

Guinea Bissau

Water Sanitation and Hygiene

THEMATIC REPORT

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ABBREVIATIONS AND ACRONYMS

CPD	Country Programme Document
DGRH	General Directorate of Hydric Resources
EVD	Ebola virus disease
CLTS	Community Led Total Sanitation
CATS	Community Approaches to Sanitation
GAS	Grupo Agua e Saneamento (Coordination Group for Water and Sanitation)
MOH	Ministry of Health
MDG	Millennium Development Goal
ODF	Open Defecation Free
INASA	Instituto Nacional de Saúde
WASH	Water, Sanitation and Hygiene
MICS	Multiple Indicator Cross sectoral Survey
WWD	World Water Day
GHD	Global HandWASHing Day
MINSAP	Ministerio de Saude Publica
MoE	Ministerio de Educacao
NGO	Non-Governmental Organisation

EXECUTIVE SUMMARY

2016's WASH interventions have featured integrated approach with health and education programs to ensure maximizing impact for children. During the year, over 5,000 households previously declared Open Defecation Free were revisited and assessed for water and sanitation practices and 700 villages were re-verified for open defecation free status (ODF) through UNICEF funded programs. The new, child friendly design for school toilets was developed in consultation with children, validated and piloted in 11 schools. An extensive survey of health care infrastructure including WASH, electricity, staffing and services was carried out in all 136 health institutions. Utilizing well defined criteria 45 centers were selected for rehabilitation, which is currently under way.

During the year, over 4,000 water points were visited, assessed and data were recorded into a smartphone based inventory. The inventory showed that 50% of all hand pumps were not functional at the time of assessment.

On an institutional level, the Government is responsible for policy development and mobilization of resources for the WASH sector. Although UNICEF is supporting the Government in its move to take up its role as regulator and creator of an enabling environment for a functioning water sector, the political situation in the country has not been conducive to the successful handling of these roles. During the first half of 2016 the position of the Minister remained vacant and two different Ministers were appointed for the second half of the year hampering programme continuity and institutional memory. Due to the institutional weakness, limited human and financial resources, Guinea Bissau remains a challenging environment to operate in.

Furthermore, the Government has a limited presence outside of the capital, and only 4 out of 8 regions have a regional representation for the Water Department. This lack of presence in the field makes the coordination of activities very difficult, and there is an array of approaches being taken by NGOs that are unaware of the existing coordination, mainly conducted through the Water and Sanitation Coordination Group (GAS: Grupo Agua e Saneamento) mechanism: the coordinating body for water and sanitation. During 2016 regional GAS meetings were introduced at the level of 4 administrative regions. Extending coordination to the Regions will facilitate exchange and feedback that will provide critical information to the central level.

The following key results were achieved in 2016: (i) 4,147 water points were visited of which 703 were boreholes equipped with hand pumps. Of these 49% were functional, 14% with difficulty and 36% not working at all, (ii) A manual drilling mapping has been finalized to assess the viability of using low cost manual drilling techniques and revealed that over half the country area could be suitable for low cost boreholes, (iii) CLTS re-verification was conducted in 700 villages indicating that 80% of over 5000 visited households are still defecating in their own toilet since being declared ODF, (iv) New latrine designs has been made for child-friendly schools utilizing composting toilets and innovative water provision to the handwashing stations and new standards for WASH and Hygiene education in schools have been developed with a special focus on menstrual hygiene management, (v) a survey of all the country's 138 health centers was conducted showing wide spread disparities in regards to availability of energy and water and rehabilitation of 56 health center is under way.

Situation analysis

With a 34% increase of the population that has gained access to improved drinking water since 2000, 75% of the country's total population now has access to an improved drinking water source. Guinea Bissau has met its specific water MDG target (JMP 2014 & MICS 2015); however, despite the significant progress made in recent years, this aggregated MDG figure doesn't reflect the regional disparities within the country, and 38,6 % of the population in rural areas still drink from unimproved water sources (Figure 1 based on MICS 2014).

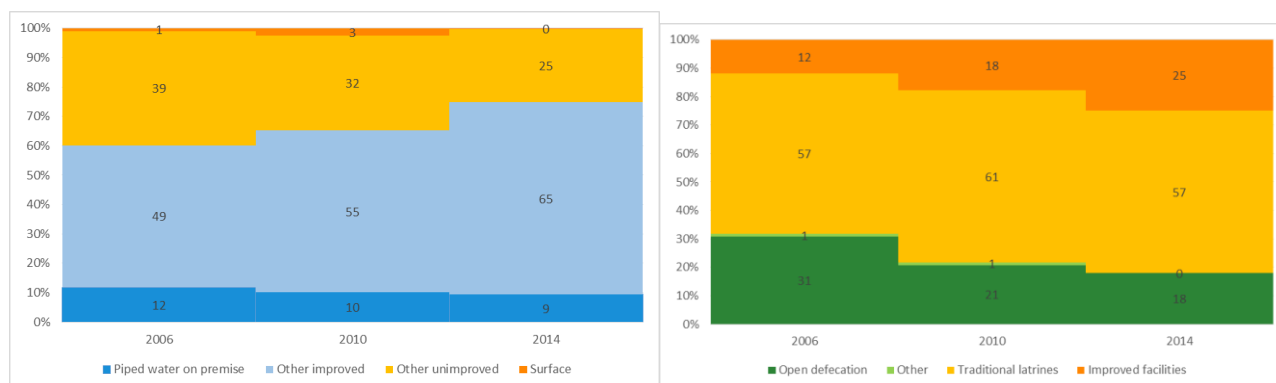


Figure 1 Water source and toilet type (%), MICS 2014

In sanitation, only an additional 10% of the population has gained access to improved sanitation since 2000 (JMP, 2014). These low gains mean Guinea Bissau has not met its MDG sanitation target. There are, however, encouraging prospects with notable progress made over the last few years to accelerate the elimination of Open Defecation, from 21.1% down to 17.7% of the national population between the MICS-4 (2010) and MICS-5 (2014). In the first half of 2015, over 1000 (cumulative) communities have been declared Open Defecation Free, through Community Led Approaches to total sanitation, notably CLTS interventions. Since open defecation is the form of sanitation that most adversely affects public health, this is welcome news. Considerable differences continue to persist across regions (Figure 2)

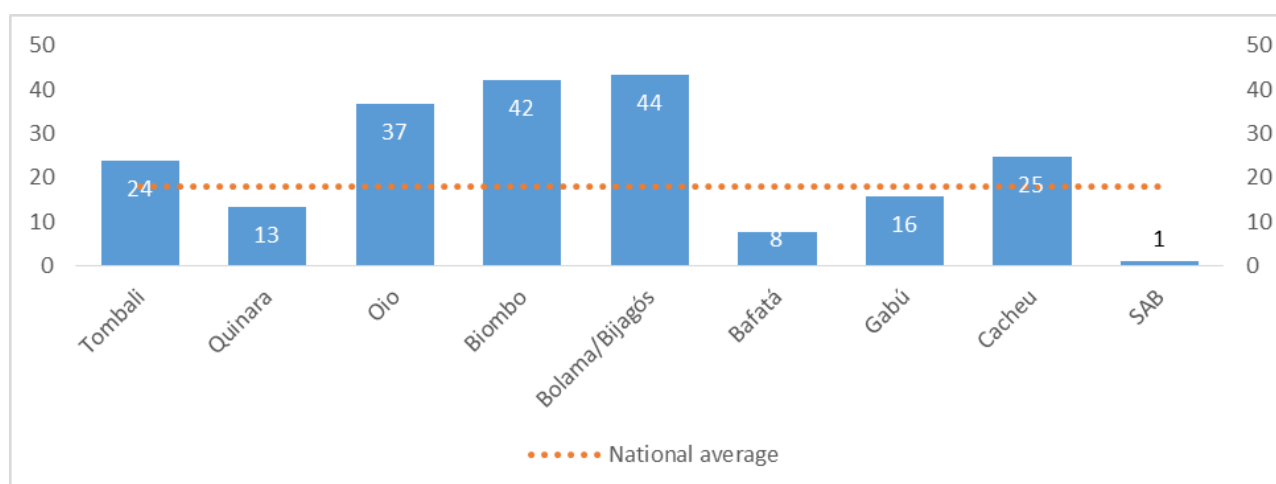


Figure 2 Open defecation per region (%), MICS 2014

In 2016 UNICEF carried out assessments showcasing the frailty of services and systems both in health and water sector. An assessment of 136 health centres showed that none of the 66 type C (community health centres) had running water within the facility and 58% had no electricity. A verification of data from 2009 borehole inventory shows that data for none of 5000 registered water points have been updated for functionality, nor was any new water point entered since. During the year, the ministry and UNICEF have carried out a large scale waterpoint inventory, utilizing cloud based database and smartphones. The inventory shows that 50% of the hand pumps are out of function. In the region of Biombo 75% (!) of the installed pumps were out of function.

Recent household survey conducted in 700 already certified ODF villages (2011 -2015) shows that nearly 90% of the community members continue to rely on an unprotected water source for their water, much higher than 49% as expected based on MICS 2014.

A geospatial cross analysis performed by UNICEF in 2016, shows that 35% of the Guinea-Bissau villages have never had access to a safe water. There are multiple reasons for this, such as the small size of the villages (under threshold of 150 inhabitants), and/or difficult access for traditional, heavy borehole rigs. There is a large equity gap that leaves people from small villages underserved in terms of water but also health and education services.

Enabling environment and donor partners' support

UNICEF effectively lobbied the international community for support to the Government of Guinea Bissau towards the reduction of maternal and under-five mortality. Additionally, as a result of UNICEF's advocacy, Mother and Child Health has been included in the country's national strategy, Vision 2025, as a public health priority and is positioned highly on the Government agenda.

The current enabling environment was bolstered further with the re-establishment of relative stability in Guinea-Bissau in 2014-2015 and the international community's increased confidence, as evidenced by the return and re-entry of donors, such as USAID, although engaging mainly into alleviating potential Ebola impact.

However, with the resurgence of a political crisis and continued political gridlock, occasioned by severe political divisions between the main party and the government, donor's confidence has been eroded and many are not anymore considering investing resources to support the country's development and reforms. Therefore the partnership landscape remains relatively weak. In addition, most local non-governmental organizations lack core and independent funding and they are not able to perform the technical functions linked to their mandate.

Only 9% of the Government's budget has been allocated to the Ministry of Health and Ministry of Natural Resources, money which almost exclusively supports staff salaries. The component of programming and maintenance falls on the international donor community. It is a worrying development and a great threat to sustainability of interventions.

Achieving the SDGs will require innovation, increased multi-sectoral linkages and tailored interventions to accelerate a reduction in maternal and child mortality and increase to water and sanitation. Advocacy efforts will need to be increased, particularly in regard to budget allocation for Ministry of Health and Ministry of Natural Resources, in order to promote sustainable

Government owned solutions. Finally, the formal adoption, endorsement and implementation of key legislation will need to be pursued to ensure that all populations have equitable access to health, nutrition, and WASH services.

UNICEF Strategic Approach for Water, Sanitation and Hygiene

UNICEF Guinea-Bissau continues to play an active role in supporting the Directorate of Water Resources (DGRH) and the Ministry of Health (MOH), as well as MOH line agencies (the Institute of Public Health (INASA) and the National Nutrition Service (NNS)) in their efforts to reduce infant and child mortality through a multi-pronged approach built on the synergies of nutrition, health, and WASH.

The Water, Sanitation and Hygiene (WASH) programme focused its interventions on increasing access to sustainable water and sanitation, including the adoption of safe hygiene practices, in the most vulnerable regions of the country. Target regions were identified following a careful analysis of available WASH sector data, ensuring that water services were provided equitably and to the most vulnerable populations. The WASH program based its planning on the updated databases of structure functionality, which was maintained and updated through the use of modern monitoring tools such as smartphones.

The key elements of the WASH programme component are described below:

- **Access to improved and sustainable safe water and sanitation facilities, especially for vulnerable and first time served populations:** Alternative and low-cost construction methods for provision of safe water to targeted communities was prioritized, notably manual drilling and rainwater harvesting, aiming to ensure provision for populations previously unserved and not considered for traditional borehole programs.

Demand triggered by Community Led Total Sanitation (CLTS) for sanitation will continue to be the key focus of sanitation and hygiene interventions. At community level, sustainability of sanitation structures will be ensured through sanitation marketing of SanPlats and other options. The mapping of sanitation interventions ensures the foundation to develop a strategy for Open Defecation Free (ODF) sectors, regions and eventually the whole of Guinea Bissau.

- **Improved water and sanitation facilities in schools and health centers:** Child friendly and gender sensitive WASH facilities were constructed or rehabilitated in target schools and communities, particularly where CLTS was promoted. Special consideration was given to access to water and sanitation facilities by children with special needs. In order to ensure sustainability of interventions at school level, the programme supported existing school management committees and the creation of specific child to child WASH groups. The programme also continues its interventions in improving water and sanitation facilities in rural health centers in order to ensure safe medical practices and promote hygiene.
- **National capacity and, accountability to implement national WASH policies and Disaster Risk Reduction (DRR):** UNICEF continues to play a key role in policy advocacy and sector coordination through leadership of GAS (*Grupo Agua e Saneamento*- Water and Sanitation Group). Support is given also to the government for the formulation of national water and sanitation policies, as well as in its preparation and implementation of a regulatory framework, including action plans and standards. Strong advocacy efforts continue in order to keep

promoting safe hygiene practices through partnerships, advocacy and social mobilization with CSOs and media. Strong linkages have been created with Government and NGO partners to capitalize on key events, like the Global HandWASHing Day, World Toilet Day and World Water Day. Support will be provided to national institutions for emergency preparedness, particularly against infectious diseases, such as EVD and Cholera, including the strengthening of the national civil protection system.

- **Partnerships and inter sectoral linkages:** The WASH programme continued to work closely with other programmes, notably education, health, nutrition and communication.

The WASH programme is aligned with the Human Development pillar of UNDAF. Currently, UNICEF is the only UN organization active in the WASH working group. Partnerships will be sustained with the EU, UNICEF National Committees, UN agencies and NGOs at national, regional and community level.

RESULTS IN THE OUTCOME AREA

UNICEF framework of engagement outlines two main output targets aimed at increasing the percentage of population practicing safe hygiene practices, i.e. hand washing with soap, household level drinking water treatment (and conservation) and safe excreta disposal. To facilitate achievement of those targets, UNICEF supports the Government to develop evidence based high impact policies as well as scaling up appropriate services.

Improving access to clean water across the country

During 2016 the WASH section together with government engaged in a thorough assessment and reorganization of available data regarding access to water and sanitation. With clear gaps identified on accurate, georeferenced data it was decided to move into smartphone based mapping of water points. 6 NGOs in all parts of the country were engaged to assess the status of all water points, assign serial number and mark them. During 2016, 4147 water points were visited of which 703 were boreholes equipped with hand pumps. Of these 49% were functional, 14% with difficulty and 36% not working at all. The issue of access to water is thus not a question of unavailability of water points, but the nonfunctioning of the same. UNICEF together with the government has procured spare parts to be used as seed stock in engaging private retailers in 3 regions to sell pump spares. The sole importer of the two approved pumps has been obliged by DGRH with direct UNICEF support to provide fixed price list for the most commonly used spares.

A manual drilling mapping has been finalized to assess the viability of using low cost manual drilling techniques as an additional solution to small villages with less than 150 households (35% of GB villages) normally not considered for a traditional borehole. The manual drilling study allowed for the reorganization and revitalization of borehole log collection and interpretation, seeing very active engagement from ministry staff.

According to the study over half the country area could be suitable for low cost boreholes. It also showed that several small companies formed during the eighties are still operating and producing good quality boreholes. The study also clearly identified the lack of georeferenced borehole logs as well as poorly filled out borehole logs. The ministry lost a large part of their logs in the civil war

1998 and is struggling with digitalization and storage of remaining borehole logs, an essential component for developing geological and hydrological maps and assessing water level changes and water extraction possibilities.

Communication and advocacy

During the year WASH Sector celebrated three events: Global Water Day was celebrated in a Quinhamel, Global Handwashing day was celebrated in Bissau through a nationwide music competition for best handwashing song and World toilet day was celebrated in Cuntanga with the final ceremony of handing over open defecation free certificates to proud village chiefs and a production of a film depicting the transition to open defecation free status.

The advocacy to steer the communities towards utilization of safe water point will be prioritized in further programming, by using H2S kits (fecal coliform indicative test). It is especially important with the introduction of CLTS which to some degree is bringing the fecal coliforms closer to shallow water tables and closer to wells.

Access to improved sanitation

CLTS reverification was conducted in 700 villages during 2016 indicating that 80% of over 5000 visited households are still defecating in their own toilet since being declared ODF. It is significantly higher than the national average in rural settings, which according to JMP 2015 is 67%. While MICS 2014 reported that 76% of the rural population does not have dedicated location for hand washing in the household, the 2016 re-verification found that 48% of the intervention villages did, considerably higher than the national average.

Advancing WASH in Institutions

New latrine designs has been made for 11 child-friendly school utilizing composting toilets and innovative water provision to the handwashing stations.

Aligning with the ongoing Education Section engagement to develop norms and standards of quality education, the WASH Section introduced new standards for WASH and Hygiene education in schools. Following the mapping of available resources and potential partnerships, the ‘Three Star Approach’ was adapted to the local context. Three Star Approach is a rewarding system aimed at motivating and inspiring schools to improve the hygiene education and facilities in their schools as well as enabling the Ministry of Education to rank and measure school’s performance according to the standardized tool.

To facilitate hygiene education in schools, UNICEF initiated a thorough revamp of hygiene education package for schools with specific focus on menstrual hygiene. Once finalized the package will contain standardized set of tools and education materials for hygiene clubs aimed at both teachers and students.

A survey of all the country’s 138 health centers was conducted showing wide spread disparities in regards to availability of energy and water. Out of the 138 visited health centers 61 were of type C (community clinic of the lowest category). None of them produce water when the tap is open and

in only 7 centers of type C, the flick of a light switch results in light. UNICEF is currently engaged in rehabilitating 56 centers of type C with water and electricity during 2016 and 17.

Improving the national policy framework and coordination mechanisms

The fragile political situation in Guinea Bissau remains challenging. In 2016 no Minister was appointed in the first half of the year and two different Ministers were appointed in the second half. This political volatility has been posing challenges for continuity and strategic planning. In addition, there are not more than few international NGO partners engaged in WASH and no other UN actor is involved. Despite this, many new opportunities are appearing as the civil servants of the directorate of water begin to show interest in progressive new thinking, such as using smartphones for monitoring and introducing new high impact low cost methodology like manual drilling. Also there is a renewed interest to finalize the Water and Sanitation policies supported by UNICEF and in draft since 2015.

Sector coordination has been used as the main strategy to ensure strategic coordination between the government and partners towards the sector coordination body called Grupo de Água Saneamento- GAS (Water and Sanitation Group). The GAS held 10 monthly meetings that were hosted and led by the government with UNICEF acting as secretariat. The meetings main goals were to reinforce knowledge and information sharing and to ensure strategy coherence in services delivery.

With the aim to foster coordination at the sub-national level UNICEF advocated for regional coordination meetings during 2016. Meetings were started in 4 regions following the national modality of government lead and the secretariat role done by a strong, local, WASH NGO partner. This local sub-national coordination meetings has extended the coordination to rural associations and will allow communities and local authorities to benefit from knowledge experience from the national GAS meetings and partners.

The political turmoil continue to pose challenges to the sector reform of water and sanitation.

No progress was made this year on the policies developed by DGRH together with SIWI and direct support of UNICEF during 2015. The ministry has identified this as a key priority for 2017.

Results assessment framework:

OUTCOME INDICATORS	BASELINE (% or #)	TARGET (% or #)	PROGRESS (% or #)
Percentage of households accessing safe drinking water.	79 % 2015 (MICS 2014)	83% 2017	No data. Will be available MICS 2017
2. Percentage of the population practicing open defecation.	18% 2015 (MICS 2014)	10% 2017	No data. Will be available MICS 2017
3. Percentage of households adopting hand-washing with soap.	19.7% 2015 (MICS 2014)	23% 2017	No data. Will be available MICS 2017
Output 1	Improved facilities, services and capacities provided for the children and families leading to sustained and equitable use of safe drinking water, adoption of adequate sanitation and good hygiene practice focusing on areas with lowest coverage.		
Output 1 INDICATORS	BASELINE 2015 (% or #)	TARGET 2016 (% or #)	PROGRESS 2016 (% or #)

1.1 # of updated database entries in the DGRH maintained functional, dynamic and accessible database of status of water points and CLTS status in Guinea Bissau updated by all wash partners	0	2500	5000
1.2 # of communities declared ODF	1094	1390	1180
1.3# of villages that have auto upgraded their sanitation facility after more than 1 year being declared ODF	0	200	0
1.4 # of schools equipped with child friendly sanitation	0	11	2
1.5 Number of health centers with upgraded wash	0	10	50
Output 2	Increased national capacity and strengthened political commitment, accountability to implement national wash policies.		
Output 2 INDICATORS	BASELINE 2015 (% or #)	TARGET 2016 (% or #)	PROGRESS 2016 (% or #)
2.1 Water and sanitation policy validated.	no	yes	no. Validation scheduled for April 2017
2.2 Monthly meetings of the WASH cluster (GAS) basis chaired by DGRH.	10	10	10

Table 1: Planned budget by outcome area

Outcome Area 3: WASH Guinea Bissau Planned and Funded for the Country Programme 2016 (in US Dollar)		
Intermediate Results	Funding Type¹	Planned Budget²
03-06 WASH General	RR	50,000
	ORR	688,000
Undefined	RR	130,000
	ORR	1,439,840
Total Budget		2,307,840

¹ RR: Regular Resources, ORR: Other Resources - Regular (*add ORE: Other Resources - Emergency, if applicable*)

² Planned budget for ORR (*and ORE, if applicable*) does not include estimated recovery cost.

³ ORR (*and ORE, if applicable*) funded amount exclude cost recovery (only programmable amounts).

Table 2: Country level thematic contributions to outcome area received in 2016

Outcome Area 3: WASH Thematic Contributions Received for Outcome Area 6 by UNICEF Guinea Bissau in 2015-2016 (in US Dollars)				
Year	Donors	Grant Number*	Contribution Amount	Programmable Amount
2015	Spanish Committee for UNICEF		10,893	10,893
2016			0	0
	Total		10,893	10,893

Table 3: Expenditure in the outcome area

Outcome Area 3: WASH Guinea Bissau 2016 Expenditures by Key-Results Areas (in US Dollars)				
Organizational Targets	Expenditure Amount			
	Other Resources - Emergency	Other Resources - Regular	Regular Resources	All Programme Accounts
03-01 Water supply	11,068	207,953	53,163	272,184
03-02 Sanitation	76	72.733	9.985	82,793
03-03 Hygiene		-116	3.676	3,557
03-04 WASH in Schools and ECD centres	25.753	202.549	13.764	242,066
03-05 WASH and emergencies	57.500	78.435	11.427	142,271
03-06 WASH # General	147.189	406.740	170.727	724,656
Total	241,586	968,200	262,743	1,472,529

Table 4: Thematic expenses by programme area

Outcome Area 3: WASH Guinea Bissau 2016 Expenditures by Key-Results Areas (in US Dollars)			
Organizational Targets	Expenditure Amount		
	Other Resources - Emergency	Other Resources - Regular	All Thematic
03-01 Water supply	127	184,140	184,267
03-02 Sanitation		77,697	77,697
03-04 WASH in Schools and ECD centres		153,514	153,314
03-05 WASH and emergencies	16,241	24,155	40,396
03-06 WASH # General	146,143	314,558	460,701
Total	162,511	754,065	916,576

Table 5: Expenses by Specific intervention codes

Specific Intervention Code	Expense (USD)
03-01-01 Rural water supply	74,825
03-01-02 Peri-urban and urban water supply	28,216
03-01-04 Water Supply Sustainability	148,024
03-02-01 Open defecation elimination and improved sanitation: rural	18,801
03-02-03 Sanitation marketing	61,642
03-03-02 Other hygiene promotion	1,931
03-04-01 WASH in Schools (general)	116,007
03-04-02 WASH in Schools hygiene promotion	89,434
03-04-03 Menstrual hygiene management in schools	266
03-05-02 WASH emergency preparedness	26,603
03-05-04 WASH emergency response # Sanitation	103,190
03-06-01 WASH sector coordination (non-humanitarian)	4,953
03-06-02 WASH social policy (social safety nets)	628
03-06-03 WASH # General	537,877
03-06-07 WASH in health facilities	64,078
03-06-08 WASH monitoring and bottleneck analysis	102
08-01-02 Annual review	360
08-01-06 Planning # General	11,672
08-02-03 MICS # General	5,291
08-03-01 Cross-sectoral Communication for Development	91,426
08-03-03 C4D # training and curriculum development	609
08-04-01 Parenting programmes / parenting education and support	351
08-09-06 Other # non-classifiable cross-sectoral activities	62,825
08-09-11 Emergency preparedness and response (General)	208
10-07-03 ICT capacity in RO	196
10-07-11 Country office leadership and direction	5
10-07-12 Management and Operations support at CO	
2072 School sanitation, water supply and hygiene education	-3
6902 Operating costs to support multiple focus areas of the MTSP	34,156
7911 Representative and governance	1,145
7921 Operations # financial and administration	-12,286
Grand Total	1,472,529

FUTURE WORKPLAN

Output 1	Improved facilities, services and capacities provided for the children and families leading to sustained and equitable use of safe drinking water, adoption of adequate sanitation and good hygiene practice focusing on areas with lowest coverage.
1.	To continue to work towards declaring the first ever ODF region (all communities in respective regions declared ODF)
2.	Scale up access to safe water in never served communities through promoting low cost-high impact interventions: manual drilling, rain water harvesting and household water treatment.
3.	Continue the development and roll out of WASH in schools program with an emphasis on menstrual hygiene management.
4.	Improved design of child friendly toilets through internship for architecture students
5.	Continued development of dynamic cloud based monitoring of water and sanitation infrastructure, services and projects implementation
6.	Further forwarding and institutionalizing and licensing of pump mechanics to promote pump repairs and ensure continued supply of safe water
7.	Continue to support business based approach to ensure sustainability of interventions: pump spares, sanitation marketing, household water filters, public latrine functionality, cost recovery for maintenance of WASH structures etc.
8.	Continue rehabilitation of WASH facilities in health centers and sustain data collection of center's functionality.
9.	
Output 2	Increased national capacity and strengthened political commitment, accountability to implement national wash policies. .
1.	Continue advocacy for regional coordination mechanisms for WASH and increased government presence in the regions, along with supporting national WASH coordination.
2.	Validation of Water and Sanitation Policies
3.	Continue to strengthen data management by the Ministry to ensure a solid evidence base for future programming
4.	Strengthen the Ministry's hydrogeological mapping and data retention capacity.

Expression of Thanks

UNICEF Guinea Bissau deeply appreciates and thanks Spanish Natcom for their generous contribution in support of WASH in the country. UNICEF also thanks colleagues from all the line ministries and departments for their cooperation and support at the central, regional and community level as well as the civil society partners and organizations. UNICEF values the participation of the local communities and support for the education of children in the country

ANNEX 1 DONOR FEEDBACK FORM

Name of Report: **WASH-Global Thematic Report**

Reference number: **SC/2015/1499030061 – (Spanish Committee for UNICEF)**

Completed by: Name _____

Designation _____

Organization: _____

Date completed: _____

Email: _____

Please return to UNICEF (email): bvdsilva@UNICEF.org

SCORING: 5 indicates “highest level of satisfaction” while 0 indicates “complete dissatisfaction”

1. To what extent did the narrative content of the report conform to your reporting expectations?

5	4	3	2	1	0

2. To what extent did the funds utilization part of the report conform to your reporting expectations?

5	4	3	2	1	0

3. To what extent does the report meet your expectations with regards to the analysis provided, including identification of difficulties and shortcomings and remedies to these

4. To what extent does the report meet your expectations with regards to reporting on results?

5 Please provide us with your suggestions on how this report could be improved to meet your expectations.

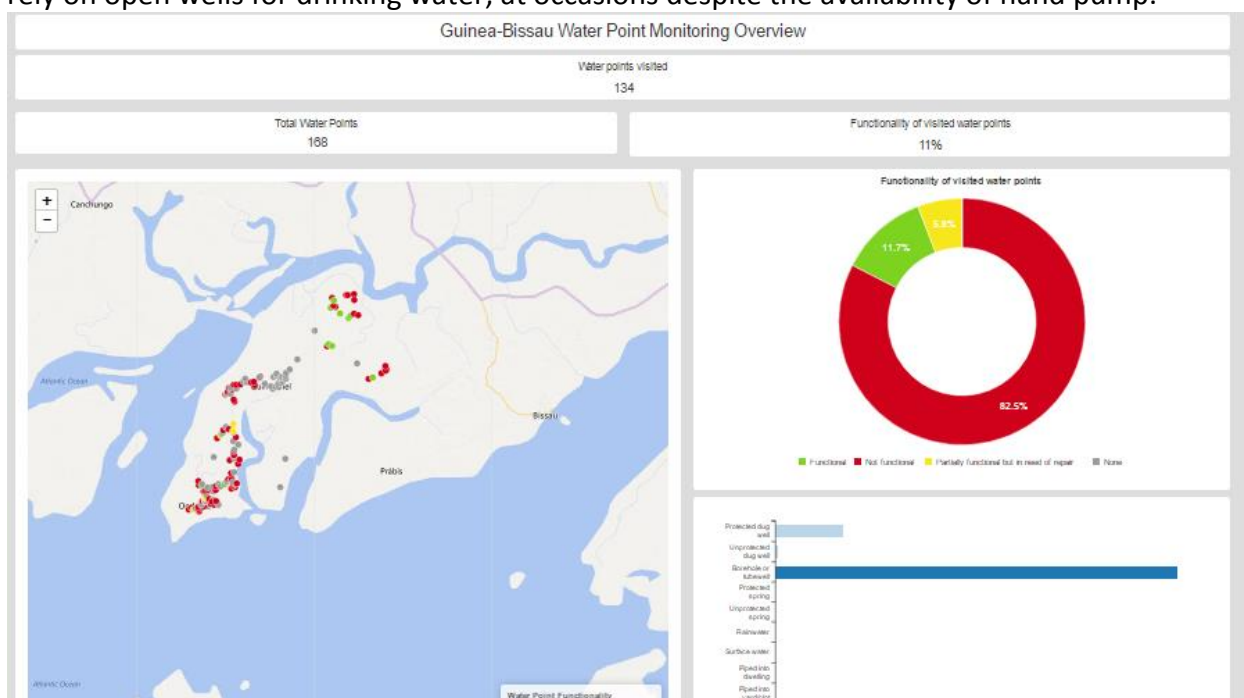
Please return this form to UNICEF Guinea Bissau (bvdsilva@UNICEF.org)

ANNEX 2 CASE STUDY

Case Study Title: Introduction of cloud based monitoring system of water point's availability/functionality and CLTS programming and re-verification of ODF status using smartphones

Top Level Results:

In the still ongoing assessment, 4147 water points were visited so far, assessed for functionality. Out of those 767 WP were equipped with hand pumps, out of which only 49% were functioning. In certain regions (Biombo) this percentage was as high as 89%. For CLTS re-verification: over 5000 households were visited in villages declared ODF during 2010-2015. Of these 85% had access to a latrine. The household survey also showed that 90% of households rely on open wells for drinking water, at occasions despite the availability of hand pump.



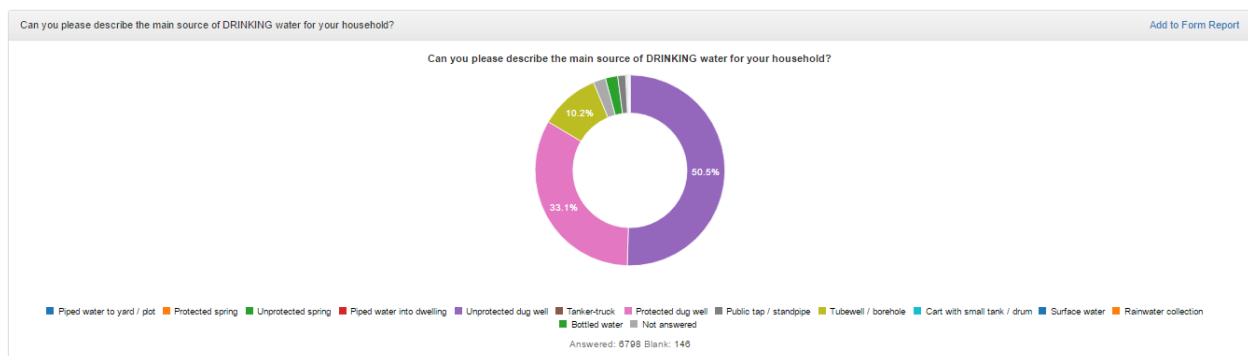
Issue/Background:

Although WASH services and policies show improvement, the overall situation remains burdened with multiple problems. The JMP showcases Guinea Bissau as the 6th best country in the world in terms of gaining access to water. From 52% (2000) to 79% (2015). The self reported data and observations through MICS are comparable across nations, but tend to overestimate socially desirable behaviour. More in depth observational surveys might give a better idea of the actual hygiene behaviour of communities and their access to water and sanitation.

In 2016 UNICEF carried out a series of assessments showcasing the frailty of services and systems:

1. An assessment of 138 health centres showed that none of the 66 type C (community health centres) had running water within the facility and 58% had no electricity.

2. A verification of data from 2009 borehole inventory shows that none of 5000 registered water points have been updated for functionality, nor was any new water point entered since. An assessment of available borehole logs in the Ministry showed ongoing problems with data accuracy, management and digitalization.
3. During the year, the ministry and UNICEF have carried out a large scale waterpoint inventory, utilizing cloud based database and smartphones. The inventory shows that 49% of the hand pumps are out of order. In the region of Biombo 96% (!) of the installed pumps are not working.
4. Recent household survey conducted in 700 already certified ODF villages (2011 -2015) shows that nearly 90% of the community members continue to rely on an unprotected water source for their water, much higher than 49% as expected based on MICS 2014.
5. A geospatial cross analysis performed by UNICEF in 2016, shows that 35% of the Guinea-Bissau villages have never had access to a safe water. There are multiple reasons for this, such as the small size of the villages (under threshold of 150 inhabitants), and/or difficult access for traditional, heavy borehole rigs. There is a large equity gap that leaves people from small villages underserved in terms of water but also health and education services. UNICEF encourages the government to develop strategies using low cost technologies to reach the never served communities, such as rainwater harvesting and/or manual drilling.



Rationale:

The database of existing borehole was a tremendous undertaking in 2009 but had never since been updated. The functionality of water pumps was unknown but suspected to be very low. The large percentage of malfunctioning pumps was due to lack of availability of spare parts. The only two official pump types (Inkar and Vergnet) are both imported by the same supplier, resulting in a market monopoly. The pumps and their spares are only sold in the capital Bissau. The lack of spares results in a completely dysfunctional system of pump repairs leading also to loss of dedication and skills of existing pump mechanics. The confidence and cost involved for the communities to commit to pump repairs in these conditions has proven too large and thus when a pump fails it remains failed. UNICEF supported the government to increase the number of the sales point of spare parts from only the capital and also make spare parts accessible in the regions. The UNICEF supported monitoring system, including marking of water points with serial number, will allow for regular updating of water point functionality and effectively serves as a list of business opportunities for the pump mechanics. They can then offer their services to the communities, utilizing the fixed price list agreed with the sole supplier of pumps and the

responsible ministry. To ensure regular reporting on water point functionality, checking on water points has been introduced into the reporting forms of the Community Health Workers. There was also very limited data on the status of the 1200 ODF communities and an interest from both unicef and DGRH to learn more about their status to review effectiveness of the program but also for the upcoming ODF region declaration. Thus 700 communities were visited for reverification.

Strategy and Implementation:

In order to ensure a functional and up to date database it was decided to commence smartphone based data collection. A desk review of existing tools available at the market resulted in the identification of mWater as the best suitable platform. The existing platform was adapted to local conditions: populated with existing data on water points and villages and a survey form was developed jointly with partners. Partnership was established with 6 local NGOs who were trained in utilizing 45 smart phones procured through UNICEF Supply Division to introduce data in the app. The government was engaged in conducting data cleaning to ensure the quality and in supporting NGOs.

Resources Required/Allocated: Data was updated through key NGOs and the responsible ministry. The costs associated is around 100,000 USD

Progress and Results:

Except for the actual numbers visited and the showcasing of the non functionality of handpumps, the waterpoint and CLTS survey has triggered a renewed interest in data collection and display within the ministry. It will also be a powerful tool for planning future programs that should be geared towards maintenance of handpumps and alternative solution for never served populations

Lesson Learned:

The advantages of use of smart phone based data collection system are many; geo localization of all waterpoints and villages, the solidity of a cloud based database decentrally updated and the engagement of the WASH working group in the introduction of accurate data.

The move to smartphone based monitoring and cloudbased database management was initially met with scepticism from the Ministry and partners as well as within UNICEF. Smartphone monitoring is by no means a silverbullet, but it does provide location specific and standardized format of data which makes for a comparable and updateable dataset. The cost for the actual unit is minute compared to the human hour costs of paper based monitoring and the costs associated with it. Additionally, on a personal level the smartphone is a powerful companion for any modern professional and will contrary to the GPSs of yore always remain charged and ready to log locations. Not a single phone was either damaged or went missing during the entire operation and on top of the good data provided, Facebook postings show enumerators to be very adept technology users and peer educators.

As data collection proceeded, the enthusiasm of all involved partners was visibly growing in particular as the situation on the ground started to visualize in graphs and maps. For individual data collector, seeing their own work contributing to the bigger picture further enhanced motivation to provide good quality data.

Engaging an existing system for data entry, in the case of Guinea Bissau, mWater, signifies handing over the maintenance of the database to an expert in that domain. The resilience of a database not pivoted on a few trained ministry technicians and a solitary desktop is vastly higher. Backup copies are of course routinely downloaded to not lose any data should the company for some reason disappear. No usage fees are demanded for utilization of the system. Wash in Guinea Bissau definitely believe in this type of data gathering as a best practise and will expand within the app to both wash in markets, wash in health centers and wash in schools together with the respective ministries.

Moving Forward:

Following the success of water points monitoring and ODF re-evaluation, UNICEF Guinea Bissau commenced utilizing the mWater application for all steps of CLTS programming including conduction of base and end-line surveys that provide very detailed data on behaviour change in sanitation, source of water and water treatment at house hold level. 700 new villages is targeted to be declared ODF during 2017 and conducting 7000 household visits to obtain baseline and endline data will be very interesting tool to assess programme effectiveness and identify potential areas of improvement for program development.

The gathered data will also be analysed in depth to analyze the link between distances to borehole with pump visa-vi inclination to use the safe hand pump. The data showing that only 10% of the over 6000 households are using a handpump for their water is worrying and reaffirms the case of small scale piped systems.

The Wash in schools monitoring will also provide very valuable information of the status of wash infrastructure as well as the elusive hygiene practises. All NGOs active in CLTS routinely visits the schools when communities are passing to Open Defecation Free status and 500 of Guinea Bissau's 2000 schools is expected to be visited during the year.

Integrated monitoring system that collects and process data on CLTS, WASH in schools, water availability and use will be used to develop a village score card to highlight inequities, converge interventions, achieve synergies and maximize effects for children.