



Centre International d'Etudes pour le Développement Local

10 place des archives 69288 Lyon cedex 02 France ☎ +33 4 72 77 87 50

ciedel@univ-catholyon.fr www.ciedel.org

Evaluation Report

External Evaluation - NSA MAKENI PROJECT – Sierra Leone

6/7/2016

Etienne Noel: etienneda@gmail.com

Olivier Munos: omunos@univ-catholyon.org

Résumé Exécutif

Le projet, mis en place par InterAide initialement de 2011 à 2015, et étendu jusqu'en juin 2016 suite à la suspension d'activités de 6 mois consécutive à la crise d'Ebola, s'articule autour de deux composantes complémentaires, eau et santé, avec comme finalité l'accès durable des communautés rurales aux services. Le projet entendait plus particulièrement :

- Suivre et réduire au niveau communautaire les principales causes de mortalité infantile en améliorant entre autre l'assainissement sur 3 chefferies du sud du District de Bombali ;
- Développer durablement un service de gestion et de maintenance l'approvisionnement en eau suivant une logique de partenariat public-privé sur 7 chefferies du sud du District de Bombali.

L'évaluation finale du projet NSA Makeni a eu lieu fin mai 2016 avec deux évaluateurs du CIEDEL, un sur la partie Eau et un autre sur la partie Santé. Huit jours de mission terrain ont été dédiés à chacune des composantes du projet, permettant la réalisation d'une soixantaine d'entretiens auprès des communautés, acteurs clés, autorités, décideurs et équipe d'InterAide. L'évaluation s'attache uniquement à analyser les résultats sur la période contractuelle du projet sans présager sur la partie eau qui bénéficie d'une deuxième phase de financement, des évolutions et réorientations éventuelles enclenchées récemment. Les principaux retours et enseignements se résument comme suit :

1. Des résultats globalement positifs permis entre autre par une approche communautaire efficace et une capacité de résilience forte.

Au cours de la phase d'analyse documentaire et des investigations de terrain, l'évaluation a mis en lumière **l'atteinte et parfois le dépassement de la majorité des résultats attendus** du projet, à la fois au niveau quantitatif et au niveau qualitatif en faisant ressortir en particulier :

- Une **efficacité de l'approche communautaire** développée par InterAide qui a permis avec des moyens limités (comparativement aux autres opérateurs) une émancipation visible des communautés, une appropriation des approches proposées induisant le développement de nouvelles pratiques malgré des logiques d'assistanat encore très fortement ancrés ;
- Une **adaptation en continu de la logique d'intervention et une forte réactivité d'InterAide et ses équipes** avec une volonté d'accompagner l'opérationnalisation des stratégies nationales, de concilier les approches avec les autres opérateurs sans remettre en question les objectifs du projet et malgré un environnement institutionnel peu favorable particulièrement sur la composante santé.

2. Un contexte d'intervention porteur, en transition de l'humanitaire vers le développement, fortement impacté par la crise d'Ebola en 2014.

La guerre civile au Sierra Leone s'est officiellement finie en janvier 2002, après 10 ans de conflit. Le projet a été donc été initié dans un contexte de transition avec la diminution des interventions humanitaires et le développement de réflexion

et intervention de développement. Le projet à travers la volonté de développer un accès durable à des services de base s'inscrit dans cette dynamique de transition. Malheureusement l'épidémie d'Ebola de 2014 a mis en difficulté ses efforts avec :

- Une **suspension temporaire des activités pendant 6 mois** limitée dans ses impacts par le maintien d'un service minimum des équipes à destination des communautés (visite sur la journée, contacts téléphonique) ;
- Un **redéploiement des interventions humanitaires** avec l'arrivée massive d'opérateurs sur la zone d'intervention, avec l'effet combinée sur la (non) coordination des activités et la concurrence pour l'accès aux bénéficiaires et communautés ;
- Un **impact durable sur les mentalités et perception au niveau communautaire**, induit par le cloisonnement des communautés durant l'épidémie, et les différentes rumeurs véhiculées autour d'Ebola (empoisonnement des puits par exemple).

Au final, la crise d'Ebola n'a fait qu'exacerber des réalités bien présentes :

- Un **état et des services déconcentrés en structuration**, qui peinent à effectivement coordonner et rationaliser les interventions des opérateurs ;
- Une **difficulté à traduire en acte les vellétés de coopération entre opérateurs de terrain**, favorisant les structures ayant les moyens les plus importants, avec des difficultés pour InterAide à être entendu au niveau institutionnel malgré une reconnaissance de l'expertise technique de la structure.

3. Une nécessité de consolider les services développés et valoriser les acquis du projet

Le projet a initié des dynamiques de développement :

- En **légitimant au niveau communautaire et institutionnel des services et des personnes**, allant jusqu'à la certification de techniciens par les autorités du district ;
- En développant sur la partie eau des **activités économiques**, à travers un réseau d'entrepreneurs offrant un service de maintenance et des communautés en capacité d'épargner et de s'offrir ces mêmes services ;
- En proposant une **stratégie de fin de projet cohérente** en renforçant et continuant les actions sur l'eau et en mettant en suspens les activités santé faute de stratégie sectorielle nationale et valeur ajoutée d'InterAide dans le paysage des opérateurs existants.

Pour autant, ces dynamiques se sont trouvées limitées dans leur progression par un environnement peu favorable conduisant à :

- Des résultats mitigés sur les aspects coordination avec les pairs et relations institutionnelles malgré des efforts nourris pouvant être expliqués par :
 - Une relative difficulté d'InterAide à définir une **stratégie de communication** en lien avec les moyens (limités) mobilisable sur cette question
 - La faible structuration de l'aide internationale en Sierra Leone

- Des **difficultés sur la pérennisation des chaînes d'approvisionnement** caractérisées par une relative défaillance des opérateurs économiques à proposer durablement et à des coûts abordables des produits techniques (pièces détachées, chlorine, etc.) en dehors de Freetown.

La conséquence la plus immédiate de ces différents facteurs limitants a été la nécessité pour InterAide, à défaut d'alternative crédibles, **d'assurer un rôle central** dans l'ensemble du processus limitant les options en terme de stratégie de sortie et la capacité des filières et acteur à s'autonomiser.

En ce sens, les recommandations formulées s'attachent donc plus particulièrement :

- Sur la composante eau, à autonomiser la dynamique en anticipant un retrait progressif et passage au second plan d'InterAide en n'intervenant plus directement dans la dynamiques mais en accompagnant les acteurs mobilisés tout en contrôlant les points critiques de la chaîne de valeur (qualité des pièces, qualité du service, respect des accords commerciaux entre techniciens et communautés, etc.) ;
- Sur la composante eau, à élaborer un positionnement et une stratégie de lobbying en direction des pairs et institutionnels pour asseoir la légitimité sectorielle d'InterAide et favoriser une évolution structurée du secteur eau ;
- Sur la composante eau, à poursuivre les efforts de structuration de la chaîne de valeur, particulièrement sur l'appropriation des standards et notion de qualité au niveau des communautés et l'approvisionnement en pièces détachées à Makeni ;
- Sur les deux composantes, à produire et partager des savoirs techniques, méthodologiques, des retours d'expériences et études de cas afin de proposer une autre façon de faire ou vision à même de nourrir la réflexion sur les approches du développement en Sierra Leone.

Summary

Résumé Exécutif	2
Summary	5
Acronym	6
Acknowledgments	6
1. Introduction	7
1.1. Rational of the project	7
1.2. Context of the project	7
2. Methodology	11
3. Findings	15
3.1. Achievements on the Health component	15
3.2. Achievements on the Water component	18
3.3. Evaluative questions on Project resilience	22
3.4. Evaluative questions on Empowerment	24
3.5. Evaluative questions on Supply chain strengthening	26
3.6. Evaluative questions on Communication & relations	29
4. Discussion on results achievements, effects and impacts	31
4.1. Achievements of expected Results	31
4.2. Overall and specific objectives	33
4.3. Consistency to set two distinctive components versus and integrated one	34
5. Recommendations	35
5.1. Water component level	35
5.2. Health component level	37
Annex A – Areas of Intervention	38
Annex B – Interviews list	40

Acronym

ARI	Acute Respiratory Infections
CBP	Community Based Provider
CHW	community health worker
CLTS	Community Led Total Sanitation
DHMT	District Health Management Team
DMO	District Medical Officer
HHWT	Household Water Treatment
NGO	Non-Governmental Organization
NSA	Non State Actors
PHU	Peripheral Health Unit
U5C	Under Five Children
U5MR	Under Five Mortality Rate
WH	World Hope

Acknowledgments

We appreciated the warm welcome from InterAide staff in Makeni office, their availability and kind and helpful support for the organization of the field mission. They gave us all the information we needed to understand the situation and to be able to implement the evaluation in the best conditions possible.

We particularly thanks the team that organized and joined us for the field mission, and made interviews with PHU, CHW, Pump Technicians, Water committees and Communities possible. We also thank Imma and Geoffroy that managed to meet local partners and key actors and authorities in Makeni and Freetown.

1. Introduction

1.1. Rational of the project

Sierra Leone is currently living a transition from a post-emergency situation to a more conducive environment for development. This situation is due to:

- The return of political stability;
- The consolidation of civil peace;
- A certain revival of the economy;
- The recent launch of the national health sector strategic plan;
- A tenuous evolution in other public services.

However, Sierra Leone is still facing many challenges:

- A staggering child mortality rate;
- A huge deficit in infrastructure;
- A health rate places Sierra Leone among the most vulnerable nations, with 70% of the population living below the poverty line.

Among the 14 Districts of the country, Bombali appears as one of the most deprived, with a soaring ratio of rural poverty, a very high incidence of food insecurity and child mortality, and a health structural network comparatively weak.

1.2. Context of the project

Overview of the project

InterAide received a Grant from European Development Fund Non State Actors (NSA) programme. The project was funded by the European Union (80%) over a 60 months period, started 1st January 2011 under the title: “Improvement of rural communities, local and institutional actors' capacities to manage and sustain their access to basic health services, sanitation and water supply -South Bombali district -Sierra Leone”.

The total amount of the project was 863 301€. It was expected to finish in the month of December 2015 but because of the 9 months freezing due to Ebola crisis they allowed a 6 months no cost extension until June 2016.

At the beginning of the project the local partner was “MADAM” a Sierra Leone Non-Governmental Organization (NGO) that has already a sound experience in projects' management and with whom InterAide shared experience in the frame of the Food Security project in North Bombali district. MADAM was responsible to facilitate the hygiene and sanitation component. Their role was to support the communities to draw simple mapping of the sanitation situation of their village and promote behavior changes by empowering them to plan environmental improvements within the objective of a total sanitation. They accompanied the communities in the construction of their latrines, in the evaluation of their progress and more generally, assessed with the sanitation division of the District Health Management Team (DHMT), the global impact of these hygiene and sanitation activities.

The project globally intended to strengthen the capacities of the local communities and decentralized authorities (DHMT and Water Supply Division) to durably improve access to health services, water supply and a safe and reliable sanitation, by efficiently putting into effect the national development priorities appeared as a relevant option with the following final objectives:

- Child Mortality reduction: 12 Peripheral Health Unit (PHU) catchments area will be targeted by the project, corresponding to a population of 84 000 habitants, including 14 700 children under 5 years old.
- Maintenance of the water supply systems: 7 chiefdoms of south Bombali District targeted with a total estimated population of 288 720 inhabitants.

The project has been designed and implemented in two independent components.

- **The Health component**, implemented on 3 chiefdoms (see map in Annex A), with the development at first of the Community Based Providers (CBP) who became Community Health Workers (CHW), sensitization session on Malaria, diarrhea and Acute Respiratory Infections (ARI), building of Slabs latrines in primer and Community Led Total Sanitation (CLTS) approach when national policy changed, the implementation of Household Water Treatment (HHWT) using Chlorination in 3 chiefdoms of south Bombali district. Health has been inspired by the sectorial strategy initiated in Madagascar while water component has been inspired from Malawi experience and extended from North Bombali project. Health component has been deeply influenced by the changing context, with major adjustments on strategy and output. In consequence, as InterAide added value is not clear enough therefore the component will not be continued further.
- **The Water component**, implemented on 7 chiefdoms (see map in Annex A) developed from InterAide experience in North Bombali district with the objective to get sustainable and endogenously managed access to safe water at (mainly) rural communities' level. The effort have been made along the value chain on both three major pillars: (i) access to technology by providing adapted devices and spare parts, (ii) access to skills by training local technicians, (iii) access to information by implementing large scale awareness at communities, practitioners and institutional level. Water component less suffered from the context with minor adjustments on strategy. InterAide activities on water are continuing, merging workplan and project team with North Bombali project.

Timeline of the project

	2000	...	2007	...	2011	2012	2013	2014	2015	2016
Health Component	Health sector strategy at IA level to reduce child mortality (starting in Madagascar)		IA starting in Sierra Leone in Noth Bomabli district		Beginning of the project (3/01/2011) Baseline survey in Gbendembu chiefdom		Baseline survey in Biriwa Chiefdom	Baseline survey in Safroko Limba Chiefdom	Project restarting in March	End of the project (june)
					Recruiting of field facilitators. Recruiting and training of CBPs	Recruiting of field facilitators. Recruiting and training of CBPs	Arrival of World Hope under UNICEF support leading to CHW strategy revision	Starting Ebola crisis leading to project suspension as from september		Building of a CHW national policy
					With MADAM building of slab latrines in Gbendembu chiefdoms villages	CLTS promotion by national policy leading to adjustment of sanitation component	End of partnership with MADAM following Sanitation strategy revision			
						Sensitization sessions on Malaria and Diarrhoea in villages of Gbendembu chiefdom	Sensitization sessions on Malaria and Diarrhoea in villages of Biriwa chiefdom			Sensitization sessions on Malaria and Diarrhoea in villages of Safroko Limba chiefdom
							Massive mosquito net distribution in Biriwa leading to EU amendment to revise logframe			Starting of the HHWT in november in Gbendembu Chiefdom
Water component										

Contextual changes and end of project strategy

Both component have been influenced and adapted to the context changes, among them the most impacting ones are:

- In 2012, Government promotes the CLTS approach, the slab latrines were not priority anymore, and villagers had to choose their own way of building latrines without dedicated funds. It implied a switch in sanitation project strategy to fit with governmental guidelines.
- In 2013, UNICEF widely supported World Hope (WH) to strengthen the development of CHW project in the entire Bombali District with the objective to set 750 CHW among villages. At this time InterAide were leading 57 CBP in Gbendembu chiefdom. The role of CBP was quite similar to CHW with a significant added value for the CBP giving drugs for Malaria and Diarrhea. InterAide changed the name of the “CBP” to call them “CHW” but didn’t change their duties.
- In 2014, the Ebola outbreak begun that almost shut down the field activities for 9 months and induces the end of partnership with MADAM

The contextual changes more deeply impacted the health component, leading to a status quo where unbalanced situation with World Hope does not encourage for a continuation. In consequence, there is no willingness for InterAide to continue. However and above InterAide intervention, some questions are still pending:

- Is UNICEF able to integrate InterAide CHWs that are currently out of WH area of intervention? UNICEF project manager seems positive, but nothing has been validated so far.

- Who will be in charge of drugs distribution at the downstream of the supply chain? The stakeholders are still waiting for the national policy that should be issued by August 2016.

As mentioned, InterAide activities on water will continue, merging with North Bombali project. The chlorination, managed so far under health component has shown its efficiency and benefits for communities. It will be handed over to the continuing water project.

2. Methodology

As mentioned in the introduction, the project is composed of two independent components: health and water. The methodology of the evaluation has been designed in consequence with two dedicated consultants: Etienne Noel on Health component and Olivier Munos on Water component.

The methodology has been implemented in 3 steps:

Desk review

A briefing has been organized at InterAide headquarters office in France with Philippe De Redon and Nathalie Dupond. The main objective was to review the main project milestones and achievements, agree on the logistic of the field mission and identify relevant literature to be shared with the consultants.

Following this briefing, the consultants elaborated a briefing paper to precise

- Evaluative questions and associated hypothesis to be assessed during field mission;
- Main observations on the project, level of achievements per component and impact of the context on project implementation
- Expected sample to be interviewed with a list of discriminant variables per target group (see below for the adjusted sample).

Field mission briefing

The field mission occurred from the 26th of May up to the 2nd of June 2016 with in total 8 days for two consultants (16 days on the field in total), 7 in Makeni and last one in Freetown.

The first two meetings were held with InterAide management and technical team to

- To review the objective of the mission, validate the logistic and InterAide team availability;
- To review the evaluative question and associated hypothesis;
- To review the variables chosen to discriminate the target groups;
- To review the level achievements per component and per activity as based on the logical framework.

Sample selection

For the Health component, the discriminant criteria finally chosen among the target groups were:

- The **communities** identified during the baseline survey and that have been sensitized to Malaria and diarrhea:
 - *Group 1*- with CHW from InterAide, slab latrines built by InterAide;
 - *Group 2*- with CHW from InterAide, latrines built with CLTS approach;
 - *Group 3*- with HHWT training;
- **CHW** that ensure medicines distribution and the link with PHU:
 - Group 1: trained and paid by InterAide
 - Group 2: trained by InterAide and paid by WH
 - Group 3: CHW peer supervisor

- **InterAide team**
 - Field Facilitator recently hired
 - Field Facilitator hired a long time ago and with responsibilities: Team Leader, CHW Officer, WatSan.
 - Management Team: Operation Officer, Program Manager.
- **Key institutional actors:**
 - Village chief
 - PHU nurse
 - District Medical Officer (DMO)
 - Chiefdom Health Officer (CHO)
- **NGOs** working in the same field of activities or with InterAide partnership. World Hope CHW project coordinator and MADAM management team.
- **One interview** has been done with a chlorine reseller in Gbendembu. It's hard to put him in a category.

For the Water component, the discriminant criteria finally chosen among the target groups are:

- **Pump Technicians** (Officer) that ensure preventive maintenance on communities' water pumps with:
 - Group 1: Recently joining the pool of Pump Technicians, after 2014
 - Group 2: Early joining the pool of Pump Technicians, before 2014
- The **communities with hand pump wells**, identified during the baseline survey with the communities that have been:
 - *Group 1-* Mobilized but refused to join InterAide hand pump maintenance framework considered as NOT ACTIVE;
 - *Group 2-* Mobilized and trained to set a Water Committee but did not (yet) requested for repair (1st shot) or maintenance on their hand pump considered as TRAINED & NOT ACTIVE;
 - *Group 3-* Mobilized and trained to set a Water Committee, and did request and paid for repair (1st shot) and did not or stop perform maintenance yet considered as TRAINED & LIGHTLY ACTIVE;
 - *Group 4-* Mobilized and trained to set a Water Committee, and did request and paid for an intervention and did perform repair (1st shot), maintenance, even rehabilitation every year considered as TRAINED & ACTIVE.
- Key institutional actors at District level : the **Water directorate** in charge of certifying the Pump Technicians, coordinating WASH operators and endorsing water policy; **Paramount and section chief** that facilitated relations with communities and link between Pump Technicians and communities;
- The **peer & technical actors**, as stakeholders of the water value chain, working in the field of drinking water access, pump maintenance and spare part supply;

Considering the time and resources available, the objective was to rely on a **qualitative and representative sample** to catch an exhaustive and diversify picture of the situation. To do so, no random selection has been done, and sites/individuals to be interviewed have been jointly decided with InterAide team and the consultants taking also into account the accessibility (rainy season) and distance from the locations.

Heath Component	
Communities	7 focus groups have been conducted in communities. 3 focus group about sensitization session on Malaria and Diarrhea and latrines building with CLTS approach. 1 focus group about slab latrines building, sensitization session and InterAide CHW. 3 focus group about HHWT and InterAide CHW effect. All the meeting were formed of at least the chief, members of water committee (when there was some), CHW, and others members of the village which the number of presence varied from 9 to 30 and many children. Men spoke more than women, but many women used to speak especially when they had responsibilities as CHW, Chairlady or trainee.
CHW	9 CHW have been interviewed. Among them 4 are peer supervisor, 6 have been trained as CBP and 3 have been trained as CHW, 2 CHW have been trained by InterAide but received incentive from WH.
InterAide Team	10 individual interviews have been done with all the Health component staff. 4 new FF hired in 2014, 1 FF team leader, 1 CHW Officer, 2 Watsan technician, 1 operation officer and 1 project Manager.
Key institutional actors	7 individual interviews have been implemented in different levels: 1 with DMO, 1 at chiefdom level, 4 at the PHU and 1 with a chief of a village.
NGOs	1 individual interview with World Hope coordinator and 1 group interview with MADAM management staff (3 persons) have been implemented.
Water Component	
Pump Technicians	5 pumps technicians (3 new/2 old) have been interviewed using a semi open questionnaire. It includes Osman Kamara Norta, chairman of the Pump Technicians network.
Communities	12 focus group has been conducted in communities , as individual interview (with Water Committee members for instance) a community was difficult to implement. Attendance was highly variable from 5 to 15 adults, men and women. The group was for 90% of the interviews composed by at least the Chief community and/or one of the Water Committee members and some Elders. It has not been possible to interview a full Water Committee. Quality of the collected data varies from one community to the other, with some difficulties in two communities to collect reliable data. Regarding the sample, from two to four communities from the four here above groups have been interviewed giving a representative picture of the situation for each group. In addition, focus groups have been conducted in communities where mismanagement of the savings occurred and a community close to urban area that is implementing per bucket rate.
Key institutional actors	4 individual interviews have been implemented at Planning and Monitoring department of the District Council, Water Directorate, Paramount and section Chief level.
Peer and technical actors	4 large and 1 small spare part retailers in Makeni and in Freetown have been shortly visited and spare parts availability assessed.

	Unfortunately, it has not been possible to meet Sawalco and Ministry of Water on the last day in Freetown.
--	--

See detailed list and interview synthesis sheets in annex B.

3. Findings

3.1. Achievements on the Health component

The following part is a synthesis of the **quantitative achievements** of the health component of the project. It is based on the logical framework activities:

Activities and sub-activities	Objectives	Baseline situation	Achievements
1.1 Prepare with DHMT and all health stakeholders the conditions for a planned, concerted and participatory intervention			
Meeting and coordination with DHMT	No clear objectives	-	InterAide had several meeting with DMO with poor interactivity and even no interactivity while sharing information CHW strategy elaboration. Nonetheless the DMO has been regularly informed of InterAide activities.
1.2 Teach with PHU staff adapted information on the main pathologies (Malaria Diarrheal diseases and ARI) for the targeted villages and particularly the young mothers			
A diagnostic of the initial U5MR, instant prevalence of fever, diarrhea, cough and access to latrines in 3 chiefdoms		-	A baseline survey has been done in the 3 chiefdoms of south Bombali (Gbindembu 2011, Safroko 2014, Biriwa 2013).
U5MR decrease	90% of the Malaria fits treated at village level	U5MR: -Gbindembu: 298‰ -Biriwa: 193‰ -Safroko: 128‰	Malaria fits: Gbindembu chiefdom: in 2015 95,51% of the Malaria fits were treated by CHW at village level, in 2016 up to March, 94,9% of the Malaria fits were treated by CHW at a village level. Biriwa and Safroko chiefdoms: no data because of the gap of CHW from InterAide. Safroko: no data because of the earlier baseline survey (not even one year remained)
Educational sessions toward mothers	4800 corresponding to about 8000 Under Five Children (U5C), participated in the educational sessions	None	Two sessions focused on Malaria and Diarrhea diseases, training sessions for respiratory disease were never integrated to the corpus. From 2011 to 2014, 4250 Mothers have been trained in both sessions. In 2015, 653 mothers have been trained in 2 sessions. In 2016 up to March 437 mothers had participated in two sessions. In total 5340 mothers participated in the 2 sessions. The results far exceeded expectations.

<p>Communities knowledge and practices on hand washing and diarrhea prevention</p>	<p>Communities knowledge and practices on hand washing and diarrhea prevention increase</p>	<p>No clear Data but it seems that during the baseline survey, the hand washing was the most common answer of the diarrhea cause.</p>	<p>For example in Biriwa chiefdom at the baseline villagers answer at 11% that Hand Washing was a reason of diarrhea. After sensitization,85% answered and the 3 others causes were also known (latrine and safe water). The most known practice is the hand washing after defecating (86%).</p> <p>In Gbendembu chiefdom: in 2011 27% of villagers answered that Hand Washing is important to fight against diarrhea, in 2013 61,3% give the same answer, it's a 200% increase.</p>
--	---	---	---

Activities and sub-activities	Objectives	Baseline situation	Achievements
1.3. Facilitate access to preventive measures for Malaria, ARI and diarrheal diseases including access to treated mosquito nets, community total sanitation and hygiene improvement.			
Access and use of mosquito net	80% U5Cs sleeping under mosquito net. 75% appropriate used of bed net due to training.	U5C sleeping under bed net: · Gbendembu: 91% · Biriwa: 70,2% · Safroko: 43,4%	Due to the results of baseline survey, Biriwa was the first targeted chiefdom for the massive mosquito net distribution in June 2014, and Gbendembu was the second targeted chiefdom due to the knowledge of the local network. The penetration rate of the U5C sleeping under a treated mosquito net in the targeted villages represents more than 80%
Access and use of latrine in 100 villages.	-1,500 latrines / 95% installed and used -80% of the villages with 100% latrine access		1414 slab latrines, across 103 communities have been casted and at minimum 1086 installed (data from 2012). Since the implementation of the CLTS strategy, at the beginning of 2015, a number of latrines have been rehabilitated or built. Each of the 103 villages concerned in Gbendembu have reached more than 90% of coverage.
1.4. Improve access to early treatment and referral system with community based distributors and PHU's			
Setting CHW network	More than 225 CBPs are trained and in link with 15 PHUs of 3 chiefdoms of South Bombali		57 CHWs have been identified and trained instead of 225 CBP planned in only one Chiefdom - Gbendembu . 10 cases were supported every month per each CHW.
1.5. Reinforce the performances of Health Actors to efficiently control and monitor U5MR			
A surveillance system allowing a comprehensive picture of the U5MR and the evaluation of its main determinant is available.		-Pictograms system used by CHW when sending someone to the PHU. -A monthly meeting of CHW at PHU.	No clear Data but the pictogram system is very useful to determinate the origin of a patient. The monthly meeting is also very useful to collect information from CHW.
At least 12 of the 15 PHUs are able to collect and centralize the information related to child mortality, they receive regular reports of the CBPs and communicate their results to the Makeni DHMT			The CHW are doing report in the PHU of Bembembu chiefdom (4 PHUs) to the Nurse.

3.2. Achievements on the Water component

The following part is a synthesis of the **quantitative achievements** of the water component of the project. It is based on the logical framework activities.

Activities and sub-activities	Objectives	Baseline situation	Achievements
1. Create awareness and Mobilize the district water actors for a planned, concerted and participatory implementation of the water management and maintenance services			
Assessment of existing water supply infrastructure status and management in 7 chiefdoms	1 baseline study	A survey has been implemented by World Bank in 2012 ¹ .	The 2012 world bank survey has been used as basis, corrected/completed and kept regularly updated so far
Operational coordination and information system among all water actors is organized at District level	Will to support authorities to set pump standards and information system among all water actors	In theory, a coordination meeting is held monthly at district and national level with WASH actors	(i) InterAide anticipated to hand over the database at Water Directorate level and to make it accessible to all actors but capacities to manage such information system still need to be strengthened. InterAide finally shared rough data to others actors. Furthermore a national survey on water point should be implemented soon (under world bank). (ii) InterAide is active at district and national level coordination meeting pushing for more cooperation and standards, even during Ebola time. Lack of constraining decision from Water Directorate and Ministries make any step forward based on willingness from the actors. For instance, World Hope is now pushing any new borehole construction to be managed under InterAide water committee and preventive maintenance strategy. At the opposite, even if authorities push for IM2 & Kardia pump with stainless steel materials they still allow PVC pipes. It has even recently been implemented by UNICEF. ²

¹InterAide participated to crosscheck information

² Some discussions are on-going (from June 2016) at national level to deal technical requirements with practitioners

Activities and sub-activities	Objectives	Baseline situation	Achievements
2 Increase public and private competences to establish a sustainable Maintenance and Repair System over the South part of Bombali District			
Pump officers are trained, officialized and cover potentially all maintenance of the water resources in 7 chiefdoms	35 pump officers (2-3 per chiefdom)	-	Objective has been revised to 7 pump officers with the same geographical scope as initially targeted to ensure viable business opportunity for them. They have been active from four to two years ago. They are all certified by the Water Directorate, benefited from refreshment trainings and regularly perform intervention (422 in total from 2011 ³).
Pump maintenances are done for communities by pump officers operating in 7 chiefdoms	At least 400 communities 2 preventive maintenance per year	333 communities with 569 hands dug wells and 110 boreholes	Objective has been adjusted to one preventive maintenance per year for both financial and technical reasons. 451 communities mobilized and 807 water points identified (1.8 water point per community in average) 148 water points are following maintenance plan (85% success rate)
Pumps of water wells or borehole are repaired in 7 chiefdoms	120 rehabilitation or repair	Among the 679 wells, 66% of the pumps are functional	175 water points/97 communities with at least initial repair done
The spare part stores deliver spare parts for pump officers of the whole district and the spare part revolving fund is well managed.	Spare part available in the whole district	(Second hand spare-part locally available on black market)	Spare parts are supplied by InterAide. It purchased them in Freetown trying to find/motivate a local dealer in Makeni to sustain the supply with no success so far. Coping strategy still need to be validated, with a trial on-going to supply through a local dealer in Makeni
Water users benefit of a durably restored and maintained access to safe water	200 villages 50 000 beneficiaries		With an average of 250 individuals per water points, the project to roughly improve water situation for 44 000 people.

³ Including initial repair and maintenance

Activities and sub-activities	Objectives	Baseline situation	Achievements
3. Enhance commitment and ownership of communities/schools/ PHUs for a durable management of their water supply infrastructures			
An autonomous chlorination system is experimented	Water Committee managing chlorination in each less than 150 inhabitant communities		In 2015, it is a total of 11 communities using HHWT and who successfully continue to drink treated water from their local source and 9 communities waiting for HHWT. The system is working well and people seem to like the taste of the water. But many villagers would prefer to have a well as is it a mark of wealth.
Water committees of communities/schools/ PHUs management capacities are increased and collect water fees regularly.	200 active water committees	-	Among the 451 mobilized communities, 377 ⁴ (84%) communities were effectively trained to set up a Water Committee and among them, 97 (23%) managed to collect enough contribution to perform an initial repair (1 st shot) or maintenance. The contribution process seems to be more effective in community where Pump Technician was present during sensitization (which was not possible at the beginning of the project). Even if regular visit were paid at Water committee set communities, it seems that motivation decreases with time making contribution for first repair more and more hypothetical, especially close to Ebola crisis period that restrains dynamic at communities' level.
Ownership of water well user is reinforced and acceptance to pay for water increased.			Water access has been driven for the last 20 years (at least) by aid assistance, implementing water wells and rehabilitation for free, with even no information on the cost and the responsibility on the infrastructure. So the project clearly strengthened the communities on water well ownership with practical and financial involvement on maintenance for instance. It seems understood that water access is not free but willingness to pay remains an obstacle. In addition, community dynamism can deeply be affected by the context and the environment with limited mitigation

⁴ Could be more than one water committee per communities and a water committee could be in charge of more than one hand pump well

			capacities from Inter Aide: (i) Ebola crisis for instance stopped the water contribution process in some communities; (ii) some wells are still implemented through aid assistance without still any consideration for the preventive maintenance.
--	--	--	--

3.3. Evaluative questions on Project resilience

Evaluative questions

- *Retrospective analysis:* Evaluative questions focusing on both capacity to adapt to changing/instable environment and its consequences at least (i) evolutions/revisions of the partnerships and relations with institutions, (ii) level of achievements
- *Prospective analysis:* Capacity to increase answers to basic needs by developing additional activities on health and water supply sectors especially on Household Water Treatment

Main observations and findings

High reactivity on field constraints: Project strategy has been elaborated based on InterAide experience in north Bombali district and Madagascar. At water component level, relying on a full and complex dataset collected during the baseline situation elaboration, InterAide re-assessed its strategy to better fit and sustains the expected results of the project (e.g. reducing the number of expected Pump Technicians to maximize viable business opportunity for them, adding a cash box to cope with mismanagement at community level). In addition, Project team showed a high reactivity and flexibility trying to push one by one, the communities to reach the preventive maintenance framework, trying to find solution, and the most important, consolidating all those information in a central database. Finally, even if efficiency of such pushing approach could be questioned especially with a restrained team, InterAide succeeds to set and strengthen confident relationship with communities contributing to effectiveness of community financial contribution for water service.

The Ebola outbreak from August 2014, impacted the management level with the departure of the project manager and the 6 months forced unemployment of the field level. To cope with that situation, InterAide managed to:

- Early recruit a Sierra Leone long time based and staying during the epidemic expatriate manager;
- Train their staff on Ebola best practices (Non-touch policy for instance) and adapt their workplan, working conditions and means to the situation (no overnight on the field for instance).

Despite the fact that the villages were fearful of receiving foreigners in their midst, the Field Facilitator were able to reach the CHW or the Pump Technicians to accompany them and entitle them to continue their work.

Willingness to be resilient and to fit with the national policy but with unfavorable environment and too little external support: At Health component level, in 2012, the national policy promotes CLTS as a national guideline to improve sanitation in rural areas and it appeared in contradiction with the choice of InterAide to promote dome slab latrines. InterAide agreed to harmonize their activities stopping the slab latrines building and readjust the project using CLTS adapted to the field reality. The major difference was to support villagers to build latrines with traditional equipment such as wooden logs which was easier than building slabs. During the second quarter of 2013, UNICEF funded World Hope to train and support 750 CHW without taking into account the presence of InterAide and already trained CBPs in Gbendembu chiefdom. Tensions arose between InterAide and World Hope with an understandable bad feeling from InterAide not to have been considered as relevant player in the development of the local health system. Despite this, InterAide has

adapted its project to be consistent with the coming national policy. Furthermore InterAide has been able to show its relevancy and World Hope left InterAide responsible for coordinating the CHW in Gbendembu.

Above Ebola outbreak and its impact on field activities, challenges on water component have been more on consistency of field activities among practitioners with:

- A progressive switch from humanitarian to development approach that still need to be turn into practice to avoid one shot/free/lack of exit strategy interventions;
- Ebola crisis that increased the number of operators in humanitarian and development field, generating competition and discoordination.

Regular efforts from the project team have been done to enhance cooperation, expose InterAide water component strategy and share major documents (water points database for instance). However, apart from World Hope that is now setting as a condition to join preventive maintenance framework before doing new well, wells construction without any sustainability or maintenance consideration are still on-going on aid assistance.

Limited institutional lobbying capacities: InterAide preventive maintenance framework has been highlighted by district institutions as one of the first sustainable approach in WASH sector in Bombali district. It is in line with District objectives to set private based rural water maintenance mechanism through water Committees and Pump Technicians. Nevertheless, project still struggles for example to:

- Get systemically the certified by Water Directorate Pump Technicians attending to any water maintenance training;
- Get information on past and future water maintenance activities planned at practitioners' level⁵.

The main consequence is a high risk on the sustainability of the preventive maintenance framework: multiplication of Pump Technicians with limited business, increase to the tools that can be used to dismantle and steel pump, etc. Project made noticeable efforts to attend and to influence decisions and orientations at District level and more recently at National level, meeting regularly authorities, peers, trying to adapt and adjust, reporting even well by well any issue or observation.

Successful strategy to ease drinking water access for small and secluded villages: as from November 2015 a simple and innovative water chlorination method has been set up relying on local communities' empowerment. This approach enabled under 150 inhabitants' communities with poor or no access to clean water to get it at reasonable and affordable price. From a pilot activity, the project managed to overcome initial figures in short term. To do so, it managed to rely on already CLTS sensitized communities to dissemination HHWT. By combining approaches, the project managed to efficiently disseminate relaxant low cost safe water technology.

⁵ Government decided to take actions and not to give NGO registration if an NGO don't send information (at least at national level)

3.4. Evaluative questions on Empowerment

Evaluative questions

- *Retrospective analysis:* Evaluative questions focusing on the relevancy of the target groups chosen to achieve results, the capacity building/empowerment approach for those target groups especially quality-efficiency of the services and the capacity to sustain project achievements
- *Prospective analysis:* Capacity of the local authorities and institutions (at least) to build on relatively positive image following Ebola crisis management to enhance their positions/involvement on health and water supply sectors

Main observations and findings on Health component target groups' empowerment

What role for the CHWs? CBP training was relatively short and focused on the distribution of drugs against malaria and diarrhea. Training of CHW is broader but even if they receive drugs distribution training, WH and UNICEF CHWs does not administrates drugs because the DHMT does not provides drug yet. There is an opposition of views on the role of CHW which resulted in long delays and complications in the training and monitoring of CHW. Arguably the CHW who are accompanied by InterAide are the only ones in the District to distribute drugs. It is unclear what will be decided in the national policy. However, it appears that the distribution of basic treatments in the villages allows a quick response and a drastic reduction in deaths. That is why the choice of InterAide to train CHW on drugs' distribution seems rather relevant and efficient.

Effective empowerment of communities on basic sensitization: InterAide was able to make sensitization sessions in all the targeted communities of the three chiefdoms. As we could observed and evaluated on the field during focus groups discussion, these sessions led by Field Facilitator during their week of immersion in the villages seem to have a significant impact in changing people's behavior. Even if there are oversights after a few months, the results are visible. The use of various media is an asset to help memorize information: using the PRA method, group and individual rehearsals, icons display in the village visible to all and verification of information 6 months to 1 year after.

Chlorination, a temporary solution or a durable response to poor quality water for communities? Communities easily and early adopted the HHWT with fast and visible results. Diarrhea quickly diminishes, the water taste changes, families have a water container at hand that fills up every other day. The water committee approach has been understood, and the financial contribution does not seem to be a major issue. Unfortunately, it has been designed as a small scale pilot activity, and started late in the project in 2015. So, few communities could enjoy and effective sustainability does still need to be proved. The Chlorine supply chain still need to be strengthened and some communities are still considering Chlorination as a temporary solution expected well to be build.

An unexpected complementarity between slab latrine and CLTS approach: To assess the implementation and use of latrines we must take into account the two stages of the project. Initially slab latrines were built by MADAM after a schematic analysis of villages and habits of the inhabitants. The advantage of the slab latrine is to be strong, durable, hygienic, having standard sizes to suit any type of person, it allows an effective closure of the mouth and especially when the hole is filled (after ten years) it is easy to remove the slab, dig another hole nearby and reuse. The downside is that the villagers are dependent on an organization to build slab latrine that promote individualistic and dynamic management of health problems. The policy of supporting CLTS has promoted the recognition by inhabitants of basic hygiene, collective accountability of the health aspect of a village and the use of local knowledge. But CLTS requests an increased support from the associations

at least until the construction of latrines. The use of logs to cover the latrines is not always safe and can give less desire to villagers to use. Despite a desire to foster collective self-help, it was observed in some villages that assistance was not always working between families. Thus it appears that the combination of the latrine slab techniques and CLTS methods could promote ownership and sustainable use of latrines by the villagers. We could observe in many villages where both approach have been implemented that there is a sustainable use of latrines. Villagers are aware of the necessity to use latrines and they appreciate the quality of slab latrines. Contrariwise it's not certain that the use of latrines will be sustainable in communities where only CLTS has been implemented: latrines are not finished, they are often covered by garbage or by branches.

Main observations and findings on Water component target groups' empowerment

Fragile emerging dynamic at Communities' level: None of the communities have ever paid for a hand pump well construction. Local and international organizations continue to regularly implement infrastructure for free. The project, relying on a locally adapted and efficient logic of intervention, managed to raise ownership feeling at community level by involving them in Water Committee and preventive maintenance framework. Nevertheless, the amplitude among communities is high partly depending of the starting point in each community. Dynamic remains weak, some of the communities stopped during Ebola crisis for instance and InterAide is still (even if it tends to lower) the backbone of the process. Fortunately, a next phase (on water component only) of the project has already been granted which will permit to pursue and strengthen Communities Empowerment particularly on awareness raising on preventive maintenance issue, setting up of a contribution system, triggering maintenance mechanisms More globally and above the project itself, the lack of services in rural areas and limited access to infrastructure may constrain further development (e.g. absence of financial service at village level) and should be carefully taken into account while dealing with the sustainability of the approach.



Figure 1—Sign with the Water Committee bylaw in Sisse street community

Considerable stride made at Pump Technicians' level: There has been countless training on basic pump maintenance and free toolbox distribution through Bombali district on the last 10 years. However, access to reliable and efficient technicians has never been granted for the communities. The challenge for the project was thus to turn technically skilled technicians into service provider. Most of the Pump Technicians were already in the field of pump mechanics in addition to others activities (blacksmith, teacher, CHW, etc.). They have progressively been selected. They benefited from qualitative theoretical and practical training and adapted equipment (toolbox and bicycle). They also have been involved and progressively empowered to face communities and local authorities, virtually through radiobroadcasting and through field promotion tour. An informal pump technician's network is also emerging with regular bilateral contacts and project motivated experience sharing sessions. Insofar, their respective market remains limited (maximum 34 for one of the Pump Technicians in 2015 and an average of 21 interventions in 2015) in an environment that still need to be strengthened to be favorable (willingness from communities, willingness to promote Pump Technicians at institutional level, etc.). Fortunately and as for communities, a next phase (on water component only) of the project has already been granted which will permit to pursue and strengthen Pump Technicians network.

An effective support from local authorities: As for communities, access to safe water at local authorities is considered as a free service to be provided by central government, falling that, by aid assistance. Project made regular efforts to mobilize local authorities (Section chief and Paramount chief), explain its strategy and inform about its achievements. It also introduced certified Pump Technicians. In return, local authorities seem positive on the project; pushing communities to join preventive maintenance and connecting Communities to Pump Technicians. When globally understanding the project strategy, local authorities showed limitations on capacity to integrate and sustain it, still relying on opportunistic approach toward international organizations. Additionally, even informed, local authorities, as local institution, played globally a limited facilitation role at community level, no intervention in case of mismanagement, no capacity to enforce financial contribution for water maintenance for instance. With limited comprehension of the strategy, it is thus difficult to really assign a role to such players.

3.5. Evaluative questions on Supply chain strengthening

Evaluative questions

- *Retrospective analysis:* Evaluative questions focusing on supply chain strengthening, on both demand and offer generation and sustainability, especially on financial aspects;
- *Prospective analysis:* Capacity to improve the pump mechanic network model, elaborate a standards and replicate it?

Main observations and findings on Health supply chain strengthening

Sustaining public services without endogenous effective strategy and resources remains a brainteaser: While the project of CHW accompanying InterAide draws to an end, a matter still remains unresolved. The national policy has yet to be made official and therefore the CHW do not yet know what will be their future. So far InterAide brought the drugs to PHUs so they could distribute them to CHW. But this supply chain will collapse. There are rumors that DHMTs could take over, but nothing is decided yet, all stakeholders await the release of the National CHW policy.

A chlorine supply chain to be consolidated: The project of setting up HHWT being recent, the supply chain has not had time to consolidate. The main Chlorine provider of Makeni has discontinued the sale of Chlorine. While waiting to find a new

supplier, InterAide supplied directly some of the local retailers. A degree less than the access to spare parts for the preventive maintenance, the supply chain on chlorine still need to be reinforced on wholesale supply, last mile distribution and affordability/profitability along the value chain. .

Main observations and findings on Water supply chain strengthening

Communities highly depending on baseline situation and thus of hand water pump and well lifespan: Some of the observed causes leading to rehabilitation or repair, are the weaknesses of the initial construction⁶ or setting up and bad quality spare parts. It has been thus relevant to promote pump standards. Associated to the certification process in place under Water Directorate authority, early failure should decrease. Nonetheless, standards are difficult to enforce and major players as UNICEF are now implementing plastic pipe pump introducing new variables while communities are still ‘paying’ the cost of bad implementation. Sustainability of demand oriented preventive maintenance framework is conditioned by communities’ willingness to pay which is itself conditioned by trustful qualitative construction and maintenance. In addition, none of the communities seem aware of the cost of the initial construction, technical choices and needs for such construction. By entering the game in the scope of the preventive maintenance, it has been difficult for the project to share its message and to be understood by communities. For the ones that perform regularly preventive maintenance, and even if willingness to pay remains low, they understand the benefit of a no gap access to safe drinking water. But on the opposite, it is clear that some of the communities are playing the game of ‘there will be another project to give a free well’.

A sustainable business for Pump Technicians: The Pump Technicians, while InterAide remains the backbone of the project, are at the cornerstone of the preventive maintenance framework. They progressively became an interlocutor for communities and regularly increase their scope of intervention. According to communities, Pump Technicians are offering a qualitative and transparent service at a fair rate with valuable technical know-how. Pump Technicians are thus technically able to manage most of the maintenance or repair need observed on the field. Some of the Pump Technicians participated to rehabilitation and even able to perform infrastructure work. At business level, they appreciate the seasonality of the maintenance (3 months from September to December) concentrating activities in a short period but are still approximate on their maximum maintenance handling capacity, ideal rate, and capacity to access spare part. Finally, project managed to significantly upgrade their skills at technical level and provide basics on business and marketing. As long as communities will be able to pay, Pump Technicians will be able to perform maintenance progressively enlarging the geographical scope of their activity. Such plan is of course conditioned by the absence of subsidized (unfair) competition: large scale community based pump mechanic training, free water well implementation, etc.

Limited options and chance to sustain quality spare parts supply: The spare part supply chain has been clearly a challenge for the project. To cope with a no spare part situation and focusing first on setting empowered communities and Pump Technicians, the project decided to supply quality spare part by itself, setting a warehouse in the office in Makeni and selling back the spare parts to the Pump Technicians without margin. In parallel, the project tried to progressively structure a supply chain facing major external obstacles

⁶ InterAide is currently pushing for 10 years warranty on the construction part, and at least 6 months warranty on the pump

- *No standards or at least clear technical recommendations at district level:* The diversity of the pump observed and set on the field, from the model itself (India Mark II, India Mark III, Karda, etc.) up to the quality of the pieces (Galvanized, Stainless steel, Plastic, etc.), is a testimony of the variety of actors that implemented waves after waves water access project in the area. It leads to a patchwork of pump specifications that make an onerous list of required spare parts.
- *No clear vision on the spare parts needed at the beginning of the project:* As mentioned above, the pump patchwork observed at district level, associated to the lack of technical history of the pump installed (model and pieces) made spare parts forecast almost impossible.
- *Low initiative of preventive maintenance before InterAide:* Preventive maintenance is a fostering concept among communities. Among practitioners, access to spare parts has more usually been considered as a piece of full pump supply than a supply itself. In consequence, at Bombali district level, you still cannot get reliable supply part. Pump Technicians that were working in that field before InterAide intervention mentioned that spare part are not easily accessible and usually come officially or not through project based initiative.
- *A market that still need to be enhanced:* On a quantitative point of view, the market has not been fully assessed but it should not rise above 15 000 – 20 000 euros per year for the whole districts in the coming years. Large scale suppliers are more interested in larger market opportunities supplying set of pumps than cheaper and less margin spare parts. Small scale supplier (the one identified) are now relying on second hand and even black-market spare parts and does not seem to be structured enough to manage such business.

At project level, many attempts and efforts has been done to tackle the here above obstacles. Water Directorate has been pushed to adopt guidelines. Analysis of water pump database, after 5 years of implementation, is progressively giving findings on the spare part flow. Suppliers in Makeni and Freetown have been exhaustively identified and interviewed. So far, sustainable supply chain solution still need to be reinforced. It seems optimistic to anticipate that a supplier will, by himself, start supplying spare parts in Makeni. And at the meantime, a subsidized may not give more result. An alternative option could be to build a supply chain through Water Directorate and UNICEF.

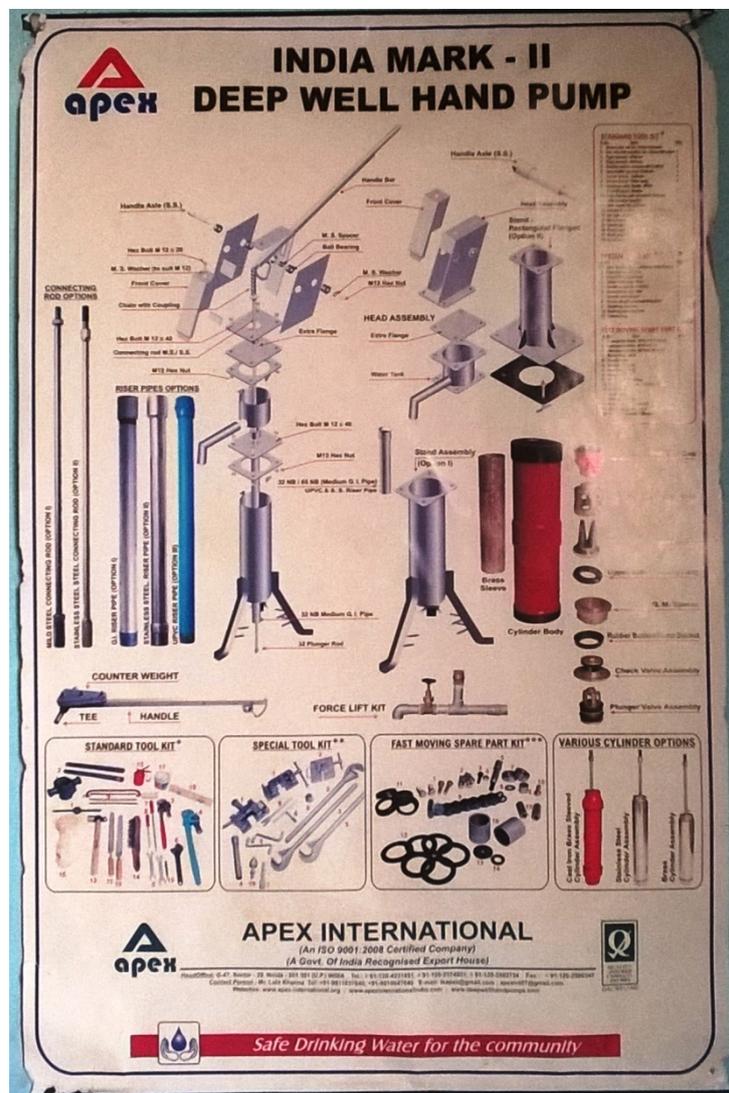


Figure 2 - India Mark II description sheet (from Freetown wholesaler)

3.6. Evaluative questions on Communication & relations

Evaluative questions

- *Retrospective analysis:* Evaluative questions focusing on communication strategy and means with 3 distinctive levels: directly with local and national authorities, directly with others practitioners, directly/indirectly with and through target groups especially CHWs, Water Committees, Pump Technicians;
- *Prospective analysis:* Capacity to benefit from increase responsiveness of local populations to strengthen message on water quality, hygiene and sanitation? If so, how?

A one way and plentiful communication that needs to be diversified and sometimes better targeted: The preventive maintenance logic of intervention is heavy. It has progressively been clarified and adapted to its current format. The project team used efficient and effective communication materials adapted to local comprehension. So, it could easily be observed that the basic message on importance to do maintenance, to drink safe water, to get a dedicated committee to deal with it and dedicated Pump Technician has been understood and shared among community people. Insofar, the communication suffered from a one way direct communication: field facilitator towards communities. It worked well with some communities and still struggled for some others. The radiobroadcast eases the diversification as the promotion tour done by the Pump Technician. More problematic, some key message seems misunderstood at Water Committee level. While the 60 000 Le

workmanship for the Pump Technicians seems totally understood and accepted, the link between technical intervention and contribution (which amount for which intervention, etc.) and important messages (e.g. role of the pump care taker and importance of greasing the chain every two weeks) may need to be refreshed. This observation has been done a limited sample, so it has to be assessed at a larger scale.

At health component, the Field Facilitator use many communication media with the communities but despite this, when we visited fields the information seemed often to be transmitted during group meetings conducted by the leaders of the village with a feeling of being under pressure for the other members. Maybe small focus groups have been done with particular attention to make speech free, but the evaluation mission didn't permit to verify it. It is difficult to ascertain what information each family gets, it is often the same people who are speaking and the information is rather getting worse despite the methodological efforts of participation. For example there is a misunderstanding from the villagers on the remuneration of CHW. The confusion increases with the difference in treatment between the CHW accompanied by InterAide and those by WH. Initially compensation should serve to cover the costs of transportation of the monthly meetings. But with the increase in compensation by WH, compensation makes the other villagers think that CHW receive a salary. Thus InterAide CHWs are not always helped by the community during the rainy season when the field works increase. The other villagers, although they recognize the importance of the work of CHW on their children's health are not going to help in the fields thinking the pay compensates the loss. It should be interesting to find more participatory methodology avoiding the stranglehold of leaders and men on the discussion, as to take more time with small groups (women, men, young, olds, leaders, beneficiaries...) and to organize collective meetings with representatives of each group. It's questioning the training about participatory methodologies of Field Facilitator and the time dedicated to training/sensitization sessions in communities.

Too small to play with the majors? :It seems that InterAide suffer from a lack of consideration from World Hope and UNICEF , even though it made regular efforts to attend to coordination meeting and to share information. It seems to be a combination of two elements:

- *Relatively small size of the health component* with limited outputs compare to organizations as UNICEF or WH did not take account of the project.
- *Conservative strategy*, covering only one chiefdom from the beginning, taking time to consolidate its action and achieving qualitative outputs which in a way an opposite approach to massive CHW campaign.

Non-targeted enough communication strategy towards district and national authorities (and practitioners): Sustainability of the project partly depends on upstream changes in behavior and structural decisions at practitioners' level. By enhancing coordination among actors at district level, the project managed to be recognized as a technical reliable partner, easing for instance, the launch of the district water laboratory. Project has even been active in the field of knowledge management by publishing technical guidelines⁷.The project tried to be active on both bilateral and multilateral level at both district and national level..

⁷ See <http://www.washlearningsl.org/> or <http://interaide.org/watsan/sl/>

4. Discussion on results achievements, effects and impacts

4.1. Achievements of expected Results

Main causes of child mortality durably controlled through community based and health actors efficient mobilization and community total sanitation

Relevancy	<p>Despite an unstable environment InterAide shown a strong ability to readjust its project. Inter Aide has adapted its projects to both the needs of beneficiaries, the evolving local and national policies. InterAide was also able to maintain its position on the vision of the CHW (drugs distribution and modest incentive) when it seemed important. It is also important to note that InterAide agreed to extend an experiment from the time where interest has arisen, despite the lack of time.</p>
Efficiency	<p>The presence of Field Facilitators 5 days a week in villages has resulted in a rapid overcoming of results in terms of raising awareness about malaria and childhood diarrhea which was a very efficient intervention logic.</p> <p>The CHW's development logic was too weak and disrupted by partners' misunderstanding, which resulted in a strong delay in the development of CHW and setting the InterAide gap as key player in the CHW project; this is due to a lack of communication and an absence of clear partnership policy.</p> <p>In a very short time the HHWT was effective and could have had much more success if the project had been involved from the beginning as a following of the CLTS.</p>
Viability/Sustainability	<p>The sustainability of chlorination and CHW drugs distribution is dependent to the building of a strong supply chain. Which is not impossible to make but time were missing and national policy not yet decided.</p> <p>CLTS approach didn't show is sustainability enough due to a lack of following and technical support.</p> <p>The Water Committee will be a strong base to get sustainable HHWT but many villagers consider chlorination only as a first step before building a well. The multiplicity of NGO giving wells in many villages since Ebola breaks the dynamic of the project and dulls the motivation of villagers to continue the HHWT.</p> <p>To keep behavioral change in Hand Washing or in latrines using some villages are sending people to paramount chief to pay fines. But is that people will go till paramount chief for that? It's depending on chief's strength and his will.</p>
Impact	<p>A clear short-term effect is the reduction of child mortality and access to quality hygienic latrines. Ebola has also had a significant impact on the washing of hands. Chlorination of water has the advantage of having a direct and rapid impact on the practice of villagers and health.</p> <p>Consequently of the drop of U5MR, the number of children could increase and have an long term impact. It would interesting to build a project to sensitize communities on family planning if the Government wants to avoid a demographic crisis in next years. We observed in PHU a small beginning of family planning implemented by UNFPA but it</p>

should be developed and supported by CHW to be efficient.

Water supply management and maintenance services based on sustainable public private partnerships organized

Relevance	Aid assistance gave access to safe drinking water to a significant and increasing number of communities in Bombali District. Following massive infrastructure intervention, it thus highly relevant to anticipate preliminary basis of a public private partnership to manage water supply and maintenance. Despite the dramatic Ebola crisis, the preventive maintenance framework is still working, demand increasing, Pump technicians deeply involved and authorities and peers closely following the project which clearly suggests that enabling environment reached a maturity threshold and intervention started at an opportune moment.
Efficiency	The initially challenges to concomitantly generate demand by raising ownership and willingness to pay for a water service at community level and foster service offer by empowering pump technicians have been observed. 25% of the involved communities managed to raise contribution to pay for the service and business is progressively increasing for Pump Technicians with a clear willingness to pursue it with or without project support. Paradoxically, while efficiently working at field level, the main obstacles of the logic of intervention are the enabling environment with, despite all-out efforts, low institutional support at upstream level and still limited access to quality spare parts at downstream level.
Effectiveness	While the logic of intervention at community level seems really effective, the level of investment on institutional coordination and lobbying seems more questionable. However, without a clear baseline situation and capacity assess impact of Ebola crisis, it is, of course, difficult to objectively measure the effectiveness of such activities.
Viability/Sustainability	As the water component of the project already managed to get fund for a next phase, assessing sustainability can only been done theoretically, as activities will not stop and thus last months of intervention have not be focusing on pulling out and handing over. However, it can clearly be claimed that the main externalities that may negatively impact project sustainability are by priority order (i) the lack of coordination and framework of intervention among practitioners spreading over gift approach, pump mechanics training with maintenance strategy, new and/or bad quality pumping devices, etc.; (ii) the absence of adapted, qualitative, locally available spare parts.
Impact	<p><u>Short term impact:</u> Communities that get an intervention from the Pump Mechanics have access to safe quality water, save time fetching water from swamp and thus reducing risk factor on water linked infection. More reasonably impact of the project can be expected at local economic development showing a way to create local viable economic activities, providing or reinforcing local entrepreneurs.</p> <p><u>Long term expectable impact:</u></p>

	<ul style="list-style-type: none"> · Ownership and contribution process on other public services (energy, facilities) in the communities where preventive maintenance is promoted; · Mimetism from reluctant communities managed to scale the initiative up to significant level (national?) with Water Committee and Pump Mechanics respective networks · Increase of demography in rural areas with an urgent needs on family planning, contraception sensitization
--	--

4.2. Overall and specific objectives

Specific objective: Improved family and child health through enhanced capacities of the rural communities and institutions of Bombali District to manage and sustain their access to health services, sanitation and safe water.

At water component level, the project unquestionably managed to raise ownership on collective infrastructure and empowerment on management at community level. Contributions done at community level objectively and undoubtedly testify of their willingness to progressively switch from an aid oriented framework to a locally managed one to sustain access to safe water. Opportunistic logic will continue and local conflict will regularly wane dynamic. Though; qualitative service offer will still be available, a supply chain with the increase of the demand should reach a tipping point to raise better interest from suppliers. It should thus contribute to the continuous improvement of quality of water supply maintenance service.

At Health component level, the project has clearly improved the access to basic drugs, basic knowledge on diseases and increases the link between PHU and communities. Women are going more easily to PHU for delivery and the use of medicines to fight fever and diarrhea increase. At local level the coordination among Health actors improved. At District level there is still a lack of coordination among PHU and DHMT and InterAide could have done more activities to support District level coordination. But Ebola crisis created new stakes and the arrival of many international NGOs has complicated the task of coordination at the district level. The U5MR decreases due to the sensitization sessions, latrines building and water treatment.

Overall objective 1: Contribute towards health improvement, poverty reduction, and sustainable development through the achievement of the MDGs in Sierra Leone in coherence with the NHSSP 2010-2015

Overall objective 2: Contribute to improved economic situation of the rural poor through a better health and safer environment

The bases have been set: skills of key players have been enhanced, communities have been sensitized, practically involved even requested to financially contribute. First out of project initiative has been taken (pump technicians promoting their service for instance) and policies at national level are promising. The project clearly contributes to set sustainable access, through local value chain, to services that were non-continuously delivered through aid assistance. So in way, it should durably improve economic situation of the rural poor and thus participate to the achievement of the MDGs in Sierra Leone. More realistically, it is obvious that project suffers from deficient environment and inconsistent development aid

supports. Those external factors should be addressed step by step and bricks by bricks to attain sustainable public-private service offer in rural areas.

4.3. Consistency to set two distinctive components versus and integrated one

The choice to set the project into two distinctive components is inherent of the project design. It has antecedents in the experience of InterAide in Madagascar for the Health component and North Bombali district for the Water component. Implementing in parallel activities to enhance access to safe water and activities to enhance access to basic health services contribute to a joint effort to improve the living conditions of the local communities. With on common denominator; the communities, and on common objective, would have it been more relevant, efficient, cost effective and sustainable to work under a unique framework?

Probably logistically more efficient and cost effective to implement the project as an integrated one: By doubling the team, it is off course, theoretically two times more expensive to reach communities on both topics (water and health). However, geographical target are different, so such assertion can only be right for roughly 50%⁸ of the area of intervention. In addition, technical skills required to implement both components does need dedicated technical team meaning that cost saving could have been expected only at field facilitator level.

Yet indubitably less impactful on communication at field level: Findings highlighted that field facilitator managed to implement large scale communities' awareness, with a fair comprehension on basic message and a weaker one when going into technical and too detailed message. In consequence, risks of substantial on-line losses may have been higher with a unique field facilitator dedicated to both water and health topics.

And clearly with a higher risk of misunderstanding at community level: Health and water component are both focusing on setting sustainable chain services and supply chain at rural communities level. However, challenges are different. Water component is relying on a private based approach trying to set small scale business by jointly working on offer, demand and enabling environment. At Health component level, the approach is more focus on public service development, where sustainability inherently relies on institutional actors. At communities' level, mixing the message may have been counter-productive and even destructive for the maintenance service. Nonetheless, at office level, a better integration of cross-cutting criteria for the community selection may have ease links and bridges among components as it has been done on HHWT selection.

But still questionable at practitioners' level: As mentioned crosswise in the findings, communication and lobbying strategy toward practitioners could have been better managed/anticipated, and thus more easily managed with a unique bridgehead.

And finally better adapted to end of project strategy with the merge of north and south Bombali water project and the end of the health component.

⁸ 3 chiefdoms on health, 7 on Water so roughly 50% of the area of intervention

5. Recommendations

5.1. Water component level

<p>Elaborate a pull-out strategy to push communities, Pump Technicians and Local authorities in the front line and ease further horizontal discussion, to anticipate progressive InterAide withdraw from day to day management and strengthen the self-sufficiency of the dynamic and raise innovation at local level.</p>	
<p><i>Ease horizontal communication among communities (and Pump Technicians)</i></p>	<ul style="list-style-type: none"> -Promote community to community experience sharing in addition to direct project awareness to progressively withdraw project from the frontline and ease Water Committee to Water Committee contributions for preventive maintenance; -Assess and ease companion approach among positive and negative communities -Concentrate projects efforts on the most promising communities and using them as flagship of the preventive maintenance during communication campaign (radiobroadcast of the positive experience, short video film broadcasted in other communities, etc.); -Raise innovations in preventive maintenance strategy by (i) collecting alternatives options that has been developed in communities (e.g. water paid by bucket, contribution collected during dry season, etc.) and by the Pump Technicians; (ii) putting into discussion prospective topics (e.g access to safe banking system, access to spare parts) (-Continue and even enlarge to the entire district, the pump technicians discussion group)
<p><i>Ease field involvement of local authorities</i></p>	<p>Push and even ease local authorities (mainly Water Directorate) to engage in technical advisory and access to basic information for communities, for instance by setting up a phone hotline (choice of the devices, rate of the spare parts, etc.), ensuring presence on the market to share basic information, facilitating management of litigious community cases. As for community to community experience sharing, the objective is to progressively set the project as back up promoting sustainable actors or institutions in the frontline. It could also be done among local practitioners by supporting a local organization or spin off from InterAide.</p>
<p><i>Elaborate a light business & marketing strategy with the Pump technicians</i></p>	<ul style="list-style-type: none"> -Develop basics on business management for Pump Technicians, by at least (i) elaborating a yearly activity and budget forecast, (ii) developing a comparable to Water Committee contribution process to initiate individual savings (e.g. 10% of the 60 000 Le saved in a cash box to buy for instance spare parts in advance), (iii) regularly following up activities in pump technicians discussion group; -Elaborate communication strategy that could be handed over and afford by the Pump Technicians: elaborate message, means of communication, and targeted group.

	<p>Elaborate a lobbying strategy towards national authorities and peers to avoid dispersion and concentrate efforts of the main challenges of the value chain: (i) to adopt, at upstream level, some clear and effectively implemented standards, to reduce risk of early failure and reduce the diversity of the spare parts needed, (ii) to endorse at downstream and field level, a clear maintenance policy.</p>
<p><i>Produce and share technical knowledge</i></p>	<p>-Conduct a case study analysis to assess the final cost for the communities of a non-standardized water pump implementation To do so, a deep analysis of the database could be done and some relevant example (positive and negative) should be described to compare the cost of bad/quality first implementation, cost of low/no maintenance compare to regular one. Such initiative should be collective and delivered at national level.</p> <p>-Lead a working group to elaborate water pump technical requirements (that may lead to national standards)</p>
<p><i>Push for a water coalition at national level</i></p>	<p>To ease the here above recommendations, and to globally be better listened by major institutions and actors, InterAide should push for a better organized water cluster by setting a water coalition joining efforts and raising voice of all the ‘water’ operators (Implementing partners of UNICEF, other NGOs, companies) in Sierra Leone. In practice, it may start by technical experience sharing, regular bilateral and multilateral field visits among operators, to share at least best and worst practices and ease convergent positioning on technical matters.</p>
	<p>Enhance supply chain to sustain the first achievements and find viable solution for the spare part supply by, in order of priority: (i) making spare part easily available at retailer level in Makeni, (ii) widely sharing equipment and spare parts fares to avoid opportunistic approach from retailers, (iii) At least ensuring a post project spare parts stock to avoid end of project collapse</p>
<p><i>Easing access to complementary market for pump technicians</i></p>	<p>The current preventive maintenance market is shrink and still need to be expanded to be significantly viable and sustainable. Market may increase but the dynamic will deeply depend of the capacity of the communities to raise contribution. To avoid a domino effect and collapse of the market, InterAide should try to diversify Pump Technicians market by better and more involving them in well construction and/or any other complementary market. It could be done by linking certified Pump Technicians, with UNICEF Implementing partners, drilling companies, Sawalco and others technical players. Such approach may also ease preventive maintenance enrolment by early identification of communities.</p>
<p><i>Providing a spare part starting stock to retailers in Makeni</i></p>	<p>With the continuation of the project on water component, InterAide should continue wholesale buying spare parts in Freetown but should stop storing and retailing spare parts to the Pump Technicians to progressively immerge them in real market conditions. Then two (complementary?) options should be assessed to identify proactive retailers at Makeni level: (i) relying on current hardware retailers (3-4 shops) that already provide pump kit and possibly spare parts, (ii) trying to raise interest among others shopkeepers that may interested to develop a profitable market. The market remains limited so far and interest form the large retailers still need to effectively raised, while relying on a new player is still at risk.</p>
<p><i>Raise on awareness on quality and cost of qualitative equipment</i></p>	<p>In the absence of clear water directorate guidelines on equipment and quality requirement, InterAide should ease community and pump technicians’ access on equipment quality and fare.</p>

	Means of communication may be various (leaflet, access to hotline, radiobroadcast, etc.) and adapted to the local audience. The main objective is to avoid bad quality spare parts dissemination and prohibitive cost, even from actors out of the preventive maintenance scheme.
<i>Anticipate the worst end of project scenario</i>	Conditions are clearly not fulfilled to anticipate, even in 3 years, a sustainable spare parts supply chain. The key chain link, at Makeni level, still need to be validated. The context and influence of others water actors is still unlikely to improve the situation. In consequence, the worst end of project scenario should not be avoided and a coping solution has to be found to ease post project access to spare parts for the Pump Technicians. To do so, a Pump Technicians self-manage stock of spare parts should be set up, sooner enough to evaluate their management, replenishment and financial capacities.

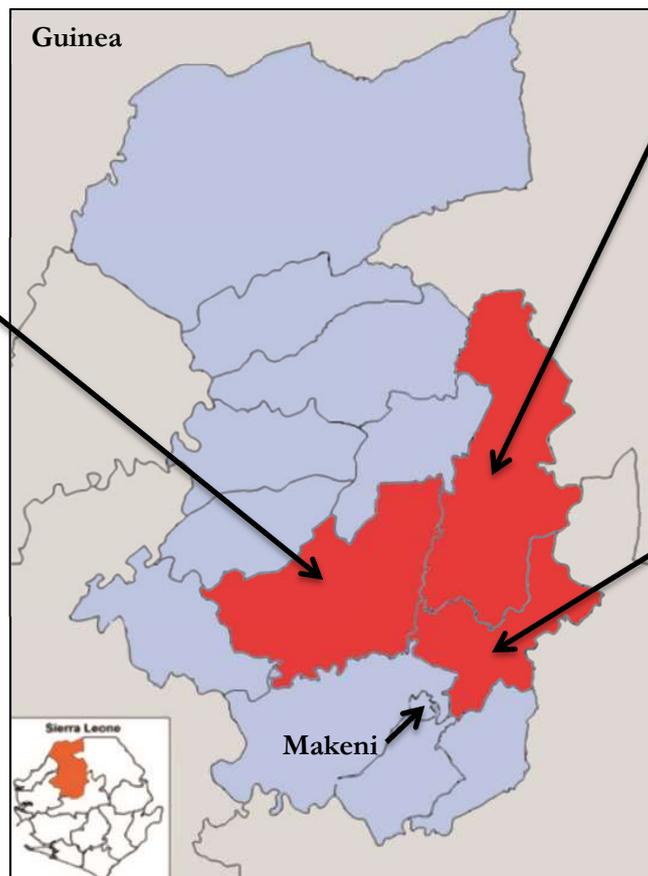
5.2. Health component level

Define a strategy to promote the sustainability of health activities in the three chiefdoms	
<i>Continuing the activities related to HHWT and reinforcing the chlorine supply chain</i>	In view of the needs and satisfaction of the villagers following the chlorination activities it would be much more beneficial to continue the momentum built up since late 2015. This dynamic training activity doesn't demand a lot of resources and allows many small, isolated communities to access drinking water. If the project component Water could resume this activity by extending its sphere of action to the community of less than 150 inhabitants by offering them to put in place a process of HHWT. Of course it will imply consolidating the supply chain of the chlorine.
<i>Capitalize activities within the CLTS and CHWs</i>	InterAide has adapted the CLTS method by freeing methodological constraints. It would be interesting to capitalize on the relationship between the construction of latrines slab and CLTS. Highlighting the importance of both the participation of the villagers but also outside technical support that may be relevant in particular in terms of sustainability. It was observed the relevance of InterAide focus on the distribution of medicines by CHWs. It would be interesting to capitalize on the experience and use it for lobbying UNICEF, WH and DHMT to influence national policy of CHW.

Annex A – Areas of Intervention

Health Component

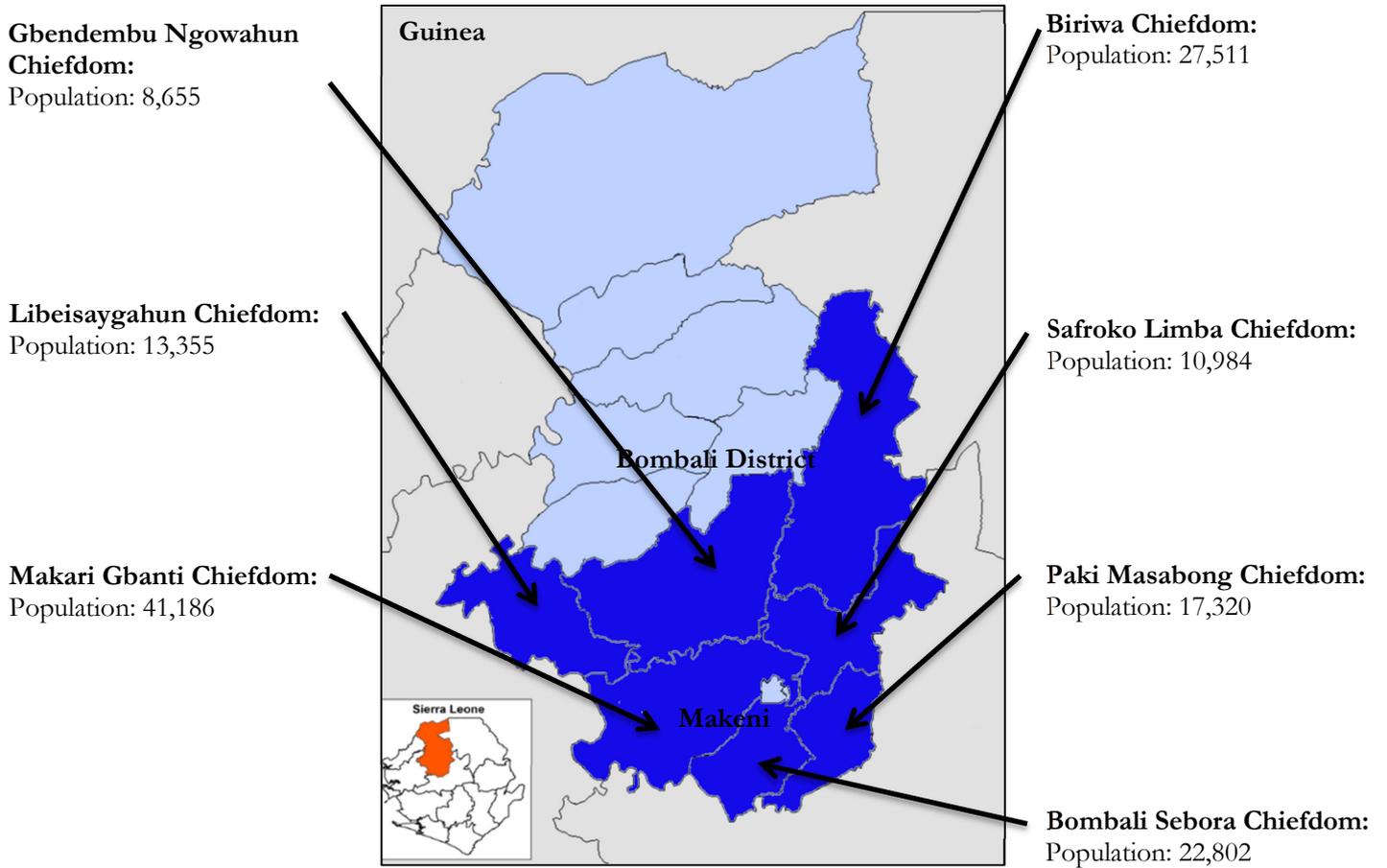
Gbendembu Ngowahun Chiefdom:
4 PHU: Kortohun, Mahari, Tambiama, Madina Loko.
110 communities
Population: 8,655
CHW working with IA: 62



Biriwa Chiefdom:
10 PHU (underlined: the 6 PHU targeted by the project):
Kanikay, Karina, Manjoro, Kagbonkona, Kamasikie, Budandein, Kagbaneh, Kamabai, Kayonkoro, Kayainkisa.
246 communities
Population: 27,511

Safroko Limba Chiefdom:
5 PHU: Maselleh, Kagbo, Kayassie, Masongbo, Kabonka.
62 communities
Population: 10,984
CHW working with IA: 0

Water component



Annex B – Interviews list

Interviews list on Health Component

TARGETED GROUPS	DISCRIMINANT VARIABLES	SAMPLE	
IA Team on Health Component	Project Manager, arrived during Ebola crisis	10	Imma CALM
	Operation Officer started as Field Facilitator		Kombu JAMES
	Watsan technician started as Field Facilitator		Alusine SHERIFF
	CHW Officer started as Field Facilitator		John FORNAH
	Team Leader of the Field Facilitator		Baba WAGAY
			Mohamed SAWANNEH
	Field Facilitator started among 2014 and 2015		Ibrahim BANGURA
	Ousman WAGAY		
	Maya		
	Anmarie		
Local Communities (Focus Group)	Sensibilization session	3	Kamonkoi -Safroko Limba Massongbo - Safroko Limba Kahiassie - Safroko Limba
	HHWT + IA CHW	3	N'Gohun - Gbendembu Malai - Gbendembu Yohun - Gbendembu
	Slab latrines with IA CHW	1	Mabombor - Gbendembu Mabombor - Gbendembu
CHW	Trained by IA and receiving incentive from IA	7	Mohamed Kamara Mohamed Koroma Santivi M'kabo Prime Khanu Amadu Sesay Alamny Conthe Salay Kamara
	Trained by IA but receiving Incentive from WH	2	Foday Kamara Sumaela M'kagbo
Institutionals	District Level	1	Dr Oussayo Brahima Kalara - District Medical Officer
	Chiefdom level	1	Abdul Karim Kamar (AKK) - Chiefdom Health Officer
	Nurse in PHU	4	Abibatsu Getori - Kahassie PHU Kadiatu Kanu - Tambiama PHU Kadiatu Turay - Mahari PHU Paul Kanu - Nurse assistant at Mahari PHU
	Section Chief	1	Foday Kamara - chief of Wengay community
NGO and technical partner	involved in Health project with Interaide	4	World Hope - Mr Brahima CHW coordinator MADAM - Aboubacar Kamar (Finance Officer), Johanes Kuruma (Program Officer) and Mohamed Conthe (Director)
		1	Papani shop - chlorine reseller at Gbendembu
		38	

Interviews list on Water Component

TARGETED GROUPS	DISCRIMINANT VARIABLES	SAMPLE		
IA Team on water component			Geoffroy, Simeone, Kelvin	
Local Communities with Hand Pump Well (Focus Group)	Mobilized but refused to join InterAide hand pump maintenance framework considered as NOT TRAINED	2	Kassasie - Biriwa Chiefdom Sawalie - Biriwa Chiefdom	
	Mobilized and trained to set a Water Committee but did not (yet) requested for repair (1st shot) or maintenance on their hand pump considered as TRAINED & NOT ACTIVE	4	Mile Fourteen - Safroko Limba Chiefdom Stocco - Makeni Town Makonde 1 - Makari Gbanti Kargbo - Safroko Limba (Mismanagement)	
	Mobilized and trained to set a Water Committee, and did request and paid for repair (1st shot) and did not or stop perform maintenance yet considered as TRAINED & LIGHTLY ACTIVE	2	Mattekay 1 - Makari Gbanti Kalangba - Gbendembu Ngowahun	
	Mobilized and trained to set a Water Committee, and did request and paid for an intervention and did perform repair (1st shot), maintenance, even rehabilitation every year considered as TRAINED & ACTIVE	4	Kamaron - Safroko Limba Chiefdom Masongbo (Lunsaroad) - Makari Gbanti Binkolo - Safroko Limba (use to pay per bucket) Timbo - Makeni Town (try to set per bucket rate)	
	Pump Technicians (Individual Interview)	Recently joining the pool of pump technicians	3	Benito CONTEH Saidu FOFANAH Abdul FORNAH
		Early joining the pool of pump technicians	2	Osman KAMARA NORTA (Chairman of PI) Hassan SESAY
Institutionals	Distrcit Authorities	1	Franck Kanu, Development & Planning district officer	
	Water Directorate	1	Touré, District Water Engeneer	
	Paramount Chief / Section Chief	1	Speaker of the Paramount Chief in Safroko Limba	
		1	Section Chief of Rosint in Safroko Limba	
Peers and technical actors	Spare parts suppliers	4	Makeni shops	
		1	Freetown	