



**USAID**  
FROM THE AMERICAN PEOPLE

**CHALLENGE TB**

**Challenge TB - Malawi**  
**Year 1**  
**Annual Report**  
**October 1, 2014 – September 30, 2015**

**October 30, 2015**

This report was made possible through the support for Challenge TB provided by the United States Agency for International Development (USAID), under the terms of cooperative agreement number AID-OAA-A-14-00029.

**Disclaimer**

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

## Table of Contents

1. Executive Summary.....	6
2. Introduction .....	7
3. Country Achievements by Objective/Sub-Objective .....	8
4. Challenge TB Support to Global Fund Implementation.....	12
Annex I: Year 1 Results on Mandatory Indicators .....	14
Annex II: Status of EMMP activities .....	17
Annex II: Financial Report.....	18

## **List of Tables**

<b>Table 1. Staffing overview</b>	<b>7</b>
-----------------------------------	----------

## **List of Figures**

<b>Figure 1. Schematic overview of the TB data flow in Malawi</b>	<b>11</b>
---	-----------

## **List of Abbreviations and Acronyms**

CDC	Centers for Disease Control
CHSU	Community Health Science Unit
CONGOMA	Council for Non-Governmental Organizations in Malawi
CTB	Challenge TB
DTO	District TB Officer
ERR	Electronic Reporting and Recording
FY	financial year
GF	Global Fund
GOM	Government of Malawi
INGO	International Non-governmental Organization
IPC	Infection Prevention Control
KNCV	KNCV Tuberculosis Foundation
MOH	Ministry of Health
M&E	Monitoring and Evaluation
NTP	National Tuberculosis Program
PCC	Patient-centered care
PR	Principal Recipient
PMDT	Programmatic Management of Drug-resistant TB
STTA	Short Term Technical Assistance
TB-IC	TB Infection Control
TWG	Technical Working Group

## 1. Executive Summary

Due to the relatively late start-up of the Challenge TB (CTB) project in Malawi, the main focus of KNCV Tuberculosis Foundation (KNCV) in FY2014 has been on the recruitment of CTB technical and operations staff, setting up the in-country CTB office and registration of KNCV in Malawi. From August to October work planning for APA2 was ongoing and drafts have been shared with the NTP, USAID Mission and USAID DC. Final discussions were held with the NTP in Q1, 2016.

From Q3-Q4 CTB hired temporary Operations and Technical staff to support the project start-up and until such time when the permanent project staff are in place. The NTP made available two offices within the NTP building, which facilitated regular contact with the NTP and also with USAID's GF focal point.

In Q3, KNCV Central Office staff visited Malawi and introduced the CTB project to stakeholders (many PEPFAR implementing partners, CDC and USAID mission staff) and NTP members from the central and Zonal teams in a 1-day workshop. In Q4, two senior KNCV Operations staff met with NTP staff, Director of Policy and Planning, the USAID mission TB/HIV focal point, conducted recruitment for all project – supported positions, supported the country registration process, vehicle transfers from the previous project and conducted procurement. In addition, ongoing discussions were held with NTP senior management on the draft work plan for APA2. Potential funding and staffing were discussed with the NTP Director. These discussions were ongoing once back at KNCV Central Office.

CTB has also supported a number of priority Short Term Technical Assistance (STTA) missions. The main purpose of all three was to conduct assessments in these priority areas: PMDT; surveillance and data management, and; TB infection control. The assessment of the Central Reference Laboratory and national laboratory network was scheduled for October, thus is not part of this report. Findings and recommendations from these missions were used – to the extent possible – to readjust the APA2 workplan.

The full complement of country team staff has now been hired and includes the Country Director, the Technical Coordinator, Adviser Diagnostic Network, PSM and M&E Advisers and one Zonal TB Adviser. Acceptance of two other Zonal TB Advisers is pending. All are expected to be in country by mid-November or earlier.

In these past few months, the temporary technical consultants also provided support to estimating drug needs and follow-up of shipment details.

It is envisioned that from Q1, FY2016 (CTB APA2) onwards, all staff will be in place, approved activities from APA1 will continue to be rolled out and APA2 will have been submitted, awaiting approval. In addition, visits to Zonal Offices will be carried out to assess requirements for posting the remaining two of the expected three Zonal TB Advisers.

In December, project team staff of KNCV Central Office will travel to Malawi to conduct an introductory meeting/team building for all in-country technical and support staff and carry out more detailed work planning for APA2.

## 2. Introduction

The Challenge TB (CTB) project in Malawi works towards reducing the number of deaths due to TB and TB/HIV co-infection by improving the access to quality patient-centered care (PCC), prevention of transmission and progression to disease; and supporting the establishment of sustained and enhanced systems. KNCV is the lead partner to implement the project. The total budget allocated of CTB in FY 2014 was USD \$1,805,370 and the CTB Malawi Year 1 work plan was approved in April 2015.

### Office Set-up

KNCV recruited an interim project manager in June 2015 assigned to travel to Malawi to look for suitable office space for the Malawi Challenge TB project. In July 2015, office space was identified in Malawi's capital city Lilongwe. KNCV manages the CTB Malawi project from two locations: (1) Office space at the premises in the center of Lilongwe with room to house a maximum of 13 staff, and; (2) Office space at the Community Health Science Unit (CHSU); the premises where the National Tuberculosis Program (NTP) is based. KNCV occupies two rooms at CHSU, which enables it to work closely with the NTP in developing and coordinating the Challenge TB project. In Year 2 – when the CTB project in Malawi will start implementation – key technical staff will be placed at CHSU to ensure that the needed technical assistance is provided to the National TB Program.

### Registration

KNCV contracted a local law firm to facilitate the registration of KNCV as an International Non-Governmental Organization (INGO) in Malawi. The interim project manager has worked closely with the law firm to submit all the relevant documentation in order to finalize the process. KNCV prepared a Memorandum of Understanding (MOU) with the Ministry of Health (MOH) in August 2015. While waiting final processing, MOH prepared a No Objection Letter for the Council for Non-Governmental Organizations in Malawi (CONGOMA). This allowed KNCV to commence with its start-up activities prior to final registration.

### Recruitment of CTB staff

From July 2015 – September 2015, KNCV focused on the recruitment of key technical and administrative staff to ensure swift implementation of the project in Year 2. In August 2015, KNCV's Portfolio Manager and Human Resource Manager travelled to Malawi to shortlist suitable candidates, conduct job interviews – together with relevant KNCV technical staff – and check references. For the of total 11 positions advertised (including Country Director), KNCV received a total of 533 applications. During the visit, 37 candidates were invited for interviews and 10 were selected (the Country Director selection had been completed beforehand).

**Table 1. Staffing overview**

#	Position	Name	Nationality	Start-date
1	Country Project Director	Dr. Anthony Abura	Uganda	October 2015
2	Technical Coordinator	Dr. Seraphine Mulenga	Zambia	November 2015
3	Sr. Finance Admin Officer	Mr. Fumbani Chiumia	Malawi	December 2015
4	PSM Advisor	Dr. Prakash Raj Pant	Nepal	November 2015
5	Advisor Diagnostic Network	Mr. Blessing Marondera	Zimbabwe	December 2015
6	M&E Advisor	Mr. Chifundo Chomanika	Malawi	November 2015
7	Zonal TB Advisor	Mr. Patrick Gomani	Malawi	November 2015
8	Admin Assistant	Ms. Eleanor Banda	Malawi	December 2015
9	Driver/Logistician	Mr. Felix Gaven	Malawi	November 2015
10	Driver/Logistician	Mr. Joseph Kandiado	Malawi	November 2015
11	Driver/Logistician	Mr. Alick Kumwenda	Malawi	November 2015

## **Work planning for CTB Malawi Year 2**

From August 2015 – September 2015, KNCV focused on preparing for the CTB Year 2 narrative, work plan with budget (amount of budget for USAID and PEPFAR) and STEP table. As Year 1 activities comprised mainly of administrative and technical project preparations, it was decided to incorporate the Year 1 and Year 2 activities in one work plan. In August, the KNCV Technical Focal Point, Project Officer and Interim Technical (external) Consultant Jacques van den Broek traveled to Malawi to start the work planning process. As the CTB work planning process coincided with the Global Fund (GF) grant preparations, CTB staff had limited access to senior NTP staff. The MOH together with the second Principal Recipient (PR) [Action Aid] focused on developing the budgets and work plans for the TB interventions captured in the approved Concept Note for a total of USD 40 million. This timing allowed CTB staff to better understand the planned TB and TB/HIV activities funded through the GF so that CTB/KNCV proposed activities would be either: (a) complementary or; (b) allow CTB to pilot key GF funded activities and gather important lessons learned prior to actual GF implementation.

KNCV worked together with key NTP focal staff to brainstorm on activities and gather baseline data for its Monitoring & Evaluation (M&E) framework. In August, CTB/KNCV and NTP organized a stakeholder workshop to: (1) get an overview of stakeholders' TB-related activities in Malawi; (2) analyze the gaps in implementation; (3) make recommendations to increase mechanisms of coordination. The workshop led to the following conclusions:

- There are a variety of partners working on TB and HIV related activities in different districts piloting innovative activities in the areas of – amongst others – patient-centered-care and enabling environment;
- Stakeholders' activities are fragmented and coordination on: (a) best practices; (b) lessons learned and; (c) tools/approaches used can be improved.
- Materials developed and used in partner level activities are often not standardized with national policies and do not lend themselves for further scale-up among partners;
- There is an opportunity to integrate successful (community-based) strategies from work on HIV in TB-related activities.

Based on the outcome of the stakeholder workshop and subsequent discussions with the NTP, CTB/KNCV submitted the narrative work plan and budget for USD 6,010,360 (year 1 and year 2 obligation) in September 2015. The work plan is currently under review with USAID.

## **3. Country Achievements by Objective/Sub-Objective**

For Year 1, CTB had start-up activities in the following four technical areas: 1) Programmatic Management of Drug Resistance (PMDT); 2) TB Infection control (TB IC); 3) Quality data, surveillance (ERR), and; 4) Overall technical supervision.

Due to late start-up this following section refers to the priority assessments that were carried out from August to October 2015 and these are summarized below:

### **Short Term Technical Assistance**

In June CTB/KNCV supported a short-term technical assistance (STTA) mission in support of a Procurement and Supply Management plan for TB medicines to be procured with funding by the Global Fund NFM grant. (See Global Fund support section 4)

In September, KNCV organized three short-term technical assistance (STTA) missions to lay the technical foundations of the Challenge TB project. KNCV recruited an external consultant – Dr Tushar Kanti Ray – who, under the supervision of the KNCV Technical Focal Point - organized these technical missions. These three STTA missions related to the following three subjects: 1) Programmatic Management of Drug-resistant TB (PMDT); 2) Electronic Recording and Reporting (ERR); and 3) TB-Infection Control (TB-IC).

## **Objective 1. Improved Access (Improve quality of TB services in terms of access and service utilization for both clinical and diagnostic services using a patients centered approach)**

### **Sub-objective 1. Enabling environment**

#### Summary of STTA PMDT – 30 August – 6 September 2015

From 30 August – 6 September, KCNV's PMDT consultant Dr. Nunurai Ruswa (currently working in Namibia as PMDT focal point for CTB/KNCV Namibia) traveled to Malawi to provide recommendations for the CTB approach on PMDT, and the year 2 work plan with respect to PMDT.

Findings/Observations: The consultant noted that Malawi has a committed and well-represented NTP national level team. National guidelines for susceptible TB, MDR-TB, and community based MDR-TB management are widely available and a well-functioning system for the national reference laboratory to report all DST results to the NTP is in place. However, Malawi also faces a number of challenges in organizing its PMDT.

Malawi is a low-income country with an estimated TB incidence rate of 156/100,000 and an adult HIV prevalence of 13%. Based on a drug resistance survey conducted in 2009-2010 with USAID support through TB CAP, 0.4% and 4.8% of new and previously treated TB patients have MDR-TB. WHO Global TB Report data 2015 indicate that 17,723 cases of TB were notified in 2014 (16,267 new and 1,456 previously treated). Between 15 and 40 cases of MDR-TB have been reported nationally every year since 2007 (19 in 2014), which is short of the 144 expected to occur among notified PTB patients. The low prevalence of MDR-TB in Malawi presents challenges on costs and achieving high quality of care (staff competency), recording, monitoring, and supervision. The treatment of patients with MDR-TB is entirely community-based, with no provision for hospitalization of patients with MDR-TB under well-established TB-IC conditions. Patients lack adequate information on TB infection control in their homes.

NTP has not been conducting supportive supervision visits for several years due to inadequate funding, largely due to unavailability of Global Fund funds from the remaining round 7 grant. Program review meetings at different levels have also been discontinued for the same reasons. Moreover, the guidelines are not always followed due to transportation challenges, insufficient maintenance of machines amongst others. While patients with susceptible TB are managed both in the community and in the health facilities (including hospitalization of most patients on the retreatment regimen for streptomycin injections), there is reluctance by many health workers to allow MDR-TB patients to visit health facilities or be hospitalized even when they are well established on treatment. This is due to the perceived risk of transmission in the hospital.

The following recommendations were made:

- Introduce periodic national review meetings for TB and PMDT, to review and audit the diagnostic chain, enrolment and treatment reports and clinical management;
- Establish a quarterly reporting system for MDR-TB;
- NTP should consider integrating MDR-TB into the routine quarterly TB reporting system;
- NTP should consider holding a consultative meeting with hospital managers, covering PMDT, infection control and consulting on how to provide services to patients;
- NTP may consult stakeholders on modalities to ensure availability of transport locally (recognizing local/district variations);
- NTP is advised to conduct training of zonal multidisciplinary teams on PMDT. This training may include district health officers/medical officers and nurse managers to foster their participation in the teams. Additionally, a zonal level cadre may be assigned for PMDT in each zone;
- NTP is advised to revive the multidisciplinary national forum (consilium) to discuss issues around the holistic management of MDR-TB cases being notified, not only for clinical issues;
- NTP and stakeholders to consider piloting of a 'Shorter regimen' for MDR-TB.

## Objective 2. Prevention

### Sub-objective 5. Infection control

#### Summary of STTA on TB Infection Control 2–18 September

KNCV consultant Dr. Max Meis traveled to Malawi to conduct a situational analysis on TB-IC implementation that provided recommendations for the national scale-up of TB-IC supported by the Challenge TB project.

*Findings/observations:* Infection Prevention Control policies and practices have been scaled up into health facilities across Malawi, however TB-IC has yet to be integrated. Independent TB-IC activities have been implemented in selected districts under previous USAID-supported TB projects which included training of HCWs from district and peripheral facilities as well as FAST pilots in two district hospitals. Evaluations on the status and outcomes of these activities have been carried out by the USG/PEPFAR (2015) and by the NTP with I-Tech (2014).

The consultant assessed five health facilities, situated in Mangochi and Salima districts, to better understand current practices and main challenges for TB-IC implementation at facility level and scale-up. In addition to the traditional TB-IC assessments, a validated monitoring tool that measures compliance with 10 TB-IC standards was used. The range of compliance of the five health facilities varied from 55-80 percent suggesting TB-IC implementation at facility level must be strengthened further to meet required international standards. The consultant interviewed key stakeholders from different health service delivery levels. Across all stakeholders, there was genuine interest and support for further integration of TB-IC into HIV and IPC program activities and for the incorporation of TB-IC in all routine training, (joint) supervision, monitoring and surveillance activities.

The consultant facilitated a three-day stakeholders meeting to develop a scale-up plan to implement and mainstream TB-IC in all district hospitals and high volume settings. The consultant also visited two prison sites in Lilongwe and Mangochi, to assess the risk for TB transmission and evaluate TB case finding strategies and standard procedures in order to develop standards and harmonized SOPs for TB control in prisons in Malawi.

The following recommendations were made:

- Actions for the NTP: (1) Revise relevant policies, guidelines, checklists and training materials by Jan 2016, together with the HIV Department and MOH-QA unit, if appropriate; (2) Develop, print and disseminate IC-IEC materials by Feb 2016, together with EGPAF; (3) Facilitate the training of national and zonal HIV and IPC staff and trainers of the PEPFAR partners in Feb 2016; (4) Include TB-IC as a standard agenda point of the national TB/HIV Technical Working Group (TWG) meetings to keep track of progress of the TB-IC scale-up; (5) Revive the TWG for prison TB.
- Actions for the Challenge TB country team: (1) Organize a stakeholders meeting together with the NTP to develop standards and uniform SOPs for Prison TB by Dec 2016; (2) Support the launch of the IC Push Plan together with the zonal supervisors and partners enrolling the six selected district hospitals: Karonga, Kasungu, Bwaila, Machinga, Mangochi and Nsanje; (3) Support NTP to conduct a mid-term and end-term review in 2017 and 2019, jointly with the partners, and the HIV and IPC department. The 2014 evaluation will serve as baseline.  
Actions for the district hospital teams and partners: (1) Roll out the IC-Push model from 2017-2019 to cover all high burden settings of all 28 districts.

### Objective 3. Strengthened TB Platforms

#### Sub-objective 9. Drug and commodity management systems

Please see the section on Global Fund Support

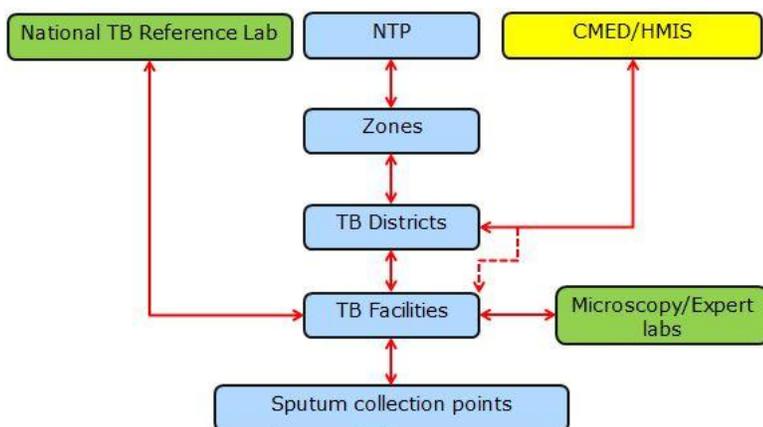
#### Sub-objective 10. Quality data, surveillance and M&E

##### Summary of the STTA Electronic Reporting and Recording (ERR) 7–17 September 2015

From 7–17 September KNCV consultants Job van Rest and Nico Kalisvaart traveled to Malawi to assess the current status and identify how to strengthen the national TB surveillance system (TB/HIV, MDR-TB) to ensure reliable and timely data for policy, planning and programmatic management. Specifically by assessing the feasibility of implementing a case-based electronic recording and reporting (ERR) system and to determine an overall approach (action plan or “Road map”) and indicative resources needed.

Findings/ observations: The overall dataflow is shown in figure 1. There are approximately 250 TB facilities where patients with TB can be registered for treatment. MOH collects three aggregated indicators for TB from the district level making use of a web-based Health Management Information System (DHIS2). In Malawi the sputum collection points are set-up in different settings such as communities or departments of a hospital outside the TB ward (e.g. out-Patient Department, ART department).

**Figure 1. Schematic overview of the TB data flow in Malawi**



At the sputum collection points, presumptive TB patients are registered in the Chronic Cough Register once sputum is collected and sent to the local laboratory for sputum-smear microscopy or GeneXpert testing (MTB/Rif testing). All facilities where patients receive TB treatment have case-based TB Treatment Registers in place. At the district level, the District TB Officer (DTO) is responsible for collecting and aggregating the patient data into a District TB Register for quarterly reporting to the zonal TB coordinator and aggregating of data for the HMIS officer who enters the data for TB (and many other disease indicators) in DHIS2. The zonal TB coordinator aggregates the district data quarterly and transfers these data to NTP. This is the common way for paper-based aggregated reporting of TB surveillance data since introduction of this system in the early eighties.

NTP faces the following challenges in data collection: (1) Data management supervision not routinely done; (2) Need for capacity building on the job; (3) Lack of adequate hardware and software and (4) Lack of documented processes and procedures (manuals).

The Mission also identified other (electronic) data management systems currently in use in Malawi, such as the Central Monitoring Evaluation Division (CMED) of the Ministry of Health. Baobab Health, a

local ICT company developed the Baobab Anti-Retroviral Therapy (BART) application for the MOH. The DREAM project developed a customized system which integrated patient management and laboratory management with equipment in the clinic (e.g. mobile ECG) and the laboratory (e.g. viral load blood test).

The following recommendations were made for Year 2:

- NTP: Appoint a 'focal person' to support the surveillance and data management activities and development of the TB ERR (funded and seconded by CTB/KNCV);
- NTP and CTB/KNCV: Organize and conduct a stakeholders workshop:
  - Prepare a "Draft" for discussion on the phases and timelines of the development and design of the revised TB ERR system ("Road Map") which builds on country capacity and lessons learned from similar eHealth initiatives;
  - Define the roles and responsibilities of the stakeholders in the revision of the TB ERR system;
  - Discuss and define project management and funding from various resources (CTB, GF, MoH, etc.)
- Support data utilization at all recording and reporting levels (CTB/KNCV);
- Support the development of data management protocols/manuals (CTB/KNCV);
- Support data validation at national level by on the job capacity building (CTB/KNCV);
- Provide adequate hardware and software tools for data management (TBD/GF).

#### **4. Challenge TB Support to Global Fund Implementation**

At the end of January 2015, Malawi submitted a single TB/HIV concept note to the Global Fund (GF) to provide support for the National TB and HIV Programs, and collaborative TB/HIV activities. The concept note was reviewed by the Global Fund's Technical Review Panel (TRP) in April 2015, and went to the first Grant Approvals Committee (GAC I) in May 2015. The GF Country Team visited Malawi in May to review the TRP recommendations and to start discussions on the initial grant making process, which will take place in June 2015.

Ensuring uninterrupted supply and equitable access to quality assured anti TB drugs and supplies remains a challenge in Malawi, despite progress made in strengthening the country procurement and supply management (PSM) system. NTP, working together with its partners, is in the process of strengthening PSM as a crucial component in the TB control activities. This is also influenced by the provisional results of the National TB Prevalence survey, which indicate that with a prevalence of 286/100,000 population Malawi is under-detecting TB cases by about 50% as per routine TB notification data.

The complexities of implementing an effective response to TB in a high HIV setting requires an efficient procurement and supply management system that will enable prompt and accurate diagnosis and treatment of both drug-susceptible and drug-resistant TB to improve treatment outcomes and prevent the development of resistant forms of TB.

CTB/KNCV supported a consultancy by a PSM consultant in Q3 to support Malawi's National TB Program in the grant making process particularly as it refers to PSM planning. This activity was done together with the NTP and other PSM experts who focused on HIV to ensure a joint TB/HIV PSM Plan.

### Current Global Fund TB Grants

	<b>Name of grant &amp; principal recipient</b> <i>(i.e., Tuberculosis NFM - MoH)</i>	<b>Average Rating*</b>	<b>Current Rating</b>	<b>Total Approved Amount</b>	<b>Total Disbursed to Date</b>	<b>Total expensed</b> <i>(if available)</i>
R7	Ministry of Health	B2-B1	A2	17,961,859	6,491,816	6,000,000
TFM	Ministry of Health	B2	A2	4,677,100	1,569,011+50,000 Pending 796,202	343,167
NFM	Ministry of Health			30,000,000	0	0
NFM	ActionAID			6,500,000	0	

### In-country Global Fund status - key updates, current conditions, challenges and bottlenecks.

The Grant for 2016-2018 has only just been signed and the two PRs (MOH and ActionAID) are putting their systems in place to ensure a start date of January 1, 2016.

The GOM is fully dependent on procurements financed from the GF. The major issues with the GF Transitional Funding has been the timely release of these funds and for the much - needed anti-TB medicines. Delays threaten the integrity of the program as a whole.

The GF - supported MOH financial management system currently in place for approval of any activity in the grant is slow, cumbersome and largely inefficient. This is expected to change with the NFM Grant and PR systems, which is scheduled to be launched January 2016.

In recognition of a potential impending stock out, the GOM did, however, set aside a small amount of funding for procurement of a limited amount of medicines. To date only partial delivery occurred. Many partners have stepped in to support/address the bottlenecks of this process. Recent transactions for expediting the GF-GDF procurement will mitigate a large scale stock-out around the country. Meanwhile NTP has been working to ensure re-allocation of current stocks at the more peripheral levels.

In the past the NTP was frequently late on submission of PUDRs but this has been resolved with the recruitment of a USAID - focal person who works directly with the NTP manager and his team. The last rating for TB was A2.

## Annex I: Year 1 Results on Mandatory Indicators

Challenge TB in Malawi will report on these indicators in Q1 of Year 2. Kindly find the national baseline data stated below.

<b>MANDATORY Indicators</b>				
<b>2.1.2 A current national TB laboratory operational plan exists and is used to prioritize, plan and implement interventions.</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
<b>Score</b> as of September 30, 2015	0 (2014)	N/A	N/A	N/A
<b>2.2.6 Number and percent of TB reference laboratories (national and intermediate) within the country implementing a TB-specific quality improvement program i.e. Laboratory Quality Management System</b>	<b>National APA 1</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
<b>Number and percent</b> as of September 30, 2015	50% (1/2)NRL	N/A	N/A	N/A
<b>2.2.7 Number of GLI-approved TB microscopy network standards met</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	NE	N/A	N/A	N/A
<b>2.3.1 Percent of bacteriologically confirmed TB cases who are tested for drug resistance with a recorded result.</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	2013 New patients: 1%, Retreatment patients: 20%	N/A	N/A	N/A
<b>3.1.1. Number and percent of cases notified by setting</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	2013, All forms n=19,359	N/A	N/A	N/A
<b>3.1.4. Number of MDR-TB cases detected</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	In 2013 23 RR/MDR-TB positive	N/A	N/A	N/A

	patients were diagnosed			
<b>3.2.1. Number and percent of TB cases successfully treated (all forms) by setting</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	Treatment success of new and relapse 82% (2012 cohort)	N/A	N/A	N/A
<b>3.2.4. Number of MDR-TB cases initiating second-line treatment</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	2013: 11/23	N/A	N/A	N/A
<b>3.2.7. Number and percent of MDR-TB cases successfully treated</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	69% treatment success (Cohort 2011)	N/A	N/A	N/A
<b>5.2.3. Number and % of health care workers diagnosed with TB during reporting period</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	N/A	N/A	N/A	N/A
<b>6.1.11. Number of children under the age of 5 years who initiate IPT</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	2,770 children started on IPT in 2014	N/A	N/A	N/A
<b>7.2.3. % of activity budget covered by private sector cost share, by specific activity</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	N/A	N/A	N/A	N/A
<b>8.1.3. Status of National Stop TB Partnerships</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	There is no Stop TB Partnership platform in Malawi. CTB may provide limited assistance, as most resources will come from the Global Fund grant, and all depends from MOH and NTP leadership.	N/A	N/A	N/A

<b>8.2.1. Global Fund grant rating</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	B1/B2 2014	N/A	N/A	N/A
<b>9.1.1. Number of stock outs of anti-TB drugs, by type (first and second line) and level (ex, national, provincial, district)</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	Data not routinely collected (2014)	N/A	N/A	N/A
<b>10.1.4. Status of electronic recording and reporting system</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	1	N/A	N/A	N/A
<b>10.2.1. Standards and benchmarks to certify surveillance systems and vital registration for direct measurement of TB burden have been implemented</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	No	N/A	N/A	N/A
<b>10.2.6. % of operations research project funding provided to local partner (provide % for each OR project)</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	0 (2015)	N/A	N/A	N/A
<b>11.1.3. Number of health care workers trained, by gender and technical area</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	Data not available	N/A	N/A	N/A
<b>11.1.5. % of USAID TB funding directed to local partners</b>	<b>National Baseline</b>	<b>CTB APA 1</b>	<b>CTB APA 1 investment</b>	<b>Additional Information/Comments</b>
	0 (2015)	N/A	N/A	N/A

## Annex II: Status of EMMP activities

Year 1 Mitigation Measures	Status of Mitigation Measures	Outstanding issues to address in Year 2	Additional Remarks
1. Education, technical assistance, training, etc.	No environmental impacts as a result of these activities	N/A	N/A
2. Public health commodities	The CTB Year 1 budget provided for the procurement of cartridges only. Due to the late start-up of the project; these cartridges will be procured in Year 2.	In Year 2, Challenge TB will provide necessary precautions on environmental impacts through the technical assistance provided (training, on-site technical assistance and on-the-job training and monitoring) to support proper storage, distribution, and handling of Gene Xpert cartridges.	N/A
3. Medical waste	CTB did not contribute to medical waste as cartridge procurement has been postponed to Year 2	In Year 2, CTB will provide technical assistance to ensure that Xpert sites properly dispose waste resulting from Xpert testing. During the supervision CTB will provide to Xpert sites, adequate focus will be made on the waste management practices to make sure it is done according to existing standards.	
4. Small-scale construction	This category of activity is not included in the Year 1 workplan	N/A	N/A
5. Small-scale water and sanitation	This category of activity is not included in the Year 1 workplan	N/A	N/A