

11. Looking forward

The project envisions multisectoral approaches to continue and/or scale up these activities in the future. Some have already started and others are still being planned. This document, along with other end of project activities, aimed to capitalize on the achievements and capture important processes of the project by highlighting and communicating them to current stakeholders and other potential partners.

At the policy level

- ☞ The importance of using new construction techniques to improve traditional latrines, such as those developed by the WASHplus project, was integrated into the national CLTS guide as recommendations. Following this integration, some stakeholders in the region now use the same strategy to implement CLTS in difficult areas. The project also contributed to post-ODF policies, to ensure sustained engagement of ODF-certified villages.
- ☞ More advocacy work is needed to target relevant national government sectors and to convince them of the importance and positive impact of integrating WASH into nutrition programs. The goal is to show that WASH benefits nutrition programs and likewise, where possible, introduce some nutrition elements into WASH programs.

At the planning Level

In the Mopti region and in other parts of the country, projects managed by CARE will benefit from WASHplus's achievements. Further, the project has encouraged the technical divisions of government, both at national and regional level, donors, national and international NGOs to include some WASH and nutrition activities and approaches in their programming and interventions in the region and in other parts of the country. The following approaches should be considered when designing post-ODF activities:

- ☞ The use of the decision-making module to determine the price or the amount of contributions for water is an effective alternative to covering operating and maintenance costs of water infrastructure. Using this module when designing post-ODF activities will increase the communities' awareness about the need for sustainable management of the water point. This approach may apply in many decision-making areas at the community level.

- ☞ Planting fruit trees after constructing traditional latrines with wood, to safeguard the environment while improving food variety for communities, is a practice that has already been adopted by other stakeholders.

To encourage sustaining ODF status, the regional government could institute annual competitions to select the cleanest village in each district. The ceremonies in the winning villages could coincide with the World Toilet Day.

At the implementation level

Resources – community agents/CHWs/elected officials/women's associations

Project approaches and activities are expected to continue in WASHplus project areas. Key resource persons have already been trained: they know what to do and how and they have the tools necessary to do the work. They can continue screening and referring malnourished children and offering nutrition demonstrations, sensitization meetings, weekly cleanings etc. Even at a smaller scale, this could reinforce positive attitudes and behaviors acquired, especially in ODF-certified villages

- ☞ Future project could sign agreements with local support groups to encourage continuing some activities. WASHplus signed agreements with women's associations in several villages to ensure a sustainable management system for providing expenses (for food and transportation) to caregivers accompanying malnourished children at the URENI.
- ☞ The project has also noted key people in villages close to the intervention areas who witnessed the changes in the intervention villages and took the initiative to encourage change actions in their own villages for the welfare of the inhabitants.

Entrepreneurs

Income-generating activities such as selling Aquatabs, opening sanitation products shops, manufacturing of latrine covers, and employing masons outside their village were inspired by WASHplus. These income-generating activities should be promoted in other villages to meet the people's needs and also create jobs and profits thus favoring the continuation of key project activities.

Communities

Many success stories illustrate the perceived benefits from positive changes within households and villages. The communities are proud of themselves and their villages. They are now able to control their own health and wellbeing. These experiences should serve as strong influencers to reinforce their continued good practices at the individual level and encourage others in their own and other communities to do the same.

12. Documentation

Tools

- 📁 Trainers guidebook and WASH-Nutrition counseling cards
- 📁 Images from documentary films
- 📁 Radio show contents
- 📁 Guidebook for video screening sessions

Strategic documents

- 📁 The Aquatabs and chlorine promotion strategy
- 📁 Tripartite partnership protocol
- 📁 Innovative sanitation strategies implemented by WASHplus in Mali

Reports

- 📁 Reports of community agents' training on WASH-nutrition tools
- 📁 Reports of facilitators' training on WASH-nutrition tools
- 📁 Reports of community agents' training on nutritional demonstrations
- 📁 Quarterly and annual activities report
- 📁 Report of baseline study on water, sanitation, hygiene and nutrition in Mopti, Bandiagara and Bankass districts in the Mopti region

