

**Year: 2016-2017** 

<b>Project Number and Title:</b>	PROJEC	T	AMOUN	T	RECIPIENT	
#58 _ Title: Strengthening the	START DA	$TE^1$ :	ALLOC	ATED by	ORGANIZATION	
Ebola response mechanisms in high	01-05-20	16	MPTF		UNDP	
risk areas of Nzerekore region			Total	\$1,000,000	UNDI	
Project ID:			\$198,395			
00101174, 00101175, 00101176			,	NERC	IMPLEMENTING	
(Gateway ID)			\$396,970	) – ALIMA	PARTNER(S):	
Project Focal Point:	EXTENSI	ON	FINANC	CIAL	101174 - IFRC	
Name:	DATE:		COMMI	TMENTS	101175 - ALIMA	
<b>Lionel Laurens</b>	26-01-20	17		Φ.Ο.	1011/3 - ALINIA	
Marc Wajnsztok	(for ALIMA	only)		\$ 0	101176 - NERC	
E-mail: marc.wajnsztok@undp.org						
lionel.laurens@undp.org						
Strategic Objective (STEPP)	PROJECT	ED	EXPENI	DITURES		
SO 1 MCA2	END DATE:		as of 30/0			
SO 2 MCA3	31/01/2017 (IFRC & NERC) 30/06/2017 (for ALIMA only)			\$ 190 994		
SO 5 MCA13				(IFRC)		
<b>Recovery Strategic Objectives</b>				\$ 396 863.71		
RSO# - Description N/A				(ALIMA)		
<b>Mission Critical Action</b>				\$ 404 576.53		
SO 1 MCA2: Safe and Dignified				(NERC)		
burials			TOTAL			
SO 2 MCA3: Care for persons with			EXPEND	DITURES		
Ebola and infection control			\$ 992 434	4.24		
SO 5 MCA13: Multi-faceted						
preparedness						
Location:		Sub-National Coverage Areas:				
GUINEA		Nzerekore Region (Forest Region)				
Donart Cubmitted by		Prefectures of Nzerekore and Macenta				
Report Submitted by:			Report Cleared by:			
Name: Marc Wajnsztok     Title: Fleele Origin Administration			Name: Lionel Laurens, Country Director     Date of Submission: 22/12/2017			
<ul> <li>Title: Ebola Crisis Advisor</li> <li>Date of Submission: 28/04/2017</li> </ul>			<ul> <li>Date of Submission: 22/12/2017</li> <li>Participating Organization (Lead): UNDP</li> </ul>			
o Participating Organization (Lead): UNDP			Email address: lionel.laurens@undp.org			

<sup>&</sup>lt;sup>1</sup> The date project funds were first transferred.



Year: 2016-2017

o Email address: marc.wajnsztok@unp.org

OUTPUT INDICATORS					
Indicator	Geographi c Area	Projected Target (as per results matrix)	Quantitative results for the reporting period	Cumulative results since project commencement (quantitative)	Delivery Rate (cumulative % of projected total) as of date
Descripti	ion of the quai	ntifiable indica	tor as set out in	the approved proje	ect proposal
MCA 2 Safe and dign	ified burials				
% expected death notified in the targeted prefecture.	Nzerekore, Macenta,	65 %	19 SDBs	19 SDBs <sup>2</sup> 83 Swabs <sup>3</sup>	100% (of notified deaths) 5,6% (out of 1406 swabs expected, only
					83 were conducted)
Nb of Community leaders trained on Hygiene promotion and Safe and dignified burial.	Nzerekore, Macenta,	420	448	4484	106,7%
% of Communities with prepositioning of community protection kits.	Nzerekore, Macenta,	0	19 villages from Koropara's district	19 villages from Koropara's district	100 %

MCA 3 Care for Persons with Ebola and infection control

Related to the output indicators to be achieved by Alima see NCE submitted to MPTF (Annex 1)

<sup>&</sup>lt;sup>2</sup> There was a serious reluctance on the part of the community to notify community deaths. This explains the low rate of Safe and Dignified Burials (SDBs) and Rapid Diagnosis Tests (RDTs) achieved by the CRG teams

<sup>&</sup>lt;sup>3</sup> Only 83 swabs out of 1 406 expected for the same reason as above.

<sup>&</sup>lt;sup>4</sup> Nzérékoré 173, Macenta 275



Year:	2016	2017
y ear:	<i>2</i> 010-	ZU 1 /

			1. 2010-2017		
Number of trainers trained, on tools and innovations as part of the project, to disseminate the knowledge across the country	Nzerekore,	10	0	0	0%
Number of staff directly trained regarding tools and innovations within N'Zérékoré region (for the indirect benefit of 1 097 095 habitants in the region)	Nzerekore, Lola, Beyla, Yomou	20	23	23	115%
Number of care units identified responding to the medical standards of medical care in the CTEPI of Nzérékoré	Nzerekore	4	3	3	75 %
Number of manual/protocol on the technical potential for infection reduction and control written		1	1	1	100 %
Number of innovations and associated procedures identified and realized in order to rationalize the waste management in the Nzérékoré CTEPI	Nzerekore,	2	2	2	100 %



Year: 2016-2017

			2010 2017		
Number of decontamination units (showers) with means for disinfection control available in the CTEPI of Nzérékoré	Nzerekore,	1	8	8	800 %
Number of eprep 10 cases EVD available in the CTEPI of Nzérékoré		1	1	1	100%
Number of support tools needed for the care model extension created		19	19	19	100%
MCA 13 Surveillance and response mechanisms functioning properly per prefecture	Nzerekore, Macenta, Guéckédou Lola, Yomou	5	33 CTEPIs + 1 DPS countrywide	34	660 %
	EFFECT INI	OICATORS (i	f available for tl	he reporting perio	<b>d</b> )
MCA 2 Improvement % of death notifications through the engagement of community leaders trained and equipped to provide appropriate management of community deaths.	Nzerekore and Macenta	80%	85%	85%	85 %
MCA 3 Number of Model CTEPI integrating a better	Nzerekore	1	1	1	100 %



Year: 2016-2017

medical care, biosecurity and nnovative methods for the care of viral hemorrhagic fever cases					
MCA 13	Nzerekore,	5	33 CTEPIs +	34	
Surveillance and	Macenta,		1 DPS		660 %
response	Guéckédou		countrywide		
mechanisms	, Lola,		(see list		
functioning properly per prefecture	Yomou		below)		

List of prefectures where surveillance and response mechanisms are functioning properly thanks to the support provided to the CTEPIs/DPS.

Kindia, Mamou, Telemele, Pita, Labé, Dalaba, Koubia, Lélouma, Tougué, Mali, Koundara, Gaoual, Dinguiraye, Dabola, Kankan, Mandiana, Kérouané, Koroussa, Forecariah, Coyah, Siguiri, Faranah, Kissidougou, Beyla, Lola, Yomou, Nzerekoré, Macenta, Dubreka, Boffa, Boke, Fria, Guekedou, Nongo.

### **EXECUTIVE SUMMARY**

Key achievements of the programme during the reporting period can be summarized as follows:

### 1) Through IFRC:

Key community leaders' knowledge and skills on Safe and dignified Burial (SDB) were strengthened and the notification and the safe and dignified burial of community deaths were carried out by the community leaders with the supervision of Red Cross team.

- **a.** 100% of deaths notified. No re-emergence of Ebola outbreak during the period covered by the project.
- **b.** 5,6% of swabs conducted (out of 1406 swabs expected, only 83 were conducted)

### 2) Through ALIMA:

The main results achieved include the following:

- **a.** Twenty-Three (23) staff directly trained regarding tools and innovations within N'Zérékoré region to upgrade participants on the management of EVD.
- **b.** Three care units responding to the medical standards of medical care established in the CTEPI of Nzérékoré.



- (i) the triage area has been reconfigured, providing much more security for the caregiver and the patient;
- (ii) at the level of hospitalization, the circuit has been completely revised and many areas equipped with plexiglass for better monitoring activities and a constant proximity in care;
- (iii) a mobile intensive care unit capable of handling any type of infectious disease with high epidemic potential has been designed with the partnership of a company specialized in nuclear, radioactive and biological risks (NRBC).
- **c.** One (1) manual/protocol on the technical potential for infection reduction and control written.
- **d.** Two (2) innovations and associated procedures identified and realized in order to rationalize the waste management in the CTEPI.
- **e.** Eight (8) decontamination units (showers) with means for disinfection control installed in the CTEPI
- **f.** One (1) contingency stock able to take care of 10 patients for a period of at least 10 days is positioned in the CTEPI
- **g.** Nineteen (19) support tools needed for the care model extension created

### 3) Through the NERC:

- **a.** 207 families and 1,656 people received non-food items in addition to WFP food security during the micro cerclage
- **b.** Support the cost of a 16-member medical team deployed to break the transmission chain and provide adequate health care to populations affected by micro-cerclage activities
- **c.** Payment of incentives to 272 medical staff deployed in the 34 CTEPI constructed by the NERC countrywide from August 01, 2016 to December 31, 2016.



Year: 2016-2017

#### **Current Situation and Trend**

The Nzérékoré region, through its common borders with Ivory Coast, Liberia, Sierra Leone and its climate, is particularly exposed to epidemics risks. The region drains mass population flows seeking for health care services. ALIMA aimed at strengthening the health system and especially Guinean authorities' response capacities, through capitalization of experiences and good practices learned during the previous EVD outbreak. It has therefore developed a "model" structure, the CTEPI, which can provide adequate and safe care to patients affected by infectious disease with epidemic potential (such as measles, meningitis, yellow fever or cholera). ALIMA, in collaboration with national authorities, upgraded this CTEPI into a reference structure in Guinea for hemorrhagic viral fever care but also into a place of medical and paramedical staffs training.

As part of the project, the rehabilitation process and the activities carried out to the CTEPI unit in Nzérékoré are operational with units of care that meet high medical and biosafety standards. It allows the structure to provide secure care to patients with a high level of protection to prevent infectious transmission and therefore have a positive impact on health indicators as mortality. In fact, an incinerator adapted to waste management in hemorrhagic viral fevers context has been deployed as well as decontamination showers to reinforce patients' and staff safety. Also, a contingency stock has been provided with the capacity to care 10 patients for 10 days. Moreover, the staff dedicated to the CTEPI has been trained in the region with theoretical and simulation exercises on health care delivery regarding infectious diseases with an epidemic potential. Finally, an individual isolation unit has been designed to improve the healthcare strategy to adopt towards patients.

#### A.- Narrative section

#### a. Key Achievements:

#### Component 1: Safe and Dignified Burials (SDB) with IFRC

During the resurgence of the Ebola virus disease (EVD) epidemic, teams involved on funerals and secured burials encountered several difficulties related to the reluctance of communities to notify community deaths and report alerts. To face this challenge, one of the strategies adopted was to involve communities in the process of early-warning and associate them to the safe and dignified burials (SDB) process to foster ownership and build confidence.

This was done through the training, in two phases, of 448 Body washers of which 170 women and 278 men; and 79 Mediators of which 25 women and 54 men, in Macenta and Nzerekore prefectures. The main topics covered by the training included: the presentation of the ABC approach<sup>5</sup>; working conditions and Terms of reference for body washers and Community mediators<sup>6</sup>; communication techniques and interaction with the community; description of the key messages in the context of Ebola, funerals SBD and simulation exercise; and the undressing, waste management, funeral rites and SDB.

<sup>&</sup>lt;sup>5</sup> The ABC Approach or the Community led Bio-Security approach consists of hygiene promotion and body management by the communities themselves

<sup>&</sup>lt;sup>6</sup> The role of Community mediators is to facilitate the contact between the Red Cross Volunteers and the community



Year: 2016-2017

The training was successful in that it helped remove the doubts and suspicions of the communities, improved their perception regarding the tools used during the SDB and finally encouraged ownership and involvement in the SDB process. After the training, participants notified a minimum of 15 deaths per month. The number of deaths initially targeted was 30 deaths/month.

The training was followed by a prepositioning of protection material in the villages of the participants.

## Component 2: Care for Persons with Ebola and infection control with ALIMA

After the approval by the MPTF of ALIMA's request for a No Cost Extension (see the NCE request in Annex 1), ALIMA ran this project to set up a CTEPI in Nzérékoré whose goal is to ensure safety for patients and caregivers but also guarantee a safe and quality of care in case of hemorrhagic viral fever. Experiences from the previous Ebola Virus Disease (EVD) outbreak have been paramount to take into account. Coupled with an important research work, it allowed setting up through a new approach of healthcare provision, a structure that fits medical, biosecurity standards and improves the caregiver-patient relationship. Thus far, it encompasses all progress and thoughts of ALIMA and its partners in terms of innovative solutions to strengthen the health care provision and biosecurity requirements to care viral hemorrhagic fevers.

The CTEPI has been rehabilitated and the workload ended on the 5<sup>th</sup> of May 2017.

The CTEPI was rehabilitated and reorganized in order to reinforce biosecurity and improve the medical treatment of patients with viral hemorrhagic fever, as described below:

- The welcoming area has been reconfigured to ensure a safe and friendly environment for caregivers' activities and patients' care provision. A doorway with an opening on the low risk zone has been built as well as a welcoming area for ambulances with a shady area, an access ramp and a specific area for their decontamination. Moreover, a contaminated water system management has been fitted out. Also, a decontamination shower for the non-case patients has been setup as well as the triage room which allows to prioritize patients according to the severity of their conditions, and to ensure immediate care to the most urgent cases. This latter has been equipped of a 2.5m² plexiglass wall which enables a close interaction between a patient and a caregiver.
- A new patient circuit has been designed to prevent cross-contamination and nosocomial infections.
  Several rooms were equipped of plexiglass cover to allow a better monitoring of patients and care
  provision by the medical and paramedical teams. Moreover, it enables to maintain a link between
  patients and their family and thus provide them comfort, while ensuring safety standards are
  respected.
- A proper and safe waste management area with an incinerator has been installed, and enables staff to ensure an optimal waste management process, adapted to the treatment of infectious diseases. In addition, hazmat suits were provided and 8 decontamination showers were built contributing to a greater safety for the staff and the patients.
- An intensive care unit with plexiglass walls, has been created where a visual and continued monitoring of a patient can be assured to provide appropriate and specific care. The ANSS has the responsibility to equip this unit.



Year: 2016-2017

- A contingency stock was transferred to the CTEPI to ensure healthcare provision in case of a viral hemorrhagic fever for 10 patients for 10 days, especially regarding EVD. This stock includes mostly individual protection equipment, WASH equipment and logistic consumables.
- Another component of the project focused on capacity building of national health actors. Indeed, the medical and paramedical staff dedicated to 4 CTEPIs (Nzérékoré, Lola, Beyla and Yomou), that is to say 23 individuals in total, received 2 trainings sessions in May and June 2017.
- The first session aimed at improving their knowledge on EVD patients' management and healthcare delivery, including WASH and psychosocial elements. They also gained knowledge on the organization of a CTEPI.
- The second session focused on practical exercises to prepare the staff to work on healthcare delivery, prevention and infection control in real conditions. The session started with a refreshing time on knowledge acquired during the first session in May. Then, participants improved their technical skills during 4 days to master: (i) the CTEPI circuit of patient, hosting capacity, water distribution system, and waste management system; (ii) the standard definitions of cases for a close surveillance of cases; (iii) the healthcare provision to patients in the CTEPI in line with biosecurity standards.
  - Thus, they acquired practical skills to ensure hygiene in care setting, rooms' disinfection and biomedical waste management. The session also included simulation exercise of suspected and confirmed cases of EVD in the CTEPI. 10 human resources from the ANSS were also expected to get trained in order to diffuse the knowledge across the country but unfortunately, their identification by the ANSS didn't occur. Training material and trainer evaluation forms have been provided so that the ANSS trainees will have the capacity to deliver adequate knowledge for the implementation of other CTEPIs in Guinea.
- Further, this intervention developed a prototype of individual isolation unit to care for a suspected or confirmed patient of an infectious disease with epidemic potential. This tool can improve response capacities thanks to its characteristics: flexible, rapid and safe. The patient is in a protected transparent unit and the health workers can nurse him from outside. It allows a better proximity between patient, the caregiver and the patient's family. This unit is deployable within 72 hours at focal points of an epidemic outbreak and can be installed indoors or outdoors. This innovation is very promising and its validation by the WHO was underway by the end of project.

## **Component 3: Multi-faceted preparedness (NERC)**

- **a.** Support to local population during the micro-cerclage in addition to WFP food security, through:
  - 1) the supply of non-food items such as soap, mosquito nets or Chlorine C among other elements, and food products (fish and sauce condiments) to a total number of 207 families and 1,656 people;
  - 2) the deployment of security forces on the ground for 100 days to reduce the strong reluctance of the population of Koropara to receive health care and assistance at the beginning of the operation and ensure that the micro-cerclage activity takes place in complete safety.
- **b.** Support NERC costs during the flare response: a medical team of 16 members comprising 4 physicians and 12 nurses was deployed to break the transmission chain and provide adequate health care to populations affected by micro-cerclage activities. This team conducted a total of 1,088 medical



Year: 2016-2017

consultations and issued 14 alerts. In addition, logistical support was provided through deployment of 8 vehicles including 4 ambulances for the evacuation of suspect cases to the nearest ETC.

- c. Ensure that the CTEPI is properly staffed and equipped: the Ministry of Health is strengthened in 34 prefectures to respond to re-emergence of Ebola or other outbreaks. 272 health workers were deployed in 34 CTEPIs to make them functional and provide medical services to EVD survivors. 472 cured people were followed directly by NERC; 1 072 cured people or families of cured people could have access to health care if required.
- **d.** Contribute to CTEPI running costs to ensure services delivery through January 2017: in accordance with the national strategy, the NERC has given priority to activities ensuring that the CTEPIs are adequately staffed. Since this should not affect the main objective of the programme, it was mutually agreed that resources initially planned for the running costs of Nzerekore CTEPI be used to staff the CTEPIs to provide health services for Ebola survivors and communities at risk. Accordingly, the project contributed to the payment of incentives to these workers during a period of 5 months, from August 01, 2016 and December 31, 2016.

### **B.- Delays or Deviations**

### Component 1: Safe and dignified burials (SDB) (IFRC)

According the project agreement document, the project start date is 01 May 2016. However, the agreement was signed only on September 2016, just two months before the end date of 30 November 2016, whereas the first tranche of payment was released on 31 October 2016. These delays impacted negatively the proper management of funds as the Finance and the project teams had to rely only on reallocation of expenditures already spent, with almost no possibility to adapt activities to the realities on the ground.

### Component 2. Care for Persons with Ebola and infection control. (ALIMA)

Given the complexity of the Ebola Virus Disease, ALIMA met most of actors involved in the outbreak response in order to gather all knowledge and skills acquired by each. Discussions were held with MSF France (Doctors Without Borders), CRF (the French Red Cross), INSERM (Bordeaux, France), Pasteur Institute (Paris, France), Bichat Hospital (Paris, France), Pellegrin Hospital (Bordeaux, France), Free London Hospital (London, UK), P4 laboratory (Lyon, France), Begin military Hospital (Paris, France), the ANSS (Guinea). Moving forward, ALIMA developed partnerships (Securotec, a manufacturer of innovative equipment in health) with good technical skills. This process was characterized by many working and research sessions and therefore required much more time than expected to develop and test the new healthcare approach regarding infectious diseases with an epidemic potential.

Initially, it was planned to develop a transport unit for patients by adapting pick-up into ambulances. However, the vehicles and garage suitable for this adaptation could not be identified; and after a detailed evaluation it appeared that the transformation costs would be too high and that it would not significantly improve the safety of transportation. For these reasons this activity was not carried out.

Even though innovations have been realized by ALIMA, their validation for use by relevant organizations



Year: 2016-2017

requires a significant time exceeding the six months project implementation period. Moreover, some materials have to be tested in a real epidemic context to be approved for use in further humanitarian crises. During the project implementation period, beside classic epidemics such as measles, the country didn't experience a major outbreak during which tests of materials could be done. Recent outbreaks like the Ebola epidemic in Congo did not last long enough to perform these tests.

### **Component 3: Multi-faceted preparedness (NERC)**

**Activity A and B:** The approval of the project document was delayed and the starting date was 01 May 2016, while most of the expenditures related to the micro cerclage activities were made in March and April 2016. To the extent that this will not affect the nature of the activities implemented or the objective of the project, it was recommended to reset the start date from 01 May to 01 March 2016 in order to integrate the expenditures made by NERC prior May and related to the Ebola flare up in Koropara.

**Activity C:** Under the Phase III of the emergency response and national policy adopted by the NERC and the Ministry of Health, the NERC proposed to extend the coverage of CTEPIs from 5 prefectures initially planned to 34 prefectures to be able to deliver services for the survivors and mitigate residuals effects of Ebola countrywide. This was done through a reduction of base salaries by 2/3 to allow CTEPIs support for 6 months. In addition, the NERC has given priority to allocate the expenditures for strengthening "CTEPI Human resources" instead of other costs initially forecasted such as running costs (3), supervision (4), monitoring evaluation (5) and logistic direct costs (6).

**Activity D:** Budget has been allocated to cover activity C. Significant changes occurred in the exchange rates between May and September 2016 going from 1 USD = 7 604 GNF up 1 USD = 9 200 GNF, thus providing more resources to National partners to extend their activities beyond the one planned (especially regarding the NERC component).

### C.- Best Practice and Summary Evaluation

Components 1 and 2: The simultaneous implementation of EDS activities and training of community leaders for their involvement in the DHS process with those of the Community Therapeutic Dialogue (CSD) sessions between volunteers and community members carried out within the framework of the project Psychosocial support has helped to improve the image of the MAF volunteers and build trust that has contributed to the achievement of the results of both projects.

**Component 3**: At each step of the research process, working sessions gathering academic actors, NGOs, hospitals, experts from ALIMA and other partners enabled to regularly questions practices with different viewpoints and move forward together to meet objectives. Thus, it has been decided to focus more on the establishment of the isolation unit and leave aside the objective to set up pickup ambulances which turned out to be very costly and low added value.

Also, ALIMA organized presentation sessions of the care individual unit prototype to the national authorities, actors involved in epidemics management but also to relevant representatives of local communities. It enabled to get different points of view and relevant remarks regarding its conception that have been taken into account to improve the prototype. This helped to facilitate community acceptance of the innovation.



Year: 2016-2017

#### **D.-** Lessons learned

In the field of Community outreach, the main problems were intoxication and ignorance. Wrong messages were issued and disseminated which had a negative impact on collaboration. The ignorance about the disease and the fear generated were very complicated to manage and represented the two main problems. Communication is key in epidemic outbreaks. Personally, I often use this formula: "help me understand to act better"

Another highlight was the very strong stigmatization of health care workers and consequently the loss of community confidence. It is difficult to work for someone who does not recognize the efforts. The curses and insults were "accomplice of the whites", " organs traffickers" but "we are proud because we know how important is the assistance we contribute despite the difficulties". That is why communication is the key.

Strengthening national capacities in the response to potential epidemic diseases as EVD through innovative solutions was the ultimate goal of this project. Thanks to research activities and thoughts on a new approach of care the patient has been built the individual isolation unit to ensure a safer, efficient rapid and flexible way to handle outbreak hazard. Collaborative work with many actors on the field (NERC, MSF, Red Cross, medical and laboratory specialists) and specialized companies such as Securotec has proven to be essential to run the project. This intervention had the strength to mutualize around the CTEPI of Nzérékoré different stakeholders such as the Ministry of Health, the ANSS, the Prefecture Hospital, the Regional and Prefecture Health Department, the Guinean Red Cross. Each stakeholder had a particular experience of the Ebola outbreak with important and memorable damages. The meetings organized with all of them were essential for ALIMA to have all points of views, identify needs and priorities regarding the context. Building this solid network at the national and international level enabled an effective space for exchange, learning, sharing which were factors of success of this project.

Moreover, ALIMA intervention also demonstrated that this type of project involving medical innovation to improve healthcare delivery of diseases with an epidemic potential such as Ebola cannot be carried out within only 6 months.

Above technical and medical aspects, the elaboration of innovative tools like the individual unit of care took into account socio-anthropologist representations to ensure an appropriation of this new tool by communities. This represents an essential component to capitalize because this unit is aimed to be deployed in affected zones in an epidemic context and needs to be accepted by communities.

### E. Story from the Field

During the official handover ceremony of the CTEPI in July 2017, ALIMA received from the national authorities the testimony of their satisfaction and their recognition for the implementation of this CTEPI model of Nzérékoré in these terms: "Even if we were to face a new Ebola crisis in the future, ALIMA has brought to us tools to be prepared. With an operational CTEPI, we are now stronger and armed to fight this terrible disease" said a relevant figure of the ANSS.



Year: 2016-2017

## F. Photos

# Présentation au PNUD du Pilote de l'unité mobile de prise en charge





		No. o	t Direct Beneti	ciaries
	IFRC	ALIMA	NERC	Total
Women	195	NA	910	1 105
Girls				
Men	332	NA	864	1 196
Boys				
Total	527	NA	1 774	2 301

Environmental Ma	rkers
e.g. Medical and Bio	o Hazard Waste
e.g. Chemical Pollu	tion



**Year: 2016-2017** 

Re	Report reviewed by (MPTF M&E Officer to review and sign the final programme report)				
0	Name:				
0	Title: M&E -				
0	Date of Submission:				
0	Email address:				
	Signature:				