

End of Project Evaluation: Evaluation Report

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List of Acronyms and Abbreviations

AFRO	African Regional Office for the World Health Organization
BBC	British Broadcasting Corporation
BICO	Blantyre Institute of Community Ophthalmology
CLAIMS	Claim and Information Management System
DFID	UK government Department for International Development
EU	Evaluation Unit
FHI360	Family Health International 360
FGD	Focus Group Discussion
GET2020	Global Elimination of Trachoma by the year 2020
GPS	Global Positioning System
GTMP	Global Trachoma Mapping Project
ICTC	International Coalition for Trachoma Control
IDI	In-depth interview
ITI	International Trachoma Initiative
KCCO	Kilimanjaro Center for Community Ophthalmology
LF	Lymphatic filariasis
LSHTM	London School of Hygiene and Tropical Medicine
M-health	Mobile-health
MDA	Mass Drug Administration
MoH	Ministry of Health
MTR	Mid-Term Review
NGO	Non-Governmental Organisation
NTD	Neglected Tropical Disease
ODK	Open Data Kit
RTI	Research Triangle Institute
SAFE	Surgery, Antibiotics, Facial cleanliness and Environmental improvement (WHO-endorsed four-part strategy for trachoma control and elimination)
STH	Soil Transmitted Helminths
TAP	Trachoma Action Plans
ToR	Terms of Reference
TF	Trachomatous inflammation – follicular
TT	Trachomatous trichiasis
UCA	Unit Cost Analysis
USAID	United States Agency for International Development
VfM	Value for Money
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization


Executive Summary




In July 2012, Sightsavers was awarded £10.6 million by the UK government Department for International Development (DFID) to implement the Global Trachoma Mapping Project (GTMP). The aim of the GTMP was to map trachoma, through the conduct of standardised baseline prevalence surveys, across all suspected endemic districts globally by 2015. Over three years, the GTMP has delivered over half of all the trachoma surveys that have ever been conducted (56%). With mapping activity recently completed, this end of project evaluation aims to establish the extent to which the project has successfully mapped trachoma in the project countries in line with the Logframe in an efficient and cost effective manner, to explore the implications and value generated by project activity and to identify any key lessons learnt which could be taken forward in the planning of other disease mapping programmes.




The Terms of Reference (ToR, Appendix 1) poses a series of questions under seven evaluation criteria which guided both the evaluation and data collection approach; Relevance, Effectiveness, Efficiency, Scalability, Impact, Sustainability and Coherence/coordination. The evaluation was conducted retrospectively, incorporated both a process and impact-orientation, and was largely qualitative in nature. Sampling of informants was purposive. Data collation and collection first involved a documentation review, of both internal project documentation and relevant literature, followed by primary data collection from a series of in-person in-depth interviews (IDIs) and Focus Group Discussions (FGDs) with a range of key informants from three countries (Nigeria, Tanzania and Malawi), as well as those active at the global level, specifically principals at Sightsavers, WHO and other members of the GTMP Advisory Committee. Discrete quantitative analysis of project achievements based on Logframe data was also done. Thematic analysis of interview data followed the ‘framework’ approach, whereby a pre-existing coding frame was developed based on the evaluation criteria to which themes were added on review of the data. Corroboration was sought across informants and a triangulation approach across project documentation and FGD/IDI data.

A summary of findings, including both evaluation rating and comment by evaluation criteria, are provided in Table 1 below. Evaluation criteria rating guidance is provided in Appendix 2.

Table 1: Evaluation rating and comment against each evaluation criteria

Evaluation category	Rating	Comment
Relevance	Excellent 	There was universal agreement across informant groups of the importance and relevance of the GTMP in the context of the global aim to achieve elimination of trachoma as a public health problem by 2020. Respondents considered relevance in terms of both project design and project achievements, encompassing both direct project outputs and added-value generated by the project, which together strengthen prospects for achieving elimination in at least some countries in the next critical period of SAFE strategy implementation (Surgery, Antibiotics, Facial cleanliness and Environmental improvement).

Effectiveness	Excellent 	The project has demonstrated a high level of effectiveness, having exceeded all targets stipulated within the Logframe. These achievements reflect the overall effectiveness in the design of the GTMP and systems behind its delivery, as well as the effective management and coordination of fast scale up, which could all be closely built-on for future disease survey activity.
Efficiency	Excellent 	The GTMP has shown high levels of efficiency and has provided a good model for cost containment. The overall project strategy reflects a key focus on efficiency in its aim to maximize the use of valuable resources. Informants universally agreed that the project was efficient. The project does not have a comprehensive value for money (VfM) strategy though this was not a requirement. However, some solid approaches have been taken to measure VfM during the course of the project which have generated valuable experience. The unit cost analysis in particular will enable a good understanding of the costs involved, useful for comparative purposes and for planning future disease mapping activity.
Impact	Excellent 	Formally, project impact can be viewed in terms of contribution to the global elimination of blinding trachoma by 2020 and as such, is not yet measurable given measurement relies on comprehensive implementation of the SAFE strategy in the 3-4 year period following the end of the project. The primary role of the GTMP has been the generation of TF and TT prevalence data with which to guide trachoma action planning; planning and implementation specifically have been beyond the original project scope though significant efforts have been made to add value in this area. The GTMP has demonstrated the benefits of standardised approaches and methodologies, and has shown that electronic data capture and processing can be adopted across varied settings, which has encouraged wider uptake. The GTMP has illustrated how varied partners and donors can work together to maximize their resources and improve quality, and has made a valuable contribution towards the securing of considerable funds for SAFE implementation in the next critical elimination phase. The GTMP has also strengthened and energised the global trachoma community towards the elimination effort.

Sustainability	Excellent 	The results from the GTMP surveys and widespread development of country level, target-orientated Trachoma Action Plans have made a valuable contribution towards making feasible the elimination of trachoma as a public health problem. Significant thought has been given within the project to legacy planning, in particular the development of the Tropical Data platform, into which lessons learnt from the GTMP have been applied. Countries do have a sense of ownership of the data, though this could have been strengthened through further engagement with the end-users earlier on in the project, as well as clarifying the data approval process. While, inevitably, significant challenges exist as relating to elimination, the GTMP data provides the critical and essential foundation for the next phase of activity.
Working at scale	Excellent 	The simplicity and standardisation in project design, coupled with a strong partnership and centralised project management, facilitated a fast scale up, exceeding original expectations in mapping coverage over the three year project period, whilst also maintaining high levels of quality control.
Coherence/ coordination	Excellent 	The overall strength in the GTMP partnership at the global level appeared to be a key driver of impressive project achievement. The tripartite partnership arrangement in-country was both appropriate in design and effective, though the strength of the partnership varied by country – this was explored by GTMP in the initial planning stages and additional support assigned when perceived to be needed. The project did not give specific priority to disability or gender responsiveness.

Based on the findings from this evaluation, some **recommendations** are made for the planning of future disease mapping activity. These relate to ensuring the relevance of mapping activity, and prioritising the scope of data to be collected based on clear gaps in epidemiological knowledge and need for immediate intervention planning. Guidelines and criteria for deciding on mapping sites, and the scope of acceptable evidence for guiding such decisions should be clear from the outset. Specific subsequent uses of the data should be considered in advance, including the development of any systems or processes which could facilitate fast application.

Standardisation across a range of aspects of planning and delivery is important for an efficient roll out of mapping activity, as well as to maintain quality control, particularly when operating at large scales, though some level of flexibility should be retained to enable appropriate adaptation to varied contexts and the incorporation of lessons learnt. Electronic data capture and processing, with cloud-based data storage, is recommended. High quality training is critical for the collection of high quality data, comparable across

different settings; standardised approaches, pre-tested, focused materials, the careful selection of trainers and trainees, the emphasis of practical application in diagnostic training and post-training assessments are all important.

At the field level, micro-planning should be detailed and be done in collaboration with the Ministry of Health (MoH) and implementing partners. Efficiency – and value for money – can be boosted by harmonising the micro-planning and budget development processes, and by ensuring any learning on cost and cost drivers is applied into developing standards to guide on estimated or acceptable ranges for further mapping activity, and likely variations according to context. Effective sensitisation is critical to encourage community support for and engagement with the activity, and to maintain good security. Operational supportive supervision is likely as critical for maintaining quality in data collection as is technical supportive supervision.

Where data cleaning and analysis is done remotely, responsiveness to queries on the cleaning or analysis process and speed in providing the final data set are important for maintaining a sense of involvement in, and ownership over, the data. MoH ownership of any mapping data is essential given the leadership role governments must play in subsequent implementation and evaluation activities; it is important that they have a comprehensive understanding of the full scope of mapping data and its interpretation. Dissemination activities should be well supported, and the availability of summaries of findings through an open-access resource should be considered.

Rigorous project management and coordination are imperative for an efficient and quality roll out of activity, particularly if at scale. Advisory or steering committees can also play a valuable role in technically and operationally guiding the project. Finally, efforts to integrate mapping should learn from previous experiences in doing so.

1. Introduction and Background

1.1 PROJECT BACKGROUND

Trachoma remains the world's leading infectious cause of avoidable blindness¹. The disease is responsible for 3% of the world's blindness² and for the visual impairment of about 2.2 million people, of whom 1.2 million are irreversibly blind³. In 2012 it was estimated that about 230 million people live in trachoma-endemic areas throughout many countries of Africa, the Middle East, Asia, and a few settings in Latin America⁴. According to a census leading up to 2012, it was estimated that 51 countries have trachoma as a public health problem; with an additional seven previously affected countries having reported achievement of the targets for "elimination of blinding trachoma as a public health problem"⁵.

Trachoma affects marginalised population groups and is, indisputably, a disease of poverty, occurring where people live in crowded conditions with poor sanitation and limited access to clean water and health care⁶. The disease is caused by the bacterium, *Chlamydia trachomatis*, which presents initially in young children as an inflammation of the eye lid. Vision loss and blindness occurs as a result of repeated infections over a period of many years. The bacteria can be spread by both direct and indirect contact with an infected person's eyes or nose. The highest prevalence of active trachoma in hyper-endemic areas is found among children 1–3 years of age. Adult women are also more likely to have evidence of active disease and infection, thought to be primarily due to women's closer and more frequent contact with children as well as poorer access to treatment⁷.

By formal resolution of the World Health Assembly, trachoma has been targeted for elimination as a public health threat by 2020. The effort is guided under the auspices of the World Health Organization (WHO) Alliance for the Global Elimination of Trachoma by 2020 (GET2020), a partnership of WHO member states, NGOs, research institutions, philanthropic foundations and industry. Mapping is a critical first stage in achieving elimination of trachoma by 2020 because programmes determine the need for interventions based on population-level prevalence of disease⁸. Once the endemicity of trachoma is known, resources can effectively be targeted for the implementation of the SAFE (Surgery, Antibiotics, Facial cleanliness and Environmental improvement) strategy which was formally adopted by the Alliance in the 1990s for the elimination of trachoma⁹. The mapping data will also provide a baseline against which interventions can be measured¹⁰.

In July 2012, Sightsavers was awarded £10.6 million by the UK government Department for International Development (DFID) to implement the Global Trachoma Mapping Project (GTMP). With Sightsavers as the overall management and coordination lead, the project

¹ Courtright P, West SK. Contribution of sex-linked biology and gender roles to disparities with trachoma. *Emerg Infect Dis.* 2004 Nov;10(11):2012-6.

² Resnikoff S et al. Global magnitude of visual impairment caused by uncorrected refractive errors in 2004. *Bulletin of the World Health Organization*, 2008, 86:63–70.

³ Pascolini D, Mariotti SP. Global estimates of visual impairment: 2010. *Br J Ophthalmol*, 2012, 96(5): 614–618.

⁴ World Health Organization. (2013). *Global Alliance for the Elimination of Blinding Trachoma: progress report on the elimination of trachoma, 2012.* *Weekly Epidemiological Report*, 24(88), 242–251. Retrieved from <http://www.who.int/wer>

⁵ WHO Weekly epidemiological record, Relevé épidémiologique hebdomadaire, 26 SEPTEMBER 2014, 89th year / 26 SEPTEMBRE 2014, 89e année, No. 39, 2014, 89, 421-428. <http://www.who.int/wer>

⁶ Ejere HO, Alhassan MB, Rabiu M. (20 February 2015). "Face washing promotion for preventing active trachoma." *Cochrane Database of Systematic Reviews* 2015 2 (2): CD003659.

⁷ Courtright P, West SK. Contribution of sex-linked biology and gender roles to disparities with trachoma. *Emerg Infect Dis.* 2004 Nov;10(11):2012-6.

⁸ Solomon AW, Kurylo E. The Global Trachoma Mapping Project. *Community Eye Health.* 2014;27(85):18.

⁹ Solomon AW, Zondervan M, Kuper H, et al. *Trachoma control: a guide for program managers.* Geneva: World Health Organization; 2006.

¹⁰ Business Case and Intervention Summary: Global Trachoma Mapping, 2012.

operated as an association of partner agencies, working in coordination with national and regional health ministries, and supported by an Advisory Committee¹¹. The aim of the GTMP was to map trachoma, through the conduct of standardised baseline prevalence surveys, across all suspected endemic districts globally by 2015. Prior to the initiation of the GTMP, the geographical burden of trachoma had only been partially assessed; from 1987 to the beginning of 2012, population-based surveys mapped trachoma in 1,115 districts worldwide, with data thought to be required from at least another 1,238 suspected endemic districts across 34 countries to complete the global picture¹². The GTMP undertook the effort to map trachoma in all 1,238 districts, though since the onset of the project, data have suggested the need to map a further 500 districts, while some countries have been removed from the list.

Specifically, baseline surveys aimed to estimate prevalence of trachomatous inflammation follicular (TF) in children aged 1-9 years and trachomatous trichiasis (TT) in adults aged 15 years and above, in order to inform need for trachoma control interventions and to plan implementation of the SAFE strategy. Data on access to water, sanitation and hygiene (WASH) were also collected, specifically household water source, and facilities used for disposal of human faeces. Sample sizes were powered to estimate prevalence of TF at administrative units with populations approximating 100,000 to 250,000, often corresponding to the district level¹³. Examination for trachoma was done by rigorously trained and internationally certified ophthalmic health care workers using the WHO simplified grading system.

SAFE STRATEGY

Surgery to halt pain and damage for people at immediate risk of blindness

Antibiotic therapy to reduce the community reservoir of infection

Facial cleanliness and improved hygiene to reduce transmission

Environmental improvement focused on access to water and basic sanitation so that the environment no longer facilitates transmission of trachoma

The GTMP grant was originally designed to be deployed over three years, however because of the increase in demand of districts to be mapped DFID agreed to extend the grant period by 6 months. The programme Logframe (see Appendix 7) is set against three years of grant delivery, with notes to account for the additional 6 months of programme delivery. The figures below, relate to the performance of GTMP over its entire tenure, unless otherwise stated. GTMP has delivered over half of all the trachoma surveys that have ever been conducted (56%). With mapping activity recently completed, this end of project evaluation aims to establish the extent to which the project has successfully mapped trachoma in the project countries, to explore the implications and value generated by project activity and to identify any key lessons learnt which could be taken forward in the planning of similar programmes.

¹¹ In addition to Sightsavers, the original partners of the GTMP were the International Trachoma Initiative (ITI) and the London School of Hygiene and Tropical Medicine (LSHTM), though the Kilimanjaro Center for Community Ophthalmology (KCCO) has also taken on an active role in supporting countries prior to mapping (by advising on the development of survey plans) and after mapping (by facilitating Trachoma Action Plan meetings). The Advisory Committee constituted 12 trachoma experts that met three to four times per year to advise on and discuss project progress.

¹² Solomon AW, Kurylo E. The Global Trachoma Mapping Project. *Community Eye Health*. 2014;27(85):18.

¹³ As the definition of a "district" is variable globally, and may represent large variations in geographical and population scale, a decision was made to generally map in areas of population between 100,000 and 250,000 people as recommended by WHO; these 'Evaluation Units' generally contained 20 - 30 sampled clusters.

1.2 REPORT STRUCTURE

The primary target audiences for this report are DFID and the GTMP Consortium and Advisory Committee, though it is expected that the report will be read by other interested parties who have been involved in a range of capacities within the project as well as those conducting mapping for, or intending to map, other diseases. The remainder of this report is structured as follows:

Chapter 2 – Methodology: This section addresses the evaluation purpose and scope, and explains the design and methods for data collection, with acknowledgement of the evaluation's potential limitations.

Chapter 3 – Results: Findings and interpretation are framed according to pre-established evaluation criteria and questions, as outlined in the Evaluation Matrix (Appendix 3).

Chapter 4 – Conclusion: This section summarises the evaluation's key findings.

Chapter 5 – Recommendations: Some recommendations are made for the planning of future disease mapping activities.

2. Methodology

2.1 EVALUATION PURPOSE AND SCOPE

The stated purpose of end of project evaluation was to establish the extent to which the project has successfully mapped trachoma in the project countries in line with the project Logframe in an efficient and cost effective manner. The evaluation also provided the opportunity to generate a reference document detailing the achievements and challenges of the project, overall lessons learnt, and value for money offered. The evaluation explored the broader impact and implications of project activity, including added value, and considered opportunities for maximising learning from the project's experience during the next critical stage of trachoma elimination. Some recommendations for consideration when planning future mapping projects have been made.

In order to generate the information needed to achieve the evaluation aim, seven evaluation criteria were suggested in the Terms of Reference (ToR, Appendix 1):

- ❖ Relevance
- ❖ Effectiveness
- ❖ Efficiency
- ❖ Scalability
- ❖ Impact
- ❖ Sustainability
- ❖ Coherence/coordination

These criteria correspond with those used under the Mid-Term Review (MTR), conducted in 2014, with the aim of identifying and documenting drivers of success for replication, as well as challenges to be addressed during the key scale up phase of trachoma elimination. Under each criterion, the ToR provides a series of questions which guided the overall scope of the evaluation and data to be collected; these are presented in the Evaluation Matrix (Appendix 3).

2.2 DESIGN AND METHODS OF DATA COLLECTION

The evaluation was conducted retrospectively, incorporated both a process and impact-orientation, and was largely qualitative in nature. Sampling of informants was purposive. Data collation and collection were conducted in three key ways as outlined below and then described in further detail:

- ❖ A documentation review, of both internal project documentation and relevant literature
- ❖ Primary data collection from a series of in-depth interviews (IDIs) and Focus Group Discussions (FGDs) with a range of key informants, including from two countries identified by Sightsavers, Nigeria and Tanzania, and one additional key informant from Malawi, as well as those active at the global level, specifically principals at Sightsavers, WHO and other members of the GTMP Advisory Committee
- ❖ Discrete quantitative analysis of project achievements based on Logframe data

At the outset, preliminary orientation meetings took place with global GTMP staff to provide further background on the GTMP, to discuss the context and purpose of the end of project evaluation and to clarify output and methodological expectations. The first

phase of the actual evaluation constituted a review of documentation in order to better understand the scope and process of implementation, as well as challenges and recommendations for the strengthening of the project over the three year period, particularly since the MTR, and to inform the development of a detailed scope of enquiry for the collection of primary data. The list of documents reviewed can be found in the References section. The documentation review was somewhat iterative with documents revisited and additional information reviewed over the course of the evaluation in order to build an understanding of the project and to cross-reference findings.

The primary data collection enabled the evaluator to explore the effectiveness and impact of the GTMP from a range of stakeholder perspectives. Sampling of both in-country and global level informants was purposive, based on their key role in the project as well as informant availability, and was done in collaboration with Sightsavers. The aim was to include informants with a range of perspectives, roles and experiences in the project; three categories of informants were suggested which broadly relate to field, national and global level informants:

- ❖ Mapping activity staff (graders and recorders, graders and recorders trainers, supervisors)
- ❖ In-country implementing partner and Sightsavers staff, MoH staff and other national level key informants
- ❖ Global Sightsavers staff and other global level key informants

In total, 40 interviews were conducted; details of interview numbers by informant category are provided in Table 2. A full list of informants is included in Appendix 4.

Table 2: Interviews conducted under the GTMP end of project evaluation

	IDIs	FGDs
Global level informants	12	-
National level informants		
<i>Malawi</i>	1	-
<i>Nigeria</i>	11	-
<i>Tanzania</i>	7	-
Field level informants		
<i>Nigeria</i>	4	1
<i>Tanzania</i>	2	2
Total	37	3

Both the IDIs and FGDs were semi-structured in nature, ensuring a focus was retained on the suggested scope of enquiry in order to address the set evaluation objective, but enabling new and potentially unexpected perspectives or ideas to be raised. To inform the scope of discussion, a detailed topic guide was developed (Appendix 5) which drew on the review of documentation, and which elaborated on the questions provided for each evaluation criterion within the ToR. Input was sought from country offices in both Nigeria and Tanzania to check appropriateness and suitability of the questions to the local context, and consequently, minor adjustments were made to the tool prior to the initiation of field work. The first key informant interview in Malawi also provided an opportunity to pre-test the validity of specific questions included in the tool. The scope and wording of the questions in the topic guide further evolved over the course of primary data collection as the tool was tested in practice.

All IDIs were conducted on a one-to-one basis (mostly in person though some were conducted by phone or Skype) in an undisturbed environment to facilitate a relaxed sharing of opinion in a confidential setting. Informants were grouped together where it was considered practical or likely to enhance the quality of opinion provided, whilst not adversely influencing respondent candour. Broadly, FGDs were conducted with field level mapping activity staff and IDIs with national and global level key informants. All interviews were recorded using an audio-recorder with notes written for back up. A 'fair notes' transcription approach was adopted, whereby key points and quotes were documented in an Excel file according to sub-themes arising from the data. Informed consent was obtained from all informants, guided by the Information Sheet and Consent Form (Appendix 6).

Thematic (content) analysis of interview data followed the 'framework' approach¹⁴, whereby a pre-existing coding frame was developed based on the evaluation criteria to which themes were added on review of the data. Corroboration was sought across informants and a triangulation approach across project documentation and FGD/IDI data.

In order to assess project effectiveness and efficiency, data in project reports were also reviewed quantitatively, with particular focus on Logframe indicators. This analysis provided a platform for the discussion in the Results chapter which mostly draws on documentation and qualitative data.

2.3 SELECTION OF SITES FOR FIELD REVIEW

Nigeria and Tanzania offered two comparative mapping contexts. Nigeria was selected because of its large population size and the large number of evaluation units mapped by the GTMP. Together, Nigeria and Ethiopia (which was selected for field work during the MTR) reflected more than 50% of global mapping needed at the time of GTMP's launch. Nigeria also offered an example of a country which had conducted integrated Neglected Tropical Disease (NTD) mapping, leaning on the GTMP platform and processes. Tanzania also presented a different funding context given it was supported by USAID; during the course of the project, the high demand for baseline mapping resulted in a collaboration with USAID who funded the GTMP with approximately £6 million (channelled through grants managed by Family Health International 360 [FHI 360] and the Research Triangle Institute [RTI]). The additional inclusion of Malawi arose from convenience as the evaluator visited the country by chance in the month prior to the start of the evaluation.


2.4 LIMITATIONS

Both Tanzania and Nigeria, while chosen for good reasons, were examples of higher capacity countries. A wider variety of opinion could have been generated if countries with lower capacity to support the mapping activity had been included. The GTMP was a large, global project which supported mapping across 35 countries and as such, while the population mapped in these two countries represented a notable proportion of the total, the range of implementation contexts and approaches could not easily be reflected in this evaluation.

¹⁴ Pope C, Ziebland S, Mays N. Qualitative research in health care. Analysing qualitative data. *BMJ*. 2000;320(7227):114-6.

3 Results

3.1 RELEVANCE

 **Excellent.** This rating is assigned based on the universal agreement across informant groups of the importance and relevance of the GTMP in the context of the global aim to achieve elimination of trachoma as a public health problem by 2020. Respondents considered relevance in terms of both project design and project achievements, encompassing both direct project outputs and added-value generated by the project, which together strengthen prospects for achieving elimination in at least some countries in the next critical period of SAFE strategy implementation.

There was broad consensus across all informant groups that the objectives and scope of the GTMP were highly relevant to the current global target of eliminating trachoma as a public health problem, as outlined by GET2020. There was wide appreciation of the importance of generating knowledge about the geographical distribution of trachoma so as to facilitate the use of current and future resources as efficiently and effectively as possible towards further reduction in trachoma prevalence globally. A number of, in particular global, informants raised how the data generated under the GTMP have shown the prevalence of TF to be less than previously thought across a number of countries, and emphasised the value of this enhanced knowledge for streamlining future efforts.

"[The] GTMP offered a huge contribution to the elimination of trachoma in 2020. There is no way you could [begin] to know where to deploy resources without knowing where the disease was a problem. Before the GTMP, we had over-estimated trachoma and I'm not sure if we were certain where exactly to deploy what...If you think the 25 years before now, we were not able to map half of what the GTMP was able to do. It was a major, major contribution." (Global level informant)

All informants who were asked whether the design of the project was considered appropriate given the global elimination goals gave positive responses, with no significant suggestions to design changes. The GTMP's simple design, focused distinctly on the mapping of TF and TT in all suspected trachoma endemic districts globally, and the emphasis placed on standardisation in terms of activity planning and delivery has enabled a fast and efficient roll out of mapping activities. Despite the continued focus on a standardised approach, the project has remained flexible and adaptable to specific country contexts which has also contributed to its relevance at national level and supported country buy-in, critical for the next stage of elimination. That the project is essentially designed as a 'service offered', for countries to proactively request and engage with, was also an important design aspect as it justified a strict adherence to set, high quality standards and facilitated clear role definition among involved parties. The prioritisation of demand creation efforts at the beginning of the project was important in building initial momentum.

A minority of respondents suggested that it may have been valuable to incorporate a more educational component into the mapping process, such as the sharing of key messages on healthy, hygienic behaviours. However, this was beyond the focused brief of the GTMP, and any programmatic additions would have added significantly to the mapping time allocated, overall cost and elements to quality control, thus likely affecting achievement against the project's core objectives. In any case, by including an overview of the SAFE strategy in the training, the field teams had enough background to highlight

key messages as relevant to discussion with household members without detracting too much from the core focus of the activity.

While the GTMP's effective design was key in considering its relevance to global targets, informants also placed high relevance on the project due to the extent of its achievements. Specifically, the amount of quality data generated from the mapping of more districts than was either planned or anticipated, and the generation of additional funds for further mapping (i.e. from USAID) was mentioned across global and national informants. Project achievements are covered in more detail in the Effectiveness section.

"GTMP has achieved so much. GTMP has moved a concept towards something feasible." (Global level informant)


The outputs of TF and TT prevalence, usually powered to the district level, enable a clear link to trachoma action planning as relating to SAFE interventions; this point was emphasised across all informant groups. In particular, the submission of TF prevalence data within applications to ITI for Zithromax (in the event of specific opt-in from the respective MoH to do so) was heralded by many, in particular national level informants.

Many informants also spoke to the GTMP's contribution beyond planned outputs and activities, which have strengthened prospects for achieving elimination. Notably, these include the extensive capacity building (beyond the specified project output which is focused on the training of surveyors and analysts), the momentum generated for trachoma control activity at both global and national levels, and the strengthening of effective collaboration within the global trachoma community, which has brought together a range of important skill sets.

"It has not been possible to dream about 2020 without [the] GTMP. It has brought together lots of great people and great skills. A lot of good people are now engaged in trachoma at the global level." (Global level informant)

The timing of GTMP enables trachoma control programmes to complete at least one phase of interventions in high prevalence areas before the 2020 elimination target date, making it feasible for some countries to achieve elimination of trachoma by this point. The next two or three years for trachoma elimination are critical to enable effective consolidation of recent work and to build on the momentum of political and programmatic energy generated under the GTMP.

3.2 EFFECTIVENESS

 **Excellent.** This highest possible rating is assigned based on the clear surpassing of targets against every indicator as outlined in the Logframe, including the number of districts mapped and the number of people trained under the project. These achievements reflect the overall effectiveness in the design of the GTMP and systems behind its delivery, as well as the effective management and coordination of fast scale up, which could all be closely built-on for future disease survey activity. A number of factors which appeared to be key for driving project effectiveness have been highlighted. Some challenges and lessons learnt from project implementation which may be useful when planning activities of comparable scope have also been included. While important to consider, they have not detracted from the fundamental achievements of the GTMP and thus do not affect the high rating.

3.2.1 Quantifiable achievements

Formally, the effectiveness of the GTMP must be measured against the planned outputs specified within the Logframe (Appendix 7). Achievement against each indicator is discussed below with specific details and expanded context information included in the Logframe itself. It should be noted that project impact, in terms of the global elimination of trachoma by 2020 (impact indicators 1 and 2), is not yet measurable given measurement relies on comprehensive implementation of the SAFE strategy in the 3-4 year period following the end of the project.

Project achievement has been impressive; GTMP has consistently achieved above target against each indicator and milestone. In total, 49 countries¹⁵ consulted the GTMP regarding baseline mapping, suggesting successful promotion of the mapping opportunity. However, mapping was not required or possible in some countries, due to either insecurity or a lack of a clear evidence base indicating trachoma to be a public health risk and thereby removing the rationale for undertaking mapping¹⁶. From July 2012 to January 2016, 1,546 suspected trachoma endemic districts¹⁷ were mapped (output indicator 1.1) across 29 countries, predominantly in Sub-Saharan Africa, as well as in the Middle East and North Africa, Asia and the Pacific, and the Americas, as outlined in Table 3; this far exceeds the project target of 1,238 districts. This scale of mapping enabled the examination of 2.6 million people, representing a population of 224 million and requiring the processing of over 60 million data items¹⁸. This impressive achievement reflects a higher than anticipated demand for baseline mapping which also resulted in a collaboration with USAID to enable wider coverage; USAID have to date funded trachoma baseline surveys using GTMP systems, methods and processes to a value of approximately £6 million through partnerships with FHI 360 and RTI. By the end of the project, 100% of GTMP generated data have been cleaned, processed and approved by respective MoHs (output indicator 3.3). The approved data has been added to the

¹⁵ GTMP consulted by 20 countries in addition to the 29 countries mapped with GTMP methods. Total = 49 countries

¹⁶ a) Insufficient evidence of trachoma as public health risk to warrant mapping with DFID funds (a condition of the GTMP grant is that DFID supports mapping in suspected endemic regions which pose a public health risk to gain an accurate requirement for Zithromax distribution not to prove trachoma does not exist): Angola, Botswana, Djibouti, Equatorial Guinea, Jordan, Tunisia. (6 countries)

b) On review, baseline mapping support was not required by GTMP: Guinea Bissau, Algeria, Nauru and Niger (4 countries)

c) Consultation was held with GTMP for state funded mapping: India (1 country)

d) Insecure countries (4 countries on hold, 3 with partial restrictions)

¹⁷ Districts were considered 'suspected endemic' where existing data suggested that TF prevalence in children was equal to or greater than 5%. At this prevalence, active trachoma is considered to be a public health threat. Estimations were usually based on health care records or trachoma rapid assessments.

¹⁸ GTMP end of project communication pack (2016).

Trachoma Atlas¹⁹, an open-access resource which displays the distribution of trachoma in prevalence categories (outcome indicator 1), as well as to the GET2020 database which supports its use in implementation planning, specifically quantification and applications for country level Zithromax antibiotic distribution. In the first year of GTMP, 13,984,922 doses were approved for distribution, in 2014, 34.2 million doses were approved and in the year 2015, 35.5 million doses were approved for distribution in GTMP mapped districts²⁰.

Table 3: Total countries and districts mapped under the GTMP

Region	Countries (mapped using GTMP methods)	Specific countries	Districts (mapped for baseline prevalence)
Sub-Saharan Africa	16	Benin, Chad, Cote d'Ivoire, Democratic Republic of Congo, Eritrea, Ethiopia, Guinea, Malawi, Mozambique, Nigeria, Republic of Congo, Senegal, Tanzania, Uganda, Zambia, Zimbabwe	1,146 districts
Middle East and North Africa	3	Egypt, Sudan, Yemen	213 districts
Asia and Pacific	8	Cambodia, Fiji, Kiribati, Laos, Pakistan, Papua New Guinea, Solomon Islands, Vanuatu	183
The Americas	2	Mexico (Central America), Columbia (South America)	4
Total	29		1,546

Over the course of the project, GTMP technology and tools were developed to measure both the prevalence of trachoma and WASH. The standardised survey methodology, the process of grader certification, android smartphone technology and rigorous data cleaning were used across 29 countries and by 30 MoHs (output indicator 1.2)²¹. A total of 95% (1,546) of districts were mapped during the time period of GTMP using these new tools (output indicator 1.3), comfortably above the target of 90%. The tools have also been used as a basis for conducting some small scale integrated NTD surveys; this is discussed further in the Impact section.

The total number of graders (surveyors), recorders (analysts) and epidemiologists certified for survey collection under the project (output indicator 2.1) was by 31st December 2015, 1,386 people which is approximately double the original end target of 600 people. This reflects the significant scale up of project activity to more countries and with larger teams than was originally anticipated; between the period of GTMP DFID supported mapping (December 17th 2012 to 11th January 2016) a total of 611 survey teams have collected data using GTMP methods, some travelling to the world's remotest of locations. However, this number may not reflect the level of international collaboration and overall capacity building under the project: it is estimated that approximately 2,500 people have worked on GTMP worldwide²².

¹⁹ The Trachoma Atlas, which is managed by the International Trachoma Initiative (ITI), aims to provide up-to-date and publicly accessible maps of the current distribution of trachoma. It was a condition of GTMP engagement that, once data cleaning, processing and analysis had been approved by the MoH, prevalence categories would be displayed on the Atlas and thus the data would be available for use by all partners in elimination efforts.

²⁰ Source: the GET2020 Database, managed by the International Trachoma Initiative.

²¹ Tanzania itself includes two Ministries of Health: mainland Tanzania and Zanzibar.

²² GTMP end of project communication pack (2016). (Source Sightsavers).

The regular attendance of members at Advisory Committee meetings demonstrates high levels of project commitment. Each year, attendance has been above target (8) (output indicator 3.1); a range of 9-11 members have been in attendance along with a range of 21-27 representatives from interested parties, suggesting broad support and engagement throughout the global trachoma community. The number of implementing agencies actively mapping trachoma (8 in year 1, 17 in year 2, and 11 in year 3) (output indicator 3.2) was also above target each year, also reflecting the larger than anticipated scale of mapping activity (Appendix 8).

Finally, public communications activity has also been extensive, important for generating awareness of and support for the project and in advocacy efforts targeting enhanced financial and political commitment to the elimination effort. The project achieved increasing number of media hits (output indicator 3.4) each year, all above target, likely reflecting the programmatic and political momentum generated by the GTMP. Since the start of the project, Sightsavers and partners have achieved >118 media pieces against the project target of 97, >38 national/international media hits against the project target of 38, and 8 hits in collaboration with USAID against the project target of 3. Communications activity was particularly intensive around project close out; some highlights included an article in *The Economist* (readership of 6.6 million), radio slots on the BBC 'From Our Correspondent' and BBC World Service, an article and digital map on 'scidev.net' which received in excess of 1,800 unique page views and twitter and Facebook reaches of more than 127,500 and 249,700 respectively, and a Reuters article which was picked up by Fox Health News and the Daily Mail Online.

Collectively, the GTMP's impressive achievements were reflected in opinion across all informant groups; there was consensus that GTMP was successful in meeting its objectives, with praise of the project offered in abundance.

"The importance of GTMP cannot be over-emphasised. You cannot write the history of trachoma control in Nigeria without giving GTMP a big role." (Mapping activity informant)

"The project has been very successful. From the perspective of mapping trachoma for the last 15 years, there were days when people thought that it would not be possible to map across the country, let alone the world. Those days have changed. We now appreciate the value of proper data for planning. This was the first really global mapping project... GTMP worked because people believed in [the] GTMP and worked hard to make it realised." (National level informant)

"Accomplishing something of this scale - with a wide variety of contexts, languages, cultures etc. - the fact that it was standardised - was a major accomplishment." (Global level informant).

3.2.2 Factors driving project success

A number of key factors appear to have driven project success:

❖ A standardised yet flexible approach

A key challenge of the project was how to achieve scale without compromising quality and to implement with a high level of consistency and to do so, a standardised approach was critical. GTMP emphasised standardisation throughout the planning, implementation and dissemination phases, including as relating to budgeting, partnership agreements, protocol development for ethical approval, micro-planning guidance, detailed introductory

and training packages, certification of the survey team (graders and recorders), the clinical examination of trachoma (as per WHO guidelines), the capture of the data using android phones, data cleaning and data approval, as well as guidance for publication. This level of standardisation has enabled the project to work at unprecedented speed, unanticipated scale, at high levels of efficiency and to maintain high quality standards.

That standardisation was achieved to the extent that it was also due to a flexible approach in the planning stages:

“We recognised that we wouldn’t know whether the standardisation would work at the beginning - it was a learning process. We had an open-mind. We considered all the tools as version 0 - as we used them, they were effectively stress-tested for usability and constantly adapted. The flexibility...was proved right – the changes did settle down.”
(Global level informant)

Interestingly, as tools and approaches were increasingly standardised, this seemed to have enabled clarification on opportunities for specific adaptation at the country level, for example, the scope for making minor adjustments to the tool in response to country demands (i.e. Tanzania added a small number of questions to the survey tool to enable closer comparison with previous mapping surveys) and integrated mapping in countries like Nigeria (discussed more in the Impact section). While standards were set, a level of flexibility throughout the project allowed the incorporation of lessons learnt with the overall aim of continually improving quality and efficiency, such as the introduction of the recorder training certification mid-way through, and changes to the structure of training for graders to focus first on certification before the onset of the actual training. The flexibility of funding also appeared to have been critical; staff for example were able to quickly respond to bottlenecks in-country by making visits to provide direct support. The willingness of DFID to engage in complex issues as they arose and to collaborate to identify appropriate solutions was also highlighted by some global level informants as valuable.

❖ Development of a ‘gold standard’ data system

The ‘LINKS’ data system appears to have developed a ‘gold standard’ for trachoma prevalence estimation. The use of the android phones built in some basic quality controls on the data which were applied during both data collection (i.e. software did not permit progression to the next page until prior fields were completed), as well as on submission (i.e. TT identification among under the 15 age group was flagged for clarification). Depending on the strength of internet connectivity, data were usually uploaded within 1-2 days, which also enabled any errors, such as in cluster coding, to be resolved while teams remained close to survey sites. Multiple informants mentioned the Global Positioning System (GPS) verification of survey location as key for promoting quality in data collected as the survey team were aware they were being “*watched*”. While MoH staff were commonly sceptical about electronic data capture and cloud-based data storage at the beginning, seemingly related to a perceived loss of control of the data and discomfort with an unfamiliar data collection approach, by the end of the project the majority of informants praised the approach for its efficiency and the quality of data acquired. The resultant perception of enhanced data integrity was ultimately important for country engagement with the data and use in trachoma action planning.

❖ High standard of training

As was identified by the MTR during the course of the project, both training materials and delivery appear to have been of the highest possible standard. All materials were tested, including through a pilot training session in Ethiopia in 2012, though changes continued

to be made throughout the course of the project as experience was increasingly applied. The training of carefully selected international master trainers, all experienced and prominent ophthalmologists, ensured a high level of consistency and quality in training. That this core group appeared to garner a level of respect from trainees which may not have been possible if less well-known trainers had been used may have also supported learning. The curriculum was focused and relevant to the field work and significant emphasis was placed on practical application of the skills needed to conduct high quality mapping, in particular through the 'child line up' approach (for which passing relied on inter-observer agreement with a GTMP-certified trainer acting as the gold standard) as well as the grading of trachoma in a sample field site. On completion of the training, a number of mapping activity staff who had been diagnosing trachoma for years reportedly talked of the extent of misinformed trachoma diagnoses they realised they had made in the past. The certification process, a prerequisite for recruitment for the mapping activity, was claimed across informants to have boosted performance and engagement with the training, given the introduction of a goal-orientation and level of competition. The pass rate for graders approximated 70-80%, with improved pass rates from year 2 to 3, thought to be connected to improved identification of suitable grader candidates and continual improvement in the grader training²³. Although failure to pass the training may have been disappointing for individuals, the certification process was generally perceived across informant groups as testimony to GTMP's commitment to data quality, as was also found during the MTR. It was further suggested that the combining of training for both graders and recorders helped build a collaborative partnership within survey teams through enhanced understanding of each other's roles. A few informants did suggest that the recorder training curriculum and training cascade process were given less focus than those for graders and as such, were less strong in comparison.

❖ Consistent and responsive technical and management support

The GTMP appears to have been driven by effective decision making in part led through an engaged Advisory Committee constituting high calibre individuals from NGOs, academia, the donor community and the pharmaceutical industry. The Advisory Committee's scientific focus and attention to well documented discussion, outcomes and action have enabled good responsiveness to issues arising and a valuable reference for future use. The Chief Scientist appears to have played a vital role in ensuring quality in all stages of planning and in reviewing mapping data. Project epidemiologists also seemed to have maintained close communications and control over the training, sampling and mapping activities.

The rigour in overall project management, led by Sightsavers, has also been a key factor. From the outset, the operations component was prioritised alongside technical input. The emphasis on partner agreements, budget scrutiny and support to micro-planning introduced a level of efficiency (essentially the money could go further) and enabled a fast roll out across multiple countries simultaneously.

"[GTMP] was run very much as a 'business'. We had to convince the partners that we had this time bound activity - and we had to get it right. Even internal contracting to our own offices - they got treated the same way. It was a different approach than we have used before." (Global level informant)

❖ Partnership and communication

A strong consortium approach has been a critical ingredient of GTMP's achievements. While some minor collaboration challenges at the beginning of the project were reported, understandable given the scale of project and sense of urgency in initiating

²³ GTMP Annual Review Year 3 (1 July 2015).

implementation, the strong leadership of the consortium by Sightsavers, individual commitment of team members and the simple focus of the project appeared to strengthen the overall partnership. That three of the key staff, responsible for the scientific, operations and data management components, remained engaged throughout the project enabled some consistency in overall leadership. The development of a standardised approach also required a high level of compromise among the GTMP partnership, which may have also set the tone for effective collaboration early on. That the trachoma community is small, many personal relationships among partners globally were already formed, and the community is “*used to being neglected*” (due to the nature of working on a NTD), also appeared to bring people together, orientated around a common goal. The strength in partnership appeared to facilitate the detailed project design which was considered both appropriate and relevant, a fast roll out at scale and to boost communication across key activity components (i.e. planning, sampling, data collection, data management).

❖ Ambition and hard work

The ambition of key individuals and hard work of people across the project should not be overlooked. That there was an open-mind to new and possibly unfamiliar approaches and way of working was critical to the bold implementation planned and outputs achieved. It should also be noted that work ethic, effective management and clarity in roles and responsibilities are usually linked – these were all apparent under this project.

"The ambition of the project to have the guts to dream something like this up. It took both dreamers and risk takers." (Global level informant)

"The other key thing we agreed we needed was momentum - to push hard and fast and big and not let ourselves get sucked into low risk and low scale. But push at a large scale and thus maximise cost effectiveness." (Global level informant)

3.2.3 Implementation challenges/ lessons learnt

While perhaps more modest than the project achievements, the evaluation highlighted some key challenges and lessons learnt arising from implementation of mapping activity which may be useful to consider when planning similar mapping activities.

❖ Poor infrastructure

The evaluation emphasised the importance of both effective community sensitisation and mobilisation and detailed micro-planning, in collaboration with the local implementing partner and the MoH, and ensuring appropriate consideration of context specific terrain and access challenges, in order for the data collection to fully adhere to sampling plans. From the evaluation sample, this seemed to have been done generally well. Where there is a requirement to cross water, it would be important to consider adequate protection for both people, through the provision of life jackets (non-swimmers may be likely), and equipment, specifically a waterproof box or bag for the phones.

"We are trying to reach the poorest of the poor. They are not always in the places where you think they will be found. Whenever you take a short cut, it will be the poorest who misses out. The [community leaders] don't always take us to those people suffering - they think of us as government people who are on a timeframe. You may need to walk 20 or 30 minutes to get to the edge of the village. Even [community leaders] don't go to some households. I say where other people don't go, there are opportunities for us. This is the challenge for trachoma." (National level informant)

❖ Human resource capacity

In countries with significant capacity challenges, additional technical resource was provided to supervise mapping projects (i.e. Chad, Zambia and Vanuatu), or additional human resources added to strengthen NGO implementing partners (i.e. Sudan, Zimbabwe, Pakistan and South Sudan)²⁴. The limited availability of ophthalmic expertise at district level to train as graders was challenging in some countries and required recruitment of graders from different districts. Given the intensity of mapping activity and the human resources required, district level ophthalmic services could be left stressed, and in some cases (i.e. Malawi), the MoH requested some graders to return to service. Where ophthalmic personnel are limited, some national informants suggested mapping be conducted less intensively over a longer period. A few global informants reflected that the pool of master trainers could have been larger to effectively maintain quality through fast project expansion; standards were reportedly compromised on a small proportion of trainings due to low core trainer availability.

On a global level, steps were taken at mid-point to address some key human resource limitations, including recruiting a full time Operations Director, assigning a full time Risk and Finance Manager, an additional epidemiologist to support MoHs with data interpretation and publication, and a senior epidemiologist contracted to provide technical advice and support, in particular relating to data use in trachoma action planning. While these were valuable additions, staffing on the project remained tight; whilst not seriously detrimental to project quality, some standards were reportedly compromised at times (i.e. timing of feedback to survey teams was slower over time) and some staff were put under considerable stress.

❖ Security

In total, 325 suspected trachoma-endemic districts in 17 countries²⁵ remain currently inaccessible due to insecurity. As these districts become secure and funding is made available, GTMP baseline mapping methodologies (training, epidemiology and data management) are hoped to be made available through the new Tropical Data service, a WHO-led initiative which will support the future capture of trachoma related data using internationally agreed standards²⁶, and considered to essentially represent the 'next phase' of the GTMP. Security situations can change quickly and ongoing monitoring is critical. Solutions must also be context specific; security issues in northern Nigeria for example were alleviated through the presence of armed policeman at identified community points. The importance of culturally appropriate sensitisation strategies were also highlighted across national level and mapping activity informants (see below).

❖ Community sensitisation

Effective sensitisation is critical to encourage community support for and engagement with the activity, to enable quality data collection and to maintain good security. In general, community members were reportedly open to being interviewed and examined and there were few reported refusals. Some informants raised though that community sensitisation was inadequate in some places with communities not having been made aware of the survey team's arrival. It is recognised that the appropriate balance must be found, especially in remote areas: pre-visits to targeted communities are important, but if communication is too broad (i.e. through radio announcements), people beyond the sampled communities may travel to survey sites, raising expectations, compromising the epidemiological validity of sampling, and potentially causing a security risk.

²⁴ GTMP Annual Review Year 3 (1 July 2015).

²⁵ Insecure (country followed by district count): AFRICA: Burundi (22), CAR (7), Chad (2), Ethiopia (22), Kenya (1), Nigeria (48), Republic of Congo (17), and South Sudan (35), DRC (1), Eritrea (3) (3 countries on hold, 7 with partial restrictions). EMR: Afghanistan (64), Iraq (16) Libya (1), Pakistan (16), Somalia (19), Sudan (13) and Yemen (38) (4 countries on hold, 3 with partial restrictions).

²⁶ GTMP end of project communication pack (2016).

❖ Operational supervision

Field supervisors were assigned to monitor and guide seven or eight teams in the field, accompanying teams for complete or half days and/or spot checking other teams.²⁷ However, a number of informants across groups suggested there was inadequate supervision in some settings, as well as a focus on technical over operational supervision. In a few extreme cases, this resulted in data being discarded. This limitation was recognised during the project and a training manual for supervision was introduced in 2014. The importance of “*over-dosing*” on the supervision in the early stages, when graders and recorders may have some remaining doubts and when bad habits could creep in, became apparent. The importance of the MoH in effectively overseeing data collection and being able to defend the quality of the data was found to be key for promoting country ownership.

"There is a clear supervising framework within the GTMP but it is focused on the technical supervision. But we also needed logistical supportive supervision - is the vehicle leaving on time? Are the drivers behaving? The MoH need to be able to stand by their data - there are always things which go wrong and which need to be checked."
(National level informant)

❖ Data - timeliness in the later project phase and approval

Two issues as relating to the data were most commonly raised across informants: (1) the timeliness of feedback during the later phase of the project, in comparison with the initial phase and (2) lack of support for in-country data approval.

As has been mentioned above, over the course of the project, both responsiveness to queries during data collection and sharing of mapping findings with countries reportedly got slower, in particular causing challenges during the mapping when speed of response was critical. It was suggested this was largely due to the data team being stretched, but that there was also a perception challenge: at times, the ‘stacking up’ of necessary queries between the data management and field teams could inherently cause delays in data flow through the system.

The data approval process has been considered important within the GTMP given all district-level prevalence category data are available as a public resource via the Trachoma Atlas, and to further encourage in-country ownership of the data. Two data approval steps were initiated; firstly, an authorised in-country user conducted a detailed review, looking at sample size and geography, age and sex distribution of those examined, and the log of data cleaning, and secondly, the authorised in-country user reviewed the prevalence estimates, approving the appropriateness of the automated analysis, and authorising release of district-level prevalence category data to the Trachoma Atlas. This was done via the GTMP website using an assigned password. The process of data approval however was not a focus in the initial training, and as such the person assigned by the MoH to approve the data was not targeted for training. This seemingly contributed to confusion over the approval process and slow approval of data in some countries, and reflected missed opportunities to engage further with the data to enable wider interpretation and use. The ramifications of approving important data in country were perhaps also underestimated, especially where capacity was low. While technically beyond the scope of the GTMP (the data service is focused on support to data collection, cleaning and feedback of findings), this wider support was clearly in demand by countries. The contracting of two epidemiologists to support data interpretation, use and publication, and a higher number of in-country visits towards the latter half of the project with the aim of addressing this gap, likely helped though data

²⁷ Evaluation Report: Mid-term Review of the GTMP, June 2014.

approval could have been given more emphasis from the outset, including being incorporated into the training curriculum. Based on this learning, it is understood that Tropical Data will aim to be more 'client-focused' in this area i.e. data approval will be offered by email as well as via the website, and there will be more transparency in data management. The RTI data team suggested that country level requests to be involved in analysis also indicated misunderstandings around the data service provided by GTMP; in essence, 'analysis' was not really done - the report (analytic file) just provided a summary of the data (villages visited, TF and TT prevalence, frequency of water sources etc.). Further insight into the data management processes may have been useful at the country level.

"One thing we never did well was training the Ministry or whoever the authorised user was in reviewing and approving the data. That made it a little bit challenging to implement what is really a great opportunity to move people towards more of a data-driven place. You could download the data but it was really the reports which allowed you to consume the data. Without any understanding of even basic statistics, it may be difficult to know how to approach it." (Global level informant)

"It turned out there was this disconnect. It seemed simple - just about clicking a button - but when it came down to it, the ramifications were huge - you are approving the data across the country - I think we glossed over that. It is reasonable that the countries want to look more closely at the data and understand them and so we need to support that." (Global level informant)

Finally, it was raised in Tanzania that challenges arose with the formatting of the tool during the process of translation into Swahili which caused some minor challenges during data collection; this may have also been the case with other translations. More detailed exchanges with the in-country partner during the translation process and specific pre-tests of any translated tools could have alleviated this.

3.2.4 Mid-term review recommendations

The MTR was finalised at the beginning of year 3 (June 2014) and scored highly across all evaluation criteria, with the potential impact of the GTMP described as "enormous"²⁸. Recommendations were focused on the introduction of project management tools with emphasis on project tracking and forward planning, maintaining regular communication within the core partnership so as to effectively coordinate activities during further scale up, the adding of data management and epidemiological human resource capacity, further consideration of the provision of trichiasis surgery during mapping, provision of further capacity building to MoHs in data sharing and use, seeking of expert input on the use of WASH data for F&E intervention planning, and an emphasis on publication and dissemination during the final months of the project. A detailed documentation of the evaluation recommendations and management response, including an action plan, is included in Appendix 9. It is understood that the action plan has been monitored throughout year 3 and all action has been taken as specified in the action plan. The selection of global informants who were asked about the MTR and uptake of its recommendations emphasised the value of the evaluation, particularly in highlighting the need to introduce a more rigorous project management orientation.

"Some of the recommendations were around tools and templates. It was great that the MTR highlighted a bit of a gap there. Having [the] MTR was helpful as it got people brought into that. People are working in different sectors and have different ways of

²⁸ Evaluation Report: Mid-term Review of the GTMP, June 2014.

working. They were simple things i.e. have a training schedule, access to information etc.” (Global level informant)

“The MTR was hugely influential. Because of the pace, everyone external to the programme assumed we were already there but there were some coordination issues - given the scale up to more countries, the second half was going to look different than the first. We had to regroup and re-energise and this helps us do this.” (Global level informant)

“The Sharpest criticism” in the MTR was given to the lack of provision within the project to support trichiasis surgery, despite TT surgeon availability during mapping activity implied in the training manual. The management response emphasised partner and MoH support to plan for trichiasis surgeries, the adding of a question to the survey tool to identify TT cases already known to the system, and a request to the International Coalition for Trachoma Control (ICTC) to consider TT surgery cost analysis. To clarify on responsibilities, DFID also recommended a clear statement from GTMP that NGOs and governments hold both financial and logistical responsibility for providing trichiasis surgery to individuals with TT identified in the surveys²⁹, though actual follow up has likely varied significantly depending in large part of funding availability. In this evaluation, the potential ethical challenge of not providing TT surgery was highlighted as a modest concern among just a few mapping activity informants, suggesting perception of this issue has evolved.

3.2.5 Sharing and dissemination

As relating to the original project design, the GTMP provides the MoH with a post survey report focused on key outputs (the cleaned, analytic file) for in-country review and approval, as well as the raw data (uncleaned). As already indicated, 100% of countries mapped have received and approved their cleaned data. At the central level, there appears to have been a very good structure for storing the data and making it accessible to countries, notwithstanding some challenges with the approval system and some minor timeliness issues as already discussed. The data, once approved, are displayed according to prevalence categories in the Trachoma Atlas for public reference; the data from all GTMP surveys are now available on the Atlas. On the request of countries, quantifications are then made for proposals to ITI for Zithromax (donated by Pfizer Inc.), reflecting impressive efficiency; this can be considered the primary use of the data and is reportedly of enormous value to countries given it also lessens their workload.

“I think we have changed the paradigm now. In the past, you will collect project data but no one would really know about it - you wouldn't be able to see the progress of the global effort as easily as you can within GTMP. It would be hard now to go back to siloed efforts.” (Global level informant)

Further sharing, dissemination and use of the data has been very much considered the responsibility of the countries themselves given the GTMP data are ‘owned’ by the in-country central or regional MoH. As such, there appears to have been a significant range in country level sharing and dissemination efforts. From the selection of national and global informants interviewed, it seems that more emphasis was placed on use of data for trachoma action planning than on dissemination. Dissemination at national level was commonly through meetings held with partners and relevant ministry departments (and sometimes including representatives for WASH activities), though depended on availability of funding and sufficient allocation of priority. Formalised printed reports were

²⁹ Minutes of the 8th Project Advisory Committee meeting, Atlanta, 31 July, 2014.

rarely developed likely due to a lack of funds or support, though may have facilitated dissemination of findings to key in-country partners, supported broader discussions around use and uptake of the data, and enabled a document for ongoing reference. The reports may have also provided a 'visual' focus for dissemination efforts. While adding to the budget, a report template, earmarked funds and perhaps some level of editorial support depending on in-country capacity could have boosted this effort. The report development process could have aided comprehensive understanding of the data, also important for the MoH to lead the dissemination process aimed at update and use.


"It would have been good to celebrate the mapping a bit more so a lot more people would know what has been done. The results were mainly emailed to partners and states – that's all we could do. A glossy report would have been nice and a large stakeholder meeting. We need to get the data out to other professionals." (National level informant)

"In hindsight, we should have put more support into this area, the 'so what'? Perhaps we should have thought more about what a decision maker would have wanted to show to a policymaker and their peers." (Global level informant)

The process of dissemination down to the regional or district level seemed to depend on usual operating or communication practices in-country, funds availability and level of decentralisation, with letters outlining relevant findings reportedly the most common dissemination means. However, this was not always done systematically and sometimes letters got 'stuck' within the system i.e. dissemination did not go beyond the regional to the district level. Feedback from the evaluation's sample of mapping activity staff also highlighted little sharing of findings with the survey teams (trainers, graders and recorders). While again adding to overall costs, this would have been motivational and contributed to their ongoing capacity building, also important given their potential involvement in future impact surveys.

Over the final year of the project, increasing focus has been given to developing peer-review publications, particularly on national level GTMP findings. These are considered 'added-value' rather than core outputs of the project. There is a significant range of in-country capacity for developing publications. In total 25 papers on the results of country specific trachoma mapping and 1 paper on the 'Perspectives of national coordinators and partners on the work of the Global Trachoma Mapping Project' were supported by GTMP epidemiologists. These 26 papers will be published in *Ophthalmic Epidemiology* in 2016. In addition, two country specific papers (also supported by GTMP epidemiologists) will be published in *PLoS NTDs* in 2016. That an epidemiologist was recruited to provide direct support to this effort enabled a valuable capacity building opportunity to countries visited and it will be important that priority is given to maintaining a capacity building approach throughout the process of manuscript development. GTMP data have also been presented quite extensively at international meetings, including a number of scientific meetings and international planning meetings (i.e. ICTC meetings). For many such meetings, MoH representatives were funded to attend and present findings, which as well as contributing to raising capacity, may have strengthened country ownership of the data. Other communication activities, mostly coordinated from the central level, will have also boosted broader exposure of the project and its achievements; these included photographic exhibitions, social media promotion, a mini-blog series on GTMP lessons learnt, and impressive press coverage, as discussed earlier in this section. Going forward, it will be important to continue to identify further opportunities for sharing and disseminating GTMP data as useful for maximising the elimination effort both at the global and national levels.

3.3 EFFICIENCY

 Excellent. GTMP has demonstrated high levels of efficiency. While exceeding all targets stipulated within the Logframe, the project has provided a good model for cost containment. The overall project strategy reflects a key focus on efficiency in its aim to maximise the use of valuable resources and informants universally agreed that the project was efficient. The project does not have a comprehensive value for money (VfM) strategy though this was not a requirement. Some solid approaches have been taken to measure VfM during the course of the project which have generated valuable experience. The unit cost analysis in particular will enable a good understanding of the costs involved, useful for comparative purposes, such as with mapping with other diseases, and for planning future disease mapping activity. While high levels of efficiency are impressive, the potential compromise which can be made with regards to capacity building must continually be considered.

3.3.1 Value for money mechanisms

The measurement of VfM was not stipulated in the project Logframe and thus there is no comprehensive VfM strategy linked to the project. However, VfM has arguably been a continual focus of the GTMP and considerable experience in measuring VfM appears to have been generated. The project has adopted a few key approaches to measuring as well as promoting both efficiency and VfM. Firstly, the budgeting for in-country mapping activity was subject to close managerial attention and control at Sightsavers. It was reported that each budget was subjected to “*around six reviews*” and substantial reductions were made over the course of the review process (“*an average estimate of around 20% - and up to 50% in some cases*” [global level informant]). This diligence was aided by an emphasis on harmonising the micro-planning process with budget development; this enabled close scrutiny of detailed activity plans and close comparison across countries which also helped identify outlier costs for further exploration.

"We look at the underlying methodology - does that tie up with what the epidemiologist would say in terms of approach? The whole nature of the mapping – essentially its simplicity - made it really easy to see specifically what this piece of work entails on a consistent basis. It was a standard methodology." (Global level informant)

A unit cost for mapping was not agreed from the outset – it was recognised that this would be learnt and the range of implementing contexts would result in a range of costs. However, the learning was increasingly applied into developing standards so estimated/acceptable ranges were later used in guiding countries on budgetary expectations as well as internal review (i.e. in relation to fuel charging, vehicle hire, per diems etc.). The simple and standardised nature of the project appeared to facilitate the development of a detailed budget template and costing benchmarks. In-country financial contribution was also encouraged (i.e. for ethical approval meetings or vehicle hire) so as to promote a sense of ownership over the budget and more careful consideration of spend.

"We made the point to countries that we were reviewing all budgets in detail...[and that] if rates were too high, no one would fund the implementation which will be even more expensive than the mapping - that really hit home." (Global level informant)

Secondly, the Sightsavers' Claim and Information Management System (CLAIMS), an online portal which provides details of initial budget versus actual spend across projects,

was further developed during the course of the GTMP to add more programmatic context to explain the financial data. The detail added included partner agreements, feedback on the project, overall activity progress (the countries which had been mapped) and any financial issues arising and proposed or initiated solutions. According to some global level informants, this system also facilitated a more robust monitoring of spend.

Thirdly, a detailed risk management strategy was developed from the outset which specified strategies for minimising or mitigating risks which could ultimately affect project efficiency and impact. Identified risks included challenges in managing interests across the consortium, diversion of resources, barriers to mapping due to security, difficulty in gaining government approval, poor quality mapping and the loss of key staff. The risk management strategy is included in Appendix 10.

Finally, the GTMP also initiated a unit cost analysis (UCA) in a sample of 12 countries to better understand unit costs and cost drivers in trachoma baseline projects that have utilised GTMP methods and systems. The aim was to generate information for use in planning and costing future disease surveys, including under Tropical Data³⁰ and will also be useful when comparing costs of mapping conducted for other diseases. The UCA showed the average cost of mapping across sampled countries as £296 per cluster. While reportedly a valuable exercise, data review has been challenging as the template for generating costing information was more detailed than the data included in the existing mapping budgets, a common challenge arising from retrospective cost analyses. This UCA is currently being written up for peer-review publication submission in April 2016; the manuscript will build on previous work by Chen et al. which also explored the costs of conducting trachoma prevalence surveys³¹.

3.3.2 Efficiency in delivery

Sightsavers' budget for the GTMP was £10.62 million, and USAID provided an estimated £6 million of funding against trachoma baseline surveys which used GTMP methods. The increased demand for mapping over the course of the project, which led to an increase in the forecasted work by 50% in year 2, led to a no-cost extension by DFID to enable completion of all approved mapping activity. All informants universally agreed that the GTMP was implemented efficiently, according to budget and set timeframes, and reflected overall value for money. That the project has achieved more than was anticipated within the agreed budget has already been discussed in the Effectiveness section.

A few factors were commonly suggested to drive project efficiency. The diligent approach to reviewing country mapping budgets, as already discussed, was key for containing costs, as well as in maintaining the agreed mapping methodology. The emphasis on standardisation across training, mapping and data management, and the introduction of an electronic data capture system, enabled a fast and efficient scale up, supported by relatively few staff. In previous mapping exercises, the data entry activity represented a significant cost and required resources to be directly assigned to regions surveyed (clerks, computers etc.)³². Under the GTMP, however, data entry was done at the time of data generation, in the field, thus avoiding all such costs. The GTMP also had the foresight to realise the cost of electronic equipment would drop over time and so significant cost savings were reportedly made from purchasing batches of phones over the course of the project.

³⁰ Unit Cost Analysis Update Note. Sightsavers. 2016.

³¹ Chen C, Cromwell EA, King JD, Mosher A, Harding-Esch EM, Ngondi JM, Emerson PM: Incremental cost of conducting population-based prevalence surveys for a neglected tropical disease: the example of trachoma in 8 national programs. *PLoS Negl Trop Dis* 2011, 5:e979.

³² Unit Cost Analysis Update Note. Sightsavers. 2016.

Efficiency was also generated through a rigorous management approach introduced by Sightsavers, which included the creation of internal deadlines to effectively manage the scaling up of activity. The use of in-country project phases (where this was applied) was also raised as a key driver of efficiency in that districts strongly suspected to be endemic were mapped in the first phase which avoided potentially protracted discussions about the total number of districts to map and controlled costs without excluding potentially endemic areas (mapping after the first or second phase tended to stop at the country's suggestion in any case).

“To build the momentum, we internally created deadlines. We communicated to the countries that we had this money and we had this chance and it was first come, first served. We wanted it to be a sought after project - to be clear that if you don't use it, you may lose it.” (Global level informant)

The overall purpose of the GTMP also speaks to efficiency: this was to accurately capture the prevalence of trachoma in health districts suspected to be endemic, not to prove that trachoma was not present in a region or country. The GTMP developed clear criteria for making decisions about where and where not to map (data had to indicate a level of suspected prevalence). From the mapping conducted, the GTMP identified over 120 million people globally who live in areas historically suspected to be endemic but where GTMP data showed trachoma not to be a public health problem³³, thus helping to reduce unnecessary public health interventions. As a result of the GTMP's high quality data management system, the number of people who became eligible for antibiotic treatment was estimated with high levels of accuracy. The inclusion of a large amount of trachoma expertise in one consortium through the involvement of a range of key implementing NGOs from the outset also ensured the collation of key available resources for planning, implementation and research for maximum impact³⁴.

In terms of actual funds spent, as expected, there was a high variance in costs across regions and countries. The UCA indicated personnel and transportation to be the two key cost drivers accounting for on average of 95% of field level mapping expenditure. Within these categories, three key variables were identified: the number of days needed to map a cluster (which depended on country specific characteristics including terrain and climate), per diem rates of field teams and the daily cost of vehicle hire³⁵. Some countries saw high variation of average mapping expenditures by cluster (i.e. Sudan and Ethiopia), whereas others saw low variation by cluster (i.e. Nigeria). Informants who discussed cost effectiveness suggested the reasons for cost variations between countries were usually clear and explainable:

“Looking at the unit costs just confirms what we knew really, that where it was very difficult terrain, it was more expensive - you needed to pay more money to people and it took longer. In Nigeria, vehicles were donated from the Ministry and so this was much less expensive than other places where a lot of funds were spent on [hiring] vehicles.” (Global level informant)

Some informants raised concern that the drive for completion of high scale activity within a short time frame may have resulted in insufficient attention to in-country capacity building and stakeholder engagement, particularly within MoHs. This is an important area of reflection which warrants focus when designing subsequent programmes of similar

³³ GTMP end of project communication pack (2016).

³⁴ GTMP Technical Proposal. Submitted to DFID by Sightsavers, 2011.

³⁵ Unit Cost Analysis Update Note. Sightsavers. 2016.

scope. However, it was generally recognised that an alternative project design which gave more emphasis to these aspects would have been unlikely to meet overall project targets. Finance staff of implementing partners also suggested challenges arose from their limited involvement in the initial stages of planning. The lack of flexibility of the budget was also reported to be a challenge by a number of national level informants.

3.3.3. Project management tools and decision making

As already discussed in the Effectiveness section, one of the most valued outcomes of the MTR was the highlighting of the importance of a strong managerial and administrative focus to enable effective mapping completion during the period of intensive scale up of activity. In response to MTR recommendations (Appendix 9), project management tools were both developed and strengthened, such as the activity tracking spreadsheet, weekly partnership call agendas, as well as key changes made to the CLAIMS portal.

"[The MTR was] very valuable for guiding activity. We were lucky under this project that we had the Advisory Committee and various sub-committees, a structure through which we can address any issues. The MTR fitted into that." (Global level informant)

In guiding project delivery according to plans and budget objectives, while simple, the Logframe is broadly considered appropriate. At the start of the project, there was no standardisation or expectation that all countries would adopt project's procedures and processes; what was required at the beginning was flexibility and the Logframe reflects this.

3.4 IMPACT



Excellent. Formally, project impact can be viewed in terms of contribution to the global elimination of blinding trachoma by 2020 and as such, is not yet measurable given measurement relies on comprehensive implementation of the SAFE strategy in the 3-4 year period following the end of the project. The primary role of the GTMP has been the generation of TF and TT prevalence data with which to guide trachoma action planning; planning and implementation specifically have been beyond the original project scope though significant efforts have been made to add value in this area. The GTMP has demonstrated the benefits of standardised approaches and methodologies, and has shown that electronic data capture and processing can be adopted across varied settings, which has encouraged wider uptake. The GTMP has illustrated how varied partners and donors can work together to maximize their resources and improve quality, and has made a valuable contribution towards the securing of considerable funds for SAFE implementation in the next critical elimination phase. The GTMP has also strengthened and energised the global trachoma community towards the elimination effort. GTMP data have been used to identify a population of 100 million people who live in endemic health districts; as a consequence of these data, there is a high likelihood that they will receive antibiotic mass drug administration at a community level.

3.4.1 Usage and uptake of GTMP data

Primary uses

GTMP data and systems identified a population of 62 million people globally who live in areas in which the TF prevalence in children is $\geq 10\%$, equating to 28% of the global population surveyed by GTMP³⁶. According to WHO guidelines³⁷, where the TF prevalence in children is $\geq 10\%$, antibiotic treatment, facial cleanliness and environmental improvement interventions are recommended to be undertaken for at least three years before review. Where the TF prevalence in children is $\geq 5\%$ and less than 10%, active trachoma is considered to be a public health problem, and antibiotic treatment, facial cleanliness and environmental improvement interventions are recommended for one year before review. It has been forecast that 100 million people globally will need to receive antibiotic mass drug administration as a consequence of the data gathered through mapping with GTMP methods³⁸.

At the country level, the data have enabled MoHs to plan their intervention programmes in line with the WHO-recommended SAFE strategy. Most countries mapped have now developed or revised their Trachoma Action Plans (TAPs), essentially the national trachoma component of national NTD Master Plans, and which importantly guide in-country activity towards the elimination aim³⁹; TAPs outline, in clear detail, annual targets for all aspects of the programme, enabling donors and partners to see how elimination is to be achieved.

³⁶ GTMP end of project communication pack (2016) (Source ITI).

It should be noted that this populations given demonstrates the number of people who are estimated to be living in the health districts that were sampled. GTMP used population based survey methods: a proportionate number of individuals in the community are surveyed, this sample is then factored to represent the entire health district population.

³⁷ Solomon AW, Zondervan M, Kuper H, et al. Trachoma control: A guide for program managers. Geneva: World Health Organization; 2006

³⁸ GTMP end of project communication pack (2016). (Source ITI).

³⁹ The development of TAPs has generally followed a similar format with the first day or so given to trichiasis activity planning and the next two to three days dedicated to plans regarding mass drug administration, facial cleanliness and environmental improvement. Some countries, such as Ethiopia, also developed regional level TAPs.

While efforts to support use and uptake of the data are essentially beyond the pre-identified scope of the GTMP, the project supported two epidemiologists to visit some counties to provide direct support in the use of data for trachoma action planning (this has been on a partial funding basis - MoHs and in-country partners have also contributed funds). The availability of reliable trachoma prevalence data has reportedly also increased the profile of the disease leading to the commitment of more funds suggested to the value of £80 million (DFID SAFE (£39 million) and The Queen Elizabeth Diamond Jubilee Trust (£41 million).) for SAFE interventions across a number of countries, which has also given serious impetus to implementation planning.

Driven by the donation of Zithromax from Pfizer Inc., the primary use of the data has been to inform targeting for Mass Drug Administration (MDA). At the time of writing, March 2016, 24 countries mapped by GTMP methods require at least one round of MDA (at least 1 district has a TF prevalence of $\geq 5\%$). The International Trachoma Initiative (ITI) is currently receiving reports for 2015 MDAs. Existing MoH reports submitted indicate Ethiopia, Malawi, Mozambique have seen two rounds of MDA (in a portion of districts) and the Solomon Islands has seen one round of MDA (in a portion of districts). Several countries have approvals on their applications for MDA but have not yet reported MDA⁴⁰.

Table 4 below provides a breakdown of the estimated total populations surveyed with GTMP methods against trachoma prevalence categories⁴¹.

Table 4: Estimated populations surveyed with GTMP methods against trachoma prevalence categories

Trachoma prevalence categories	Percentage of total population represented by data captured with GTMP methods
TF <5%	56%
TF 5->10%	16%
TF10-<30%	18%
TF $\geq 30\%$	10%
Total	100%

Many MoHs have also used the data to quantify their trachoma surgery requirement amongst the populations surveyed, including the number of referrals made previously which have not presented within the health system. Where funds have been available to address the TT backlog (i.e. in Malawi, a £8 million grant was approved by the Queen Elizabeth Diamond Jubilee Trust in 2014), this has also reportedly acted as a catalyst for strengthening ophthalmic services in intervention areas, as relating to the purchase of drugs and equipment, and the building of capacity.

"Where there was evidence of TT - we sent someone to check on the clusters and we found cases there. The power of the data was meant to be at the district level but we used the cluster data to find people." (National level informant)

General challenges

⁴⁰ Source: the GET2020 Database, managed by the International Trachoma Initiative

⁴¹ Source: the GET2020 Database, managed by the International Trachoma Initiative

Some of the challenges associated with the sharing and dissemination of GTMP data reported in the Effectiveness section could have also affected the use and uptake of data; specifically a lack of funds for holding national level workshops or other dissemination activities, or the production of a report for broad national and sub-regional level consumption. It is possible that more guidance in data interpretation may have also facilitated further uptake and use, though not all countries would have needed additional support given existing skills levels (again, it is also noted that this was beyond the stated scope of the project). It was also suggested that NTDs are given less priority and attention within the MoH than other diseases, perhaps given they impact on morbidity more than mortality. There has been at least one case (Ethiopia) where unexpected results of the survey reduced inclination to translate the data into actionable plans, though this was resolved. Subsequent analysis at the country level, dependent on aspects such as funds and skills, may have also facilitated detailed comprehensibility of the data which may have encouraged further use. As such, as a minimum, it appeared that while all countries mapped used the data to inform antibiotic quantification and TAPs, further use was both varied and context specific.

WASH data

Use and uptake of GTMP data has focused on the S&A component of the SAFE strategy, rather than the F&E. The GTMP WASH data could potentially serve two purposes: informing programmatic intervention by countries and as a basis for academic analyses of disease distribution against WASH access across multiple countries⁴². While the WASH data are not detailed enough to determine WASH interventions at very local levels (for example, information is not provided on water quality or the mapping of individual water sources), in the future, the data could be used to identify priority areas of low access where more detailed surveys of water availability may be needed⁴³ or for the targeting of hygienic behaviour promotion activity.

While substantial effort (through extensive consultation) was made from the outset to ensure WASH data collected through GTMP surveys would correlate with standard indicators used by the WASH community, the application of the GTMP WASH data has been challenging in practice. That NTDs and WASH are housed within different government departments, with effective mechanisms to facilitate sharing of information and joint planning, implementation and evaluation rarely established, has prevented many notable collaboration efforts to date (Uganda though was suggested as an exception though the enabling factors were not further explored). The challenges associated with in-country sharing and dissemination efforts, as discussed in the Effectiveness section, likely compounded this.

"We [the MoH] sent emails and reports to people about the WASH data we had people don't read them. We should have conducted workshops with the WASH community to discuss findings of the study. A report may have helped. People still quote WHO estimates when we have our own more reliable in-country data. Maybe they do not see this as reliable data? Or they see the data as too specialised i.e. it's just about trachoma?" (National level informant)

WASH and NTD programmes are often working to different policies and timeframes (also guided by varying global targets⁴⁴). That the links between WASH and trachoma require

⁴² Minutes of the 7th Project Advisory Committee meeting, Addis Ababa, 30 April, 2014.

⁴³ Minutes of the 7th Project Advisory Committee meeting, Addis Ababa, 30 April, 2014.

⁴⁴ The WASH sector is generally focused on the Sustainable Development Goal target of universal access to basic WASH in communities, schools and health care facilities by 2030, yet the target date for the NTD roadmap, which sets key control and elimination targets for key NTDs is 2020.

further clarity in themselves remains a challenge in advocating for either collaboration or funding. GTMP provided circumstantial evidence of both water availability and sanitation, though the implications of these data remain limited because the causal effect with trachoma is still unclear. Data were also not collected on facial cleanliness or washing, given the possible confounding of their association with trachoma⁴⁵. Given attention had to remain focused on the core focus of mapping trachoma prevalence, WASH data have not been a focus in the core GTMP analysis.

However, secondary analysis to further explore links between WASH indicators and TF is planned, and there has been a lot of interest in analysing the GTMP's WASH data from academic institutions, to be coordinated by a Data Application Panel, as outlined in the Secondary Analysis section below. This will be important in generating clearer insight into the link between WASH and trachoma prevalence. The availability of high quality WASH data from the GTMP, against indicators acceptable to both the health and WASH communities, also presents an opportunity for corroboration with other national level WASH data to inform implementation planning and evaluation.

Secondary analysis

As previously mentioned, only the MoH has the right to access the GTMP data and to grant permission to others to use or analyse the data, though the GTMP or others are able to support countries to conduct further analyses. Secondary analysis of the cleaned data can be done from the 'analytic file' received in-country. However, given secondary analysis is not a key focus of the project (thus funds and technical support were not earmarked) and the range in analytic capacity at the country level, there has been little secondary analysis so far conducted. A call was put out by GTMP in 2015 to formally explore secondary analysis interest in GTMP data, and a mechanism for reviewing data analysis requests and submitting for in-country approval was established, supported by a GTMP Data Application Panel. The mechanism presents a valuable opportunity to essentially 'match-make' specific research interests with appropriate countries, spread the research interest across countries, reduce pressure on countries in having to respond directly to unfiltered requests, and enables a coordination function to monitor the scope of secondary analytic requests and approvals. The call has already generated a lot of interest and nine analyses have been endorsed to countries by the Data Application Panel, all expecting to lead to publication.

Some of the secondary analyses approved or underway, as mentioned by informants or highlighted in documentation, include the development of a specific TT survey (using GTMP data to target areas and establish inclusion criteria); an analysis of cluster level data to explore the prediction of locations for future re-emergence of TF; a review of patterns of household absenteeism and follow up of absentees for trachoma grading and survey completion; the utility of alternative indicators to clinical grading for determining when to stop MDA; and an assessment of the magnitude and types of disabilities in the populations surveyed for trachoma in Uganda⁴⁶. As discussed above, valuable opportunities also exist for secondary analysis of WASH data and the relationship between other (i.e. socio-economic) variables and TF infection to further inform our understanding of the disease and likely endemic locations; further such analyses may already be underway. It was also suggested by one global informant that more could have been done to improve analytics under the project, such as developing metrics for

⁴⁵ Ejere HO, Alhassan MB, Rabi M: Face washing promotion for preventing active trachoma. *Cochrane Database Syst Rev* 2015, 2:Cd003659.

⁴⁶ The purpose of this was to provide information for the Ugandan government on the magnitude of disability within its population. Linking disability and trachoma data also helps in understanding how people with disabilities experience trachoma (as well as water, sanitation and hygiene services) compared with the non-disabled population.

monitoring project or staff performance, though this was again beyond the core scope of the GTMP and there was not the availability of staff to support this.

3.4.2 Broader use of GTMP approaches, processes and tools

Beyond the data, there are already legacies of the project in terms of approaches, process and tools developed. GTMP methodologies, systems and processes are now being utilised by USAID in their trachoma mapping programmes; GTMP are providing design advice, materials, training, and data collection and approval systems under mapping implemented by FHI 360 in two countries and by RTI in 12 countries⁴⁷. Similar processes of data capture and processing using android phones have also been used in other trachoma surveys, such as in Malawi where the Queen Elizabeth Diamond Jubilee Trust Trachoma Initiative have funded trachoma impact surveys and the DFID-funded SAFE Implementation programme is expected to incorporate electronic data capture⁴⁸. The Fred Hollows Foundation have used GTMP methodologies for impact surveys in Eritrea, and GTMP's systems and methods have also been adopted in Central and South America, where Mexico has conducted surveillance surveys and Colombia, baseline surveys. There has also been interest in the GTMP methodology from Guatemala, and Brazil⁴⁹. As previously mentioned, the lessons learnt from the GTMP experience are being used to develop Tropical Data, an initiative which aims to build on GTMP functionality to capture and record all trachoma related data (principally from impact surveys and surveillance surveys) so that national programmes can monitor and manage the results of their trachoma elimination interventions⁵⁰.

Uptake of the GTMP's methods and systems was facilitated by the use of open source software (Open Data Kit [ODK] for data collection tools and 'R' for analysis) as well as the GTMP's willingness to share tools and processes. Key limitations for replicating the data system thus appear to be mostly financial, given the funds needed to support a data management team and conduct extensive capacity building, as well as political, given the prioritisation needed to enable effective resource allocation and operational support.

A range of informants across groups suggested that the training process, the partnership and management approach and other aspects of the implementation model developed under the GTMP could and should have broader applications. Harvard University is currently preparing a teaching case study on GTMP focused on the implementation process, including the identification of factors which resolved operational issues and which contributed to a successful collaboration. The overall hope for the case study is an open access document to be used in training courses around the world, including leadership training for MoH officials⁵¹.

Integrated NTD mapping

According to Advisory Committee notes, a theoretical interest has been maintained on integrated NTD mapping throughout the project, with regular reflection on opportunities, as well as methodological and operational challenges. DFID lent support to integrated NTD mapping in its business case, which emphasised the co-endemicity of many NTDs, the time and cost savings from integrating mapping activity, and how an integrated approach could help identify areas of NTD overlap where delivery of services could be

⁴⁷ GTMP Annual Review Year 3 (1 July 2015).

⁴⁸ GTMP Annual Review Year 3 (1 July 2015).

⁴⁹ GTMP Annual Review Year 3 (1 July 2015).

⁵⁰ GTMP end of project communication pack (2016).

⁵¹ GTMP Annual Review Year 3 (1 July 2015).

combined and supported⁵². In practice, the focus of the GTMP remained on mapping trachoma in isolation, though there were some small scale examples of integrated NTD mapping (as project ‘add-ons’) using GTMP methodologies and systems, specifically:

- ❖ Soil-transmitted helminth (STH) infections, schistosomiasis and lymphatic filariasis (LF) mapping in Nigeria using android technology (co-funded by DFID and the Children’s Investment Fund Foundation)
- ❖ Guinea worm active surveillance in Ethiopia and Sudan
- ❖ Yaws mapping in the Solomon Islands; (funded by DFID and Wellcome Trust/London School of Hygiene & Tropical Medicine)
- ❖ Blood spots were gathered in Papua New Guinea to allow for testing to determine whether a range of tropical diseases are being transmitted locally (funded by ITI, implemented by Brien Holden Institute)

These examples included both the adding of questions relating to other diseases to the GTMP tool (guinea worm and yaws), or a coordinated approach to mapping activity through combining parts of the training, community mobilization, or some of the logistics and supervisory efforts, rather than actually integrating the tool or even the data collection process (Nigeria). A national informant summarised the experience of integrated mapping in Nigeria:

“The lessons learnt related to what aspects of the mapping process could be integrated. Each disease needed a different sample size and target population. It could be quite difficult to harmonise. It was even difficult to combine procurement as different consignments were required for each one - there are a lot of consumables you need for the schisto diagnosis for example. You can do integrated training to some extent - day one was the overview - but when you get to the practical side, you almost need to break up into sub-teams for each disease, so for the other days. Each had a different tool to map the disease - LF was paper-based and schistosomiasis, soil transmitted helminths and trachoma were electronic but all separate. The mobilisation of the community could also to some extent be combined and this would help reduce community fatigue that you are coming together. I would definitely recommend integrated mapping in the future – you just need to understand what you mean by integration. Also you can do joint advocacy and combined planning.” (National level informant)

While a review of documentation suggested broad support for integrated NTD mapping, opinions were mixed across informants, with differences in interpretation and perceived implications of ‘integration’ clearly contributing to this range. Informants supportive of the approach tended to highlight opportunities for savings in costs, resources and time, cost effectiveness (even if timeframes or sample populations were not perfectly matched across diseases), the potential boost to monitoring and supervision activities for better outcomes, avoidance of community survey fatigue, and the opportunity for developing collaborative approaches across disease communities for more effective planning, advocacy and grant development. Key challenges raised included the difficulties in combining multiple diseases into one tool, the difference in sample sizes and sample sites required for mapping different diseases, the range of diagnostic approaches and related skills required, and the need for extensive scientific input across diseases in order to effectively guide the data cleaning process. There were also converging views relating to integrated NTD mapping as progress is made towards elimination; some informants thought that integrated impact surveys or surveillance efforts would become even more cost effective, while others emphasised the need to focus exclusively on the disease in

⁵² DFID Business Case and Intervention Summary: GTMP.

isolation to enable effective sampling for data accuracy and to maintain momentum from well targeted data generation.

In part because of experience generated under GTMP, WHO and the African Regional Office for the WHO (AFRO) have reportedly looked more closely at the mapping of other diseases, including integrated approaches. However, guidelines are not yet available to advise on integrated data collection for NTDs which is likely to slow uptake at the country level. That funding is often disease specific also presents a challenge for integrated efforts. As already mentioned, there appears to be a broad commitment to actively exploring integrating NTD data collection through the Tropical Data platform.

3.4.3 Added value

Beyond the original scope of the project and the project benefits already discussed, the GTMP has added value in many ways, both broadly and specifically; some of these are mentioned below.

GTMP epidemiologists and partners have helped to strengthen public health systems through the training of eye health workers in trachoma survey methodology and the effective grading of trachoma, valuable for the routine delivery of quality eye care as well as future impact surveys. M-health capacity has been developed across countries, with a pool of qualified recorders able to support future disease control surveys, as well as trust generated in electronic data collection systems. The mobile phones used by the GTMP have also been made available to MoHs for future disease management programmes. The project has supported the development of trachoma epidemiological knowledge in country and has boosted capacity in using data to inform implementation planning. The lower than expected prevalence in some countries, such as in Nigeria, has also reportedly spurred efforts for exploring alternative diagnoses. A number of supervisors trained under the GTMP mentioned the value in learning how to effectively conduct 'supportive supervision', a notion previously unfamiliar to them. The post survey distribution of Zithromax has also been shown to have an effect on the reduction of other infections, for example yaws⁵³ and genital *Chlamydia trachomatis*⁵⁴. On a global level, the GTMP has also contributed to evolving thinking on trachoma diagnosis.

The project has also contributed to raising the profile of trachoma specifically and eye care more generally:

"Eye care has jumped a platform within the MoH – everyone, everyone knows about it. There were seven 24 feet containers to bring the drugs into the country via jumbo jet. The profile of eye care has been raised. People are also more aware of the need to get their eyes checked." (National level informant).

Numerous informants also mentioned how the project has reinforced a global network within the trachoma community, mobilised now towards an elimination effort:


"GTMP has reinforced a global network of eye health experts and colleagues who are now working together in an elimination campaign. It has put trachoma on the map - it has created a demand - in the countries, you can see it reinforced by the donor network [and] the action plans." (Global level informant)

⁵³ Marks, M., et al., Impact of Community Mass Treatment with Azithromycin for Trachoma Elimination on the Prevalence of Yaws. PLoS Negl Trop Dis, 2015. 9(8): p. e0003988.

⁵⁴ Marks, M., et al., Mass drug administration of azithromycin for trachoma reduces the prevalence of genital *Chlamydia trachomatis* infection in the Solomon Islands. Sex Transm Infect, 2016.

"Through the GTMP, we have shared experiences across countries. The standardisation means that when we meet with other countries, we are speaking the same language which helps address the challenges as we move forward." (National level informant)

3.5 SUSTAINABILITY

 **Excellent.** The results from the GTMP surveys and the widespread development of country level, target-orientated Trachoma Action Plans have made a valuable contribution towards making the elimination of trachoma as a public health problem feasible. Significant thought has been given within the project to legacy planning, in particular the development of the Tropical Data platform, into which lessons learnt from the GTMP have been applied. Countries do have a sense of ownership of the data, though this could have been strengthened through further engagement with the end-users earlier on in the project, as well as clarifying the data approval process. While, inevitably, significant challenges exist as relating to elimination, the GTMP data provides the critical and essential foundation for next phase of activity.

3.5.1. Continued relevance of GTMP over time

It was indicated across informants that the prevalence data generated by the GTMP were available for use at both the global and national levels for grant funding and resource mobilisation, and has been used in trachoma action planning across all countries, at a minimum in terms of quantification of Zithromax need. However, further support in sharing and disseminating the data to facilitate uptake, as well as in understanding the data to encourage use in planning, advocacy and fundraising activities may have been valuable, as has already been discussed. While the Trachoma Atlas was reported across respondents as valuable for enabling public access to the GTMP data, issues with downloading maps were apparent, though it is understood that the Atlas is currently being redeveloped which should address this.

During the final year of the project, GTMP gave emphasis to 'legacy planning', with consideration to ensuring full data availability on the Trachoma Atlas, developing a framework for cooperation between agencies and preparing for the next phase of trachoma data management support, in the form of Tropical Data. Lessons learnt from the GTMP have been fed into the design of the platform with a particular focus on further engaging countries with the data. For example, emphasis will be given to the data approval process and explaining the scope of data to be collected during training, and there will be an option to approve the data in-country via email if preferred. Timeliness in response is expected to be given attention, more human resources will be added to the data cleaning function, and support will be more formally provided to data interpretation and application. These innovations appear to appropriately reflect some of the findings highlighted through this evaluation. It was clear from the evaluation, however, that there is as yet little country level awareness that a follow-up initiative to maintain the scale of activity and momentum may be forthcoming.

The 2020 INSight document, developed by the ICTC, presents the business case for trachoma elimination and a subsequent roadmap to 2020 is already being developed, based on GTMP data and implications for activity in the next critical phase. It is hoped that this document will represent a call to action and encourage ICTC members to update their plans, as well as provide the impetus to partners to coordinate activity. Elimination of trachoma as a public health problem is an attractive goal for government, donors and partners but it requires that all are convinced that elimination is a feasible possibility. The clear messages regarding trachoma and elimination, as outlined in the 2020 INSight document, combined with results from the GTMP surveys and the widespread development of target-orientated TAPs make a compelling case for trachoma elimination. There was broad consensus across informants that elimination of trachoma

is a distinct possibility in at least some countries by 2020, which is hoped, will spur on funds generation and political commitment towards continued efforts in subsequent years when many countries will be in post-treatment surveillance stages. It will also be useful to learn from experience, successful or otherwise, in eliminating other diseases.

“The GTMP data need to be used as an advocacy tool. We now have the how and the when, and we have the SAFE strategy. The missing parts of the puzzle are political commitment, which will hopefully come, and then the money - this is more difficult - there is a perception that trachoma is well funded. But we have an estimated 20% of what we [think we] need to eliminate trachoma as a public health problem. But there are opportunities - there is money out there - from endemic country governments, bilateral agencies as well as wealthy individuals.” (Global level informant)

3.5.2 Country level ownership of mapping process and data

As outlined in the MTR, the project has been explicit and unbending in its commitment to MoH ownership of GTMP data and it is accepted that any compromise to this principle would put the integrity of GTMP at risk. Commitment to MoH ownership is also essential for the long-term prospects of trachoma elimination given the leadership role governments must play in the implementation of trachoma interventions, impact surveys and surveillance⁵⁵. It was clear that there is some level of ownership over the data, which likely varies country by country, according to past experience in using similar data, the extent of national level supervisory involvement in collecting the data, and the level of in-country capacity. All MoHs have also approved their GTMP data. However, country sense of ownership could have been further strengthened through training the end-users in understanding the scope of the data, as well as the GTMP data approval process. While the data service provided by GTMP was orientated around data cleaning rather than analysis as such, there remains a perception that countries were not involved in analysis which likely compromises their sense of ownership and perhaps uptake of the data.

“The only bad thing I can say is about the data analysis. It did not empower countries at all. Despite being the principal investigator, I have no clue on how the data was analysed. I get asked questions about the confidence intervals for example and I receive [a reply] from Atlanta about it but I have more capacity to know more. Maybe this was about quality control but they should have worked with someone in country on the analysis - so as to build our capacity.” (National level informant)

“Part of the issue is that people just get given the data - they don't feel they have the ownership of it.” (Global level informant)

⁵⁵ Evaluation Report: Mid-term Review of the GTMP, June 2014.

3.6 WORKING AT SCALE

 **Excellent.** The simplicity and standardisation in project design, coupled with a strong partnership and centralized project management, facilitated a fast scale up, exceeding original expectations in mapping coverage over the three year project period, whilst also maintaining high levels of quality control.

A significant challenge recognised at the outset of the project was how to achieve the scale required without a reduction in quality. While implementation was, and rarely is, perfect, the GTMP has exceeded expectations in rolling out to 29 countries, at speed, to work with a range of in-country partners, whilst maintaining overall high levels of quality. A number of factors appeared to facilitate effective working at scale; together they imply that the scale may have also driven the quality:

❖ **Strong central level coordination and management**

A centralised system enabled a high level of efficiency; the project could do more with less. Particularly since the MTR, the tools and processes mentioned most for guiding coordination of activity included the weekly calls and the Excel spreadsheet highlighting activity updates and data flow, disseminated throughout key members of the core team on a weekly basis. There was some level of “*doing things on the fly*”, which reflects the nature of fast paced activity, but for the most part, this did not appear to compromise quality of activity, in part because of the strong relationships which had been developed, and familiarity with ways of working across the consortium.

"At every opportunity I have to say hats off to Sightsavers because they really did have a central role here, making sure the money was where it needed to be, making sure everything that needed to be planned was planned in advance. In comparison, doing the work was almost the easy part. That was the secret - just really good programme management." (Global level informant)

❖ **Simplicity and standardisation**

The roll-out of a mapping methodology, training cascade and data handling techniques that were internationally standardised permitted rapid scale-up of mapping activity, and promoted confidence in the internal comparability of the data⁵⁶. The standardised and simple training and implementation tools also meant that highly specialised staff were not required to conduct trainings or oversight of data collection which facilitated a faster roll out.

❖ **Strong partnership**

The strong partnership, led by Sightsavers, appeared to be key in enabling fast scale up. Good support was available to in-country partners in the planning stages, both through visits and remotely, which contributed to mobilising activity quickly.

"All the different partners and country programmes really did have to work together. We all overlap in our mission to do the work. All [of] our work is integrated. So this kind of project just solidified that. If we worked together, we could get things done faster." (Global level informant)

⁵⁶ Solomon AW, Pavluck AL, Courtright P, Aboe A, Adamu L, Alemayehu W, Alemu M, Alexander ND, Kello AB, Bero B, et al: The Global Trachoma Mapping Project: Methodology of a 34-Country Population-Based Study. *Ophthalmic Epidemiol* 2015, 22:214-225.

"The trachoma train is leaving the station'. This was the mind set in Nigeria - you either got on it or missed it. It also sent a clear message - we have got timetables, we need to stick to them...It kind of worked." (Global level informant)

❖ High level WHO access

As conveyed by one global level informant: *"Having high level access at WHO really helped. Sometimes an issue can be sorted out through discussion with the WHO and respective member state and that helped. Sometimes we underestimate that link and how much we utilise that."*

3.7 COHERENCE/COORDINATION



Excellent. The overall strength in the GTMP partnership at the global level appeared to be a key driver of impressive project achievement. The tripartite partnership arrangement in-country was both appropriate in design and effective, though the strength of the partnership varied by country – this was explored by GTMP in the initial planning stages and additional support assigned when perceived to be needed. The project did not give specific priority to disability or gender responsiveness. Survey teams were comprised of a disproportionate number of males, as reflecting cultural norms and practices in country and existing bias in trained ophthalmic workers, though this was not considered to have a notable detrimental effect on the project.

3.7.1 Consortium and partnership approach

Overall, GTMP was delivered in collaboration with over 60 partners, comprising the funders, DFID and USAID, 30 MoHs, 21 implementing partners and other organisations involved in either stewarding, supporting, managing or implementing the project⁵⁷. While the partnership on a global level was reportedly challenging from the outset due to the need to unpack and clarify partner responsibilities, the strength of the partnership appears to have grown in time, as roles and responsibilities have become more entrenched and partners have mobilised in focusing their efforts on the enormity of the work needing to be done. The pre-existence of some strong personal relationships appeared to have facilitated effective collaboration within the consortium. Partnership has already been highlighted as a key enabling factor driving the impressive outputs of the GTMP. The strength of collaboration also appears to have enabled other players (i.e. USAID) to join the effort. That the partnership between USAID and DFID as relating to trachoma has been further strengthened under the project may have also paved the way for effective collaboration regarding subsequent implementation planning; for example in Tanzania, USAID is currently supporting MDA while DFID and others are supporting trichiasis and some F&E work. The strength of the global partnership also appeared to facilitated accessibility from the country level:

"The global partnership - you could easily see who everyone is and how they are working together so you know how to communicate with them. It was not bureaucratic and was like a flat structure. It was easy to get to the top level with maximum response from the top down." (National level informant)

For the in-country implementation of actual mapping activity, the GTMP focused on partnering with the organisations who were already active in trachoma control activities, or the MoH where no partner was available (which was rare). Agreements with in-country partners were tight and as such, partners were likely aware of their responsibilities and expectations upon them. The GTMP tripartite partnership arrangement at the country

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- 24 organisations: AMREF, Barraqua Institute, BICO, Brien Holden Institute, Christian Based Mission, The Carter Center, College of Ophthalmology & Allied Vision Sciences, Fred Hollows Foundation, FHI 360, Helen Keller International, International Coalition for Trachoma Control, International Trachoma Initiative (The Task Force for Global Health), Johns Hopkins University, Kilimanjaro Centre for Community Ophthalmology, Light for the World (Austria), Light for the World (Netherlands), London School of Hygiene & Tropical Medicine, Magrabi Foundation, Miosath, ORBIS, Organisation for the Prevention of Blindness (OPC), Organizacion Panamericana de la Salud (PAHO), RTI, Sightsavers and the World Health Organization. In addition there was 1 working group the Eastern Mediterranean Region Alliance which supported EMR ministries of health.

- 30 ministries of health include: Benin, Cambodia, Chad, Colombia, Cote d' Ivoire, Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, Fiji, Guinea, Kiribati, Laos, Malawi, Mexico, Mozambique, Pakistan, Papua New Guinea, Nigeria, Republic of Congo, Senegal, Solomon Islands, Sudan, Tanzania, Uganda, Vanuatu, Zambia, Zanzibar, Zimbabwe and Yemen. (In addition ministries of health in Cameroon and Nepal conducted baseline mapping projects during the life of GTMP without the use of GTMP methods.) In addition 7 Ethiopian Regional Health Bureaus took responsibility for their regional planning and mapping projects under GTMP.

- 2 funders include: DFID and USAID

level appeared both appropriate and effective though the strength of the partnership varied between countries, depending largely on partner and MoH capacity; a weaker partnership was generally reflected in weaker implementation, though usually the strength of one in-country partner drove up the quality. Where a weak partnership was suspected, GTMP responded by sending additional technical or human resources to support micro-planning and/or supervision in-country. As already mentioned, in-country financial contribution was also encouraged so as to promote a sense of ownership over the budget.

“We found that if you have a passive ministry and an active implementing agency then that will work, and the other way round, but if you have neither then you will have issues as you have no one driving it forward to the level that needs to be taken. And then you are relying on individuals in the field – and that’s when it can go wrong.” (Global level informant)

3.7.3 Disability and gender responsiveness

Gender or disability considerations were not guided by any specified principles under the GTMP and there were no associated measures included in the Logframe. Survey participant sampling was community based and random and thus, appropriately, reflected no bias along disability or gender lines and no one was excluded. Some useful consideration was given to disability during the mapping training, specifically what constitutes disability, how it can be measured, tips for interviewing people with disabilities and referral for appropriate services. Some analysis is reportedly being done to explore whether people with disabilities were included within trachoma surveys though further details were not available.

Gender responsiveness can mostly be considered in the context of the recruitment of graders and recorders. There was no deliberate discrimination in recruitment, with the process being open and transparent, though an approximately equal balance of male/female participants was often preferred to enable a mixed team (one male, one female) so as to facilitate access in more traditional areas. In some states of Pakistan, all teams in fact had a male grader plus a female grader for this reason.

However, while the balance varied across countries, on an aggregate level there was an over-representation of male graders and recorders within field teams. For example, within the 208 additional teams mapping during year 3, 67% of graders and 76% of recorders were male, while just 33% of graders and 24% of recorders were female⁵⁸ (analysis is also underway to explore the gender balance across trainees throughout the project). This bias is reflective of some of the gender and cultural norms and practices of countries in which the GTMP worked. In Yemen, for example, field teams were all male as women who were offered the opportunity to take part all opted out due to the difficulties associated with working in rural hard-to-reach locations. Conversely, other regions had good female representation, such as in Tanzania where approximately half of graders and a third of recorders were female⁵⁹. It was suggested by some respondents that field team recruitment should have prioritised women given trachoma disproportionately affects women and children, and female community members may be more likely to open up and be receptive to health advice from other women.

A slight gender bias was observed during year 3 in the pass rate for the inter-grader assessment among graders; male trainees had an 81% pass rate compared to that of

⁵⁸ GTMP Annual Review Year 3 (1 July 2015).

⁵⁹ GTMP Annual Review Year 3 (1 July 2015).

75% for female trainees. This most likely reflects the fact that male candidates were more likely to be qualified as ophthalmologists or trained professional eye health workers than their female counterparts⁶⁰.

"Gender could have been seen as a gap. But it comes back to the point of why the project was designed – it was designed to create an epidemiological baseline so was about collecting scientific data. We were trying to get maximum amount of data in a short space of time. Only where it was a cultural consideration was gender considered i.e. Pakistan and northern Nigeria. There is always more that can be done on gender but you need to take a positive skew on it – there are female super stars across the board, prominent women working in trachoma." (Global level informant)

⁶⁰ GTMP Annual Review Year 3 (1 July 2015).

4 Conclusion

There was a broad consensus across the partnership of the importance and relevance of the GTMP in the context of the global aim to achieve elimination of trachoma as a public health problem by 2020. The project has demonstrated a high level of effectiveness, having exceeded all targets stipulated within the Logframe, including importantly, the number of suspected trachoma endemic districts mapped globally. This impressive achievement reflects a higher than anticipated demand for baseline mapping which resulted in a collaboration with USAID to enable wider coverage. Some key factors appeared to have driven project effectiveness. These included GTMP's simple design, focused primarily on the mapping of TF and TT, the emphasis placed on standardisation in terms of activity planning and delivery, the development of a 'gold standard' data system, an effective training model coupled with high quality, focused materials, the strength in both the global partnership and centralised project management, collective ambition and a lot of hard work. While standards were set and centrally imposed, a level of flexibility throughout the project also allowed adaptation based on lessons learnt with the overall aim of continually improving effectiveness and quality.

A standardised approach also enabled the project to work at unprecedented speed, at a greater than anticipated scale and at high levels of efficiency. The overall project strategy reflects a key focus on efficiency in its aim to maximize the use of valuable resources. The project has also provided a good model for cost containment. While the development of a comprehensive VfM strategy was not required, some solid approaches have been taken to measure VfM. These have included a rigorous budgeting process for in-country mapping, harmonising the micro-planning process with budget development, the development of a detailed risk management strategy and the initiation of a unit cost analysis to better understand unit costs and cost drivers, expected to be valuable in planning further disease mapping activity.

The outputs of TF and TT prevalence were powered to a level (most commonly district) so as to enable practical trachoma action planning in line with the SAFE strategy. Most countries mapped have now developed or revised their TAPs to guide in-country activity towards the elimination aim. While use of GTMP data has been varied and context specific, its primary use has been to inform targeting for MDA, followed by quantification of TT surgery requirement amongst populations surveyed. The F&E data have not been used to a notable extent to plan in-country programmatic intervention, reflecting numerous issues including establishing effective mechanisms for collaborating with the WASH sector. That evidence on specific WASH interventions needed for trachoma control remains limited complicates efforts in advocating for either collaboration or funding. While support in the use and uptake of GTMP data is essentially beyond the pre-identified scope of the GTMP, considerable technical support has been provided in this area though feedback implies this may not have fully met demand.

On a broad level, more emphasis has been placed on the use of data for trachoma action planning than on sharing the GTMP data in-country. The extent of dissemination activity varied across countries. Formalised printed reports were rarely developed likely due to a lack of funds or support, though may have facilitated dissemination of findings to key in-country partners, supported broader discussions around use and uptake of the data, and enabled a document for ongoing reference. Going forward, it will be important to continue to identify further opportunities for sharing and disseminating the data as useful for maximising the elimination effort both at the global and national levels.

Countries do have a sense of ownership of the data, though this could have been strengthened through further engagement with the end-users earlier on in the project, clarifying the process for data approval, and the provision of further support to data interpretation and application. Country sense of ownership over the data appeared to vary according to past experience in using similar data, the extent of national level supervisory involvement in collecting the data, and the level of in-country capacity.

Valuable opportunities also exist for secondary analysis of the huge, geo-located GTMP data sets, and some useful analyses are already underway. The mechanism introduced by the GTMP to facilitate and coordinate further research requests represents an important opportunity to maximise value from the data in relation to the elimination campaign and beyond, as well as to build in-country capacity. Particular opportunities exist for further analysis of WASH data and the relationship between socio-economic variables and TF to further inform understanding of the disease and likely endemic locations.

The broader uptake of GTMP tools, process and systems is testimony to the quality of the work conducted under the GTMP, the accessibility of systems developed and the willingness of the GTMP to share its experience. GTMP has also added value beyond the original scope of the project, as relating to health systems strengthening, raising the profile of eye care, capacity building from a broader sense, and the strengthening and energising of a global network within the trachoma community, mobilised now towards an elimination effort. The small scale examples of integrated NTD mapping conducted under the project have added to the debate on the possibilities for integration of NTD data capture which will need careful consideration under Tropical Data.

While, inevitably, significant challenges exist as relating to trachoma elimination, the GTMP data provide the critical and essential foundation for the next phase of activity. The timing of GTMP enables trachoma control programmes to complete at least one phase of interventions in high prevalence areas before the 2020 elimination target date. Priority will need to be given to ongoing capacity building at all levels to enhance the potential of sustainability of elimination efforts. The next two to three years for trachoma elimination are critical to enable effective consolidation of recent work and to build on the momentum of political and programmatic energy generated under the GTMP to secure the required funds.

5 Recommendations

Some recommendations are made for the planning of future disease mapping activity, based on the findings of this evaluation:

1. The **relevance of mapping activity** to clear, time-limited global (or regional or national) targets is likely to generate broader support among the associated community, as well as momentum for funds generation and political prioritisation for subsequent implementation.
2. The **scope of data to be collected** should be refined based on clear gaps in epidemiological knowledge and need for immediate intervention planning, with data powered to a level to enable practical application.
3. Uptake of data could be supported by **considering specific uses in advance**, including the development of any systems or processes which could facilitate fast application i.e. quantification systems for MDA.
4. **Guidelines and criteria for deciding on mapping sites**, and the scope of acceptable evidence for guiding such decisions (i.e. health care records, rapid assessments), should be clear from the outset, so as to maximise the use of valuable resources.
5. **Standardisation across a range of aspects of planning and delivery** is important for an efficient roll out of mapping activity, as well as to maintain quality control, particularly when operating at large scales. However, some level of flexibility should be retained so as to enable appropriate adaptation to varied contexts and the incorporation of lessons learnt during the project.
6. **Electronic data capture and processing, with cloud-based data storage**, is recommended so as to enable the introduction of quality checks during data collection as well as quickly on data submission so any data issues can be addressed whilst the surveyors are close to field survey sites. This system also enables remote operational supervision as a result of GPS. The removal of the data entry stage, alongside more automated data cleaning and analysis, will enable faster generation of findings making for a more efficient system than paper-based equivalents, and likely higher quality data. In contexts where electronic data systems are new, time and resources should be given to appropriate sensitisation.
7. Specific **pre-tests of tools translated into other languages** are important so as to ensure effective transfer of meaning and retention of any standardised formatting.
8. **High quality training** is critical for the collection of high quality data, comparable across different settings. A standardised training approach, focused on specific field work requirements and using tested training materials are recommended. Trainers and trainees should be carefully selected and already skilled and experienced in the technical area of focus. Training in effective diagnosis should emphasise practical application, ideally in sample field sites. Post-training assessments can boost trainee performance and thus knowledge and skills uptake, and potentially guide the recruitment of high quality survey teams (if participation post training is not automatic).
9. **Micro-planning should be detailed** and effectively consider terrain variations and access challenges, so as to fully adhere to sampling plans. This should be done in collaboration with the MoH and implementing partner where applicable.
10. **Efficiency – and value for money** – can be boosted by harmonising the micro-planning and budget development processes, and by ensuring any learning on cost and cost drivers is applied into developing standards to guide on estimated/acceptable ranges for further mapping activity, and likely variations according to context.

11. **Effective sensitisation** is critical to encourage community support for and engagement with the activity, to enable quality data collection and to maintain good security.
12. **Security situations** can change quickly and ongoing monitoring is critical. Solutions must also be context specific.
13. At the field level, **operational supportive supervision** is likely as critical for maintaining quality in data collection as is technical supportive supervision. In countries with significant capacity challenges, additional technical resource may be required to supervise mapping activity. Care should be taken to avoid excessive stress on routine health care delivery from the recruitment of key or abundant health service personnel.
14. **Where data cleaning and analysis is done remotely** (i.e. to the country where data were collected), responsiveness to queries on the cleaning or analysis process and speed in providing the final data set are important for maintaining a sense of involvement in, and ownership over, the data. If a system is developed whereby countries need to approve the data cleaned and analysed remotely, attention should be given to training and guiding on the data approval process. It is important that those who 'own' the data have a comprehensive understanding of its scope and interpretation so as to encourage its use in planning, advocacy and fundraising activities.
15. **Dissemination activities** should be well supported. The development of formalised printed reports of findings may boost dissemination efforts and broader discussions around data use and uptake.
16. **MoH ownership of any mapping data** is essential given the leadership role governments must play in subsequent implementation and evaluation activities. Systems must protect this ownership whilst enable opportunities to appropriately maximise from the data. Disease mapping may generate a wealth of opportunities for secondary analyses – structures and processes for coordinating interest and facilitating appropriate approvals may be valuable.
17. Making available **summaries of the mapping data through an open-access resource** should be considered so as to encourage uptake and to support grant making and advocacy activities.
18. Broader **uptake of any specific mapping methods and systems** developed can be facilitated by the use of open source software in data analysis (and a general willingness to share).
19. **Rigorous project management and coordination**, with roles and responsibilities clearly defined, are imperative for an efficient and quality roll out of activity, particularly if at scale. Regular, focused communication across any partnerships, aided by activity tracking tools, will be important.
20. **Advisory or steering committees** can play a valuable role in technically and operationally guiding the project if comprised of high calibre, committed individuals, they are supported to meet regularly and the committee has a clear remit. Effective documentation of discussions and decisions from meetings are important for reference purposes.
21. The **mapping process should involve as far as possible the key actors** to be involved in subsequently using the data; this will facilitate uptake and potentially strengthen collaboration around common goals within the associated community.

22. Efforts to **integrate mapping** should learn from previous experiences in doing so. The range in approaches to 'integration' may be as broad as people's interpretation and perceived implications of 'integration'.

6 References

Project documents:

- ❖ Global Trachoma Mapping Project: Logframe
- ❖ Global Trachoma Mapping Project: Introduction Pack
- ❖ Global Trachoma Mapping Project: Annual Review Year 1. Sightsavers, June 2013
- ❖ Global Trachoma Mapping Project: Annual Review Year 2. Sightsavers, May 2014
- ❖ Global Trachoma Mapping Project: Annual Review Year 3. Sightsavers, May 2015
- ❖ Notes from all meetings of the GTMP Project Advisory Committee (1-9)
- ❖ GTMP Evaluation Report: Mid-Term Review, June 2014. Sightsavers (plus Appendices)
- ❖ Sightsavers Management Response to GTMP Mid-Term Review, 2014
- ❖ Sightsavers NTD Organisation Chart
- ❖ Elimination of Blinding Trachoma: Ten year strategic fast tracking plan in 24 countries. Sightsavers, November 2011
- ❖ Business Case and Intervention Summary. Intervention Summary: Global Trachoma Mapping, 2012
- ❖ Trachoma SAFE Implementation: Commercial Proposal. Submitted to DFID by International Coalition for Trachoma Control (ICTC), 2013
- ❖ Global Trachoma Mapping Project: Technical Proposal. Submitted to DFID by Sightsavers, 2011
- ❖ Global Trachoma Mapping Project: End of Project Communication Pack, 2016
- ❖ Unit Cost Analysis Update Note. Sightsavers, 2016
- ❖ The GET2020 Database, managed by the International Trachoma Initiative

Relevant Literature:

- ❖ Courtright P, West SK. Contribution of sex-linked biology and gender roles to disparities with trachoma. *Emerg Infect Dis.* 2004 Nov;10(11):2012-6
- ❖ Resnikoff S et al. Global magnitude of visual impairment caused by uncorrected refractive errors in 2004. *Bulletin of the World Health Organization*, 2008, 86:63–70
- ❖ Pascolini D, Mariotti SP. Global estimates of visual impairment: 2010. *Br J Ophthalmol*, 2012, 96(5): 614–618
- ❖ World Health Organization. Global Alliance for the Elimination of Blinding Trachoma: progress report on the elimination of trachoma, 2012. *Weekly Epidemiological Report*, 24(88), 242–251. Retrieved from <http://www.who.int/wer>
- ❖ WHO Weekly epidemiological record, Relevé épidémiologique hebdomadaire, 26 SEPTEMBER 2014, 89th year / 26 SEPTEMBRE 2014, 89e année, No. 39, 2014, 89, 421-428. <http://www.who.int/wer>
- ❖ Ejere HO, Alhassan MB, Rabiou M. (20 February 2015). "Face washing promotion for preventing active trachoma." *Cochrane Database of Systematic Reviews* 2015 2 (2): CD003659
- ❖ Solomon AW, Pavluck AL, Courtright P, Aboe A, Adamu L, Alemayehu W et al. The Global Trachoma Mapping Project: Methodology of a 34-Country Population-Based Study. *Ophthalmic Epidemiol.* 2015;22(3):214-25
- ❖ Solomon AW, Kurylo E. The Global Trachoma Mapping Project. *Community Eye Health.* 2014;27(85):18
- ❖ Solomon AW, Zondervan M, Kuper H, et al. *Trachoma control: A guide for program managers.* Geneva: World Health Organization; 2006

- ❖ World Health Organization. Report of the 3rd global scientific meeting on trachoma, Johns Hopkins University, Baltimore, MA, 19–20 July 2010. Geneva: World Health Organization; 2010
- ❖ Kalua K, Phiri M, Kumwenda I, Masika M, Pavluck AL, Willis R et al. Trachoma Mapping in Malawi with the Global Trachoma Mapping Project (GTMP). *Ophthalmic Epidemiol.* 2015 May 4; 22(3): 176–183
- ❖ Haddad D. Trachoma: the beginning of the end? *Community Eye Health.* 2012;25:18
- ❖ Mabey DC, Solomon AW, Foster A. Trachoma. *Lancet.* 2003;362:223–229.
- ❖ Hu VH, Harding-Esch EM, Burton MJ, Bailey RL, Kadimpeul J, Mabey DC. Epidemiology and control of trachoma: systematic review. *Trop Med Int Health.* 2010 Jun;15(6):673-91
- ❖ Ejere HO, Alhassan MB, Rabiou M: Face washing promotion for preventing active trachoma. *Cochrane Database Syst Rev* 2015, 2: Cd003659
- ❖ Chen C, Cromwell EA, King JD, Mosher A, Harding-Esch EM, Ngondi JM, Emerson PM: Incremental cost of conducting population-based prevalence surveys for a neglected tropical disease: the example of trachoma in 8 national programs. *PLoS Negl Trop Dis* 2011, 5:e979
- ❖ Marks, M., et al., Impact of Community Mass Treatment with Azithromycin for Trachoma Elimination on the Prevalence of Yaws. *PLoS Negl Trop Dis*, 2015. 9(8): p. e0003988
- ❖ Marks, M., et al., Mass drug administration of azithromycin for trachoma reduces the prevalence of genital Chlamydia trachomatis infection in the Solomon Islands. *Sex Transm Infect*, 2016
- ❖ Pope C, Ziebland S, Mays N. Qualitative research in health care. *Analysing qualitative data.* *BMJ.* 2000;320(7227):114-6

7 Appendices

- ❖ Appendix 1: GTMP End of Project Evaluation Terms of Reference
- ❖ Appendix 2: Evaluation criteria rating guidance
- ❖ Appendix 3: Evaluation matrix
- ❖ Appendix 4: Field schedule and list of informants
- ❖ Appendix 5: Interview topic guide
- ❖ Appendix 6: Information sheet and consent form
- ❖ Appendix 7: Year 3 logframe and project achievements
- ❖ Appendix 8: List of implementing partners
- ❖ Appendix 9: MTR recommendations, management response and action plan
- ❖ Appendix 10: Risk management strategy

Terms of Reference

Global Trachoma Mapping Project

End of Project Evaluation

1. Background

1.1 Project name

Global Trachoma Mapping Project (GTMP)

1.2 Project duration

Initial project term: 21st July 2012 – 31st June 2015, extended to 31st December 2015

1.3 Project budget

£10.6m

1.4 Consortium members and project partners

1.5 The key project partners are Sightsavers, the International Trachoma Initiative (ITI), London School of Hygiene and Tropical Medicine (LSHTM) and the World Health Organization (WHO). The project is further supported by the International Coalition for Trachoma Control (ICTC) member organisations.

1.6 General information on project area

The project works across a number of countries in Africa, Asia, S. America, the Pacific and the Eastern Mediterranean

1.7 Project design, goal, objectives, and outputs.

Trachoma, one of the Neglected Tropical Diseases (NTDs), is a disease of poverty; it is endemic among poor communities characterised by low access to adequate water and sanitation services, over-crowded living conditions, and limited access to healthcare services. The cycle of poverty and infection caused by trachoma can limit access to education and prevent individuals from being able to work or care for themselves or their families. Globally, about 110 million people live in confirmed trachoma endemic areas and another 210 million live in areas where trachoma is suspected but from which there are no data to confirm or guide interventions⁶¹. It is estimated that up to 41 million people, mostly women and children, have active trachoma⁶². Pre-school age children are most at risk of infection⁶³.

⁶¹ Haddad D, Community Eye Health. Ten years left to eliminate blinding trachoma (2010) September; 23(73):38 PMID:PMC2975121
Ten years left to eliminate blinding trachoma

⁶² The International Trachoma Initiative, The World's Leading Cause of Preventable Blindness Available at www.trachoma.org/about-trachoma

⁶³ Emerson P and Frost L, with Bailey and Mabey D, Implementing the SAFE Strategy for Trachoma Control The end in sight. 2020 INSight (2011) www.trachomacoalition.org/sites/default/files/uploads/resources/ICTCEnglishJuly21.pdf

More than two million people are currently either blind or suffer from a very painful disability because of trachoma⁶⁴. A further 4.6 million have reached the trichiasis stage of the disease, in which they are at immediate risk of blindness because of repeated trachoma infections have caused their eyelashes to turn inwards and rub against their eye, damaging the cornea⁶⁵. It has been estimated that the annual lost productivity costs of trachoma are as much as US\$2.9 billion⁶⁶.

Sightsavers is the lead agency on a DFID-funded project to globally map blinding trachoma by 2015. The project will ensure that baseline prevalence surveys are conducted across all suspected endemic districts globally. The total budget is £10.6m. (DFID reference: ARIES: 203145).

Impact: Global elimination of blinding trachoma by 2020

Outcome: Blinding Trachoma globally mapped by 2015

DFID funding is provided to coordinating agencies in each country who lead on national level activities with the National Ministry of Health and to implementing partners who are responsible for district level activities with local ministry of health staff.

By the end of the project's third year (numbers will be revised for project end), over 2.2 million people have been examined across 25 countries⁶⁷ and over 51 million data items have been processed. 1,494 districts have completed mapping (121% of the original target). This represents a total population of 212 million people.

Countries mapped by the end of the third year:

Africa	16 countries (15 using GTMP methods)	1,142 districts
Eastern Mediterranean	3 countries	214 districts
Asia and Pacific	6 countries (5 using GTMP methods)	138 districts

⁶⁴ International Coalition for Trachoma Control The end in sight. 2020 INSight (2011) www.trachomacoalition.org/sites/default/files/uploads/resources/ICTCEnglishJuly21.pdf

⁶⁵ ibid

⁶⁶ Frick K D, Hanson CL, Jacobson GA Global burden of trachoma and economics of the disease AM J Trop Med Hyg. (2003) Nov;69(5 Suppl):1-10. Source Department of Health Policy and Management, John Hopkins Bloomberg School of Public Health, Baltimore, Maryland 21205-1901, USA kfrick@jhsph.edu

⁶⁷ Benin, Cambodia, Chad, Cote d' Ivoire, DRC, Egypt, Eritrea, Ethiopia, Fiji, Guinea, Laos, Malawi, Mozambique, Nigeria, Senegal, Solomon Islands, Sudan, Tanzania, Uganda, Vanuatu, Zambia, Zimbabwe, Yemen (Cameroon and Nepal were mapped without use of GTMP methods)

Over the project's first three years GTMP has worked with 23 different organisations, 95% of districts mapped have been mapped with GTMP standardised methodology and systems. We anticipate by the end of the programme that GTMP standardised methodology and systems will have been deployed in 99%⁶⁸ of the total number of districts mapped between 2012 and 2015. We expect that GTMP's systems and methods will be adopted for trachoma survey use in Central and South America; including Mexico, Guatemala, Brazil and Colombia. GTMP are currently in discussion with PAHO implementing partner about supporting the mapping of two districts in Colombia in 2015.

A legacy of the project is the adoption and use of the GTMP methodology and of the use of android smartphones to conduct other neglected tropical disease surveys. GTMP methodology has been used across USAID and the Children's Investment Fund Foundation funded neglected tropical disease mapping (including: Trachoma, Schistosomiasis, Soil Transmitted Helminths, Yaws, Rabies and Lymphatic Filariasis). Android smartphones will be used for survey purposes by The Queen Elizabeth Diamond Jubilee Trust Trachoma Initiative and are planned for use on the DFID SAFE Implementation programme.

GTMP has delivered over half of all the trachoma surveys that have ever been conducted (59%). Through collaborative working with the global trachoma community we achieved our target of 1,238 districts on the 23rd September 2014, 9 months ahead of our deadline and under budget.

Over the last year, additional data about trachoma have been presented by 13 ministries of health. The additional requests for baseline surveys to be conducted increased the requirement of GTMP to deliver WHO standardised training, mapping methodology and system support. In 2014, GTMP's estimate of the total number of potential districts to be mapped, including those already mapped since the project started and those hoped to be mapped in the future, was about 1,900. This is over 50% above the original number of districts proposed to DFID in 2012. The dramatic change in the requirement for baseline mapping resulted in a collaboration with USAID who have to date funded GTMP by approximately £6 million through the Envision grant managed by RTI - adopting GTMP systems, methods and processes to complete their baseline trachoma mapping projects.

2. Purpose of Evaluation

The purpose of end of project evaluation is to establish to what extent the project has successfully mapped trachoma in the project countries in line with the project Logframe in an efficient and cost effective manner.

⁶⁸ We estimate 1,603 districts will be mapped by the end of 2015. GTMP methods have been used to map 1,417 districts to 15th May 2015 and it is anticipated that a further 109 districts will be mapped by GTMP with GTMP methods in 2015.

2.1 EVALUATION CRITERIA

In order to generate the information needed to achieve this goal, the consultant(s) will utilise the 7 criteria used by Sightsavers, as explained below. The consultant(s) will develop specific evaluation questions to answer the following questions under each of the criteria.

RELEVANCE

1. How does GTMP contribute/ fit into global targets and goals for trachoma i.e. GET2020 elimination goals?

EFFECTIVENESS

2. To what extent have the objectives and planned outputs and activities been met? What were the major factors influencing the achievement or non-achievement of the objectives?
3. To what extent have the accepted recommendations of the Mid-Term Review been taken forwards and addressed?
4. What have been the most significant lessons learned about working in locations with less infrastructure, human resource capacity or security?
5. How has GTMP helped to ensure quality in its mapping training and mapping implementation?
6. How effective has GTMP been sharing information available and disseminating findings within the terms of the grant?

EFFICIENCY

7. To what extent has the project been able to develop, track and incorporate value for money mechanisms (such as the unit cost data analysis)?
8. To what extent, since mid-term, have project management tools and decision making been effective in the delivery of GTMP?
9. Was the programme implemented in a timely and efficient manner according to plans and budget objectives?

IMPACT

10. What is and will be the usage/uptake of the data produced by GTMP and has the data been utilized in the intended manner?
11. Has the mapping data (trachoma and WASH) been used in any other way beyond the intended applications?
12. Has GTMP developed any new approaches, processes or tools which can be used in similar or other programme contexts? And are these likely to be taken up?
13. Were there any unintended consequences or impacts of GTMP? For example, to what extent have other implementing partners (e.g. RTI and FHI 360) used GTMP methodology and smartphones to conduct trachoma mapping and what conditions needed to exist for this to happen?

SUSTAINABILITY

14. What is the continued relevance of the GTMP data over time? e.g. will it remain a useful baseline against which to compare new data that will be generated?

15. Is the prevalence data available for grant funding and resource mobilisation by NGOs, ministries and trachoma consortia?
16. Do the respective MoHs have a sense of ownership of the mapping and results, and what factors influence any differences observed?

WORKING AT SCALE

17. What methods have been effective in mobilising multiple programme sites and partners concurrently within the programme timescale?
18. What methods have been effective at working at scale?

COHERENCE/COORDINATION

19. To what extent has working in partnership (internal to GTMP) impacted upon the success of the project? What were the biggest successes and challenges in the consortium approach?
20. What has been the value and effectiveness of the GTMP tripartite partnership arrangement? (MoH, implementing agency and GTMP core body of operations)
21. To what extent has the project been disability and gender responsive?

3. Review Team

The evaluation will be conducted by an external consultant, or evaluation team. The consultant/s or firm will have demonstrated competence in having undertaken similar work before, including experience in programme design and management, planning, monitoring and evaluation.

The lead evaluator will have as a minimum the following core competencies; international public health specialist experience preferably in Neglected Tropical diseases, possess projects/programme analysis, report writing, oral presentation skills. S/he should have extensive experience in conducting medium scale evaluations.

The evaluator/evaluation team will work closely with an evaluation working group. The role of this group (or their representatives) will include validation of strategic information, issuing of relevant directives or endorsement of necessary proposals during the course of the exercise and coordination of local logistics. The working group will include the following: Anthony Solomon, Tom Millar, Siobhain McCullagh, Laura Senyonjo, Susan Pieri, and Sarah Huntbach-Noel.

4. Methodology

The evaluation team should detail their approach and methodologies to be used to indicate how they will fulfil the requirements of the ToR in their Expression of Interest application. These may include qualitative and quantitative tools as appropriate to conduct this evaluation. The evaluator/evaluation team is responsible for developing the evaluation framework and methodology that addresses the key evaluation questions.

5. Reference Material

- Proposal documents and Logframe
- GTMP Business Case
- Year 1 report to DFID
- Year 2 report to DFID
- Year 3 report to DFID
- GTMP Mid Term Evaluation
- Sightsavers Management Response to GTMP Mid-term Evaluation
- GTMP Minutes of Meetings

6. Timeframes

The duration of the assignment will be approximately 42 working days and the evaluation team will be expected to demonstrate through their expression of interest indicative timeframes for undertaking the key activities.

The evaluation will follow the key phases:

Phase I - Desk study: Review of documentation and elaboration of field study

The evaluator/s will review relevant documentation from section 5 above (Reference material). Based on this review, they will produce an inception report which will include an elaborated plan, methodology and sampling strategy of the data collection for this study. The evaluation will only proceed to the next stage upon approval of this inception report. An appropriate inception report format will be made available to the team as part of this TOR.

Phase II: Field Data Collection

This phase of the evaluation will seek to collect primary data on the key evaluation questions explained under evaluation criteria. The evaluator/s will use the agreed plan, methodology and sampling strategy from phase 1 to conduct the field work.

Phase III – Data analysis and production of evaluation report

The team will draw out key issues in relation to evaluation questions and produce a comprehensive report. This analysis should draw on the wider issues in the development sector and to what extent the use of funding represents value for money.

The table below summarizes the key activities outlined above

6.1 EXPECTED NUMBER OF DAYS INPUT BY EVALUATOR/EVALUATION TEAM

Phase	Activity	No of Days
<i>Phase I – Desk study: Review of documentation and</i>	Desk research /literature Review	4 days
	Inception Report	2 days
	Revision of collection methods and	1 days

Phase	Activity	No of Days
elaboration of field Study	tools based on inception report comments	
Phase II: Field Data Collection	Field Visits (12 fieldwork days + 3 UK based phone/Skype interview says)	15 days
Phase III – Analysis and production of evaluation report	Debriefing (In-country) (Included above)	0 days
	Data analysis and preparation of draft report	8 days
	Review of draft report from feedback.	3 days
	Submission of final report	1 days
Total		34 days

7. Outputs/ Deliverables

The minimum expected outputs are –

1. An Inception Report
2. A draft Evaluation Report
3. A final Evaluation Report
4. Data sets (Excel or Word files) – for all collected data (quantitative and qualitative)
5. PowerPoint presentation summary, summarizing the key findings from the evaluation presented under the headings of the evaluation criteria

7.1 INCEPTION REPORT

The inception report should be available to Sightsavers within six working days of project commencement. Feedback will be provided within seven working days following acknowledged receipt of inception report.

Field work should not commence until an agreement on the report has been made.

7.2 DRAFT REPORT

A draft report (using the appropriate reporting format and not more than 40 pages including executive summary and excluding annexes) should be submitted to the evaluation working group, who will liaise with the consortium members for feedback. Sightsavers will provide feedback on the draft version to the evaluation team within 3 weeks after receiving the draft report.

7.3 FINAL REPORT

The final report should be submitted to the agreed Sightsavers contact point within 5 working days after receiving the feedback from Sightsavers on the draft report. The appropriate reporting format (see section 8 below) will be made available to the winning bid at the commencement of this contract.

7.4 DATA SETS

The evaluation team will be expected to submit complete data sets (in Access/Excel/Word) of all the quantitative data gathered during the exercise. These data sets should be provided at the time of submission of the final report.

7.5 SUMMARY FINDINGS

On submission of the final report, the team is expected to submit a PowerPoint presentation (**maximum 12 slides**), summarizing the methodology, challenges faced, key findings under each of the evaluation criteria and main recommendations.

8. Reporting Format

Detailed guidelines on how to structure the evaluation report will be provided to the evaluation team prior to commencement of the activity, and reporting templates will be provided which the team should use for the Inception Report and the Evaluation Report.

Please note that penalties up to 10% of agreed fees may be imposed for noncompliance with the requirements 7.1 to 7.4 and reporting format provided.

9. Administrative/Logistical support

9.1 BUDGET

The consultant should submit to Sightsavers an Expression of Interest indicating their daily rates for the assignment. Sightsavers will assess Expression of Interests submitted according to standardised quality assessment criteria, as well as on the basis of their competitiveness and value for money in line with the budget available for this evaluation. The daily fees proposed by the applicant should exclude expenses such as:

- Economy class airfares and visas. (where applicable)
- In-country transportation
- Hotel accommodation (bed, breakfast and evening meals taken at the place of accommodation)
- Stationery and supplies
- Meeting venue hire and associated equipment eg projectors

Sightsavers usually cover the above costs, unless otherwise stated.

The consultant/team is expected to cover all other costs and materials not mentioned above related to this exercise as part of their daily fees or equipment (eg laptops, medicines required for overseas travel etc.).

9.2 SCHEDULE OF PAYMENT

The following payment schedule will be adhered to:

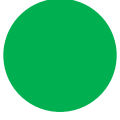



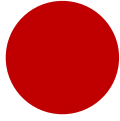

- On signing the contract: 20%
- On acceptance and approval of inception report: 20%
- On submission of draft final report: 30%
- On acceptance and approval of final report: 30%

9.3 MODE OF PAYMENT

As agreed by Sightsavers and the consultant.

Appendix 2

Evaluation Criteria Rating Guidance

	Excellent	<p>There is strong evidence that the project fully meets all or almost meets all aspects of the evaluation criterion under consideration. The findings indicate <u>excellent and exemplary</u> achievement/progress/attainment.</p> <p>This is a reference for highly effective practice and an Action Plan for positive learning should be formulated.</p>
	Satisfactory	<p>There is strong evidence that the project mostly meets the aspects of the evaluation criterion under consideration. The situation is considered <u>satisfactory, but there is room for some improvements.</u> There is need for a management response to address the issues which are not met.</p> <p>An Action Plan for adjustments should be formulated to address any issues. Evaluation findings are potentially a reference for effective practice.</p>
	Attention	<p>There is strong evidence that the project only partially meets the aspects of the evaluation criterion under consideration. There are <u>issues which need to be addressed and improvements are necessary</u> under this criterion.</p> <p>Adaptation or redesign may be required and a clear Action Plan needs to be formulated.</p>
	Caution	<p>There is strong evidence that the project does not meet the main aspects of the evaluation criterion under review. There are <u>significant issues which need to be addressed</u> under this criterion.</p> <p>Adaptation or redesign is required and a strong and clear Action Plan needs to be formulated. Evaluation findings are a reference for learning from failure.</p>
	Problematic	<p>There is strong evidence that the project does not meet the evaluation criterion under consideration and is performing very poorly. There are <u>serious deficiencies</u> in the project under this criterion.</p> <p>There is need for a strong and clear management response to address these issues. Evaluation findings are definitely a reference for learning from failure</p>
	Not Sufficient Evidence	<p>There is <i>not sufficient evidence</i> to rate the project against the criterion under consideration.</p> <p>The project needs to seriously address the inability to provide evidence for this evaluation criterion.</p>

Appendix 3

Evaluation Matrix

Note:

Coding for informants:

- Mapping activity staff (graders and recorders trainers, graders and trainers, supervisors) - MAS
- In-country implementing partner and Sightsavers staff, Ministry of Health staff and other national level key informants - NLI
- Global Sightsavers staff and other global level key informants – GLI

For documents:

- Key documents to be reviewed as related to each question are listed but the list is not exhaustive; additional documents may also be reviewed.

	Key Evaluation question to be addressed	Data Collection Technique		
		Primary Data Tools	Secondary Data Tools	Data Source
	Relevance			
1.	How does GTMP contribute/ fit into global targets and goals for trachoma i.e. GET2020 elimination goals?	FGD and IDI	Document review	Informants: MAS, NLI, GLI Key documents: Logframe, Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes, Elimination of Blinding Trachoma: Ten year strategic fast tracking plan, Business Case and Intervention Summary, Technical Proposal, wider peer-reviewed literature
	Effectiveness			

2.	To what extent have the objectives and planned outputs and activities been met? What were the major factors influencing the achievement or non-achievement of the objectives?	FGD and IDI	Document review	Informants: MAS, NLI, GLI Key documents: Logframe, Annual Reviews, MTR and MTR Management Response
3.	To what extent have the accepted recommendations of the Mid-Term Review been taken forwards and addressed?	IDI	Document review	Informants: GLI Key documents: Logframe, Annual Reviews, MTR and MTR Management Response
4.	What have been the most significant lessons learned about working in locations with less infrastructure, human resource capacity or security?	FGD and IDI	Document review	Informants: MAS, NLI, GLI Key documents: Logframe, Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes
5.	How has GTMP helped to ensure quality in its mapping training and mapping implementation?	FGD and IDI	Document review	Informants: MAS, NLI, GLI Key documents: Logframe, Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes
6.	How effective has GTMP been sharing information available and disseminating findings within the terms of the grant?	IDI	Document review	Informants: NLI, GLI Key documents: Logframe, Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes
Efficiency				

7.	To what extent has the project been able to develop, track and incorporate value for money mechanisms (such as the unit cost data analysis)?	IDI	Document review	Informants: NLI, GLI Key documents: Logframe, Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes, costing analysis report (as available)
8.	To what extent, since mid-term, have project management tools and decision making been effective in the delivery of GTMP?	IDI	Document review	Informants: NLI, GLI Key documents: Logframe, Annual Reviews, MTR and MTR Management Response
9.	Was the programme implemented in a timely and efficient manner according to plans and budget objectives?	FGD and IDI	Document review	Informants: MAS, NLI, GLI Key documents: Logframe, Annual Reviews, MTR and MTR Management Response
Impact				
10.	What is and will be the usage/uptake of the data produced by GTMP and has the data been utilized in the intended manner?	IDI	Document review	Informants: NLI, GLI Key documents: Logframe, Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes
11.	Has the mapping data (trachoma and WASH) been used in any other way beyond the intended applications?	IDI	Document review	Informants: NLI, GLI Key documents: Logframe, Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes

12.	Has GTMP developed any new approaches, processes or tools which can be used in similar or other programme contexts? And are these likely to be taken up?	IDI	Document review	Informants: NLI, GLI Key documents: Logframe, Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes
13.	Were there any unintended consequences or impacts of GTMP?	IDI	Document review	Informants: NLI, GLI Key documents: Logframe, Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes
Sustainability				
14.	What is the continued relevance of the GTMP data over time? e.g. will it remain a useful baseline against which to compare new data that will be generated?	FGD and IDI	Document review	Informants: MAS, NLI, GLI Key documents: Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes, wider peer-reviewed literature
15.	Is the prevalence data available for grant funding and resource mobilisation by NGOs, ministries and trachoma consortia?	IDI	Document review	Informants: NLI, GLI Key documents: Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes
16.	Do the respective MoHs have a sense of ownership of the mapping and results, and what factors influence any differences observed?	IDI	Document review	Informants: NLI, GLI Key documents: Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes

Working at scale				
17.	What methods have been effective in mobilising multiple programme sites and partners concurrently within the programme timescale?	IDI	Document review	Informants: GLI Key documents: Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes
18.	What methods have been effective at working at scale?	IDI	Document review	Informants: GLI Key documents: Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes
Coherence/ coordination				
19.	To what extent has working in partnership (internal to GTMP) impacted upon the success of the project? What were the biggest successes and challenges in the consortium approach?	IDI	Document review	Informants: NLI, GLI Key documents: Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes
20.	What has been the value and effectiveness of the GTMP tripartite partnership arrangement? (MoH, implementing agency and GTMP core body of operations)	IDI	Document review	Informants: NLI, GLI Key documents: Annual Reviews, MTR and MTR Management Response, Advisory and Steering Committee meeting notes
21.	To what extent has the project been disability and gender responsive?	FGD and IDI	Document review	Informants: MAS, NLI, GLI Key documents: Annual Reviews, MTR and MTR Management Response

Appendix 4

Field schedule and list of informants

❖ Country visits

Date	Activity	Details	Location
8, December 2015	IDI (in person)	Director, BICO	Lilongwe, Malawi
2, February 2016	Orientation to, and discussion about, in-country data collection IDIs (in person)	NTD Programme Manager, Sightsavers Tanzania NTD Programme Manager, Sightsavers Tanzania Finance and Support Services Manager, Sightsavers Tanzania Country Director, Sightsavers Tanzania	Dar Es Salaam, Tanzania
3, February 2016	IDIs (in person) FGD (in person)	Master Grader Trainer and Supervisor National NTD Coordinator, MoH GTMP Epidemiologist Graders and recorders trainers and supervisors	Dar Es Salaam, Tanzania
4, February 2016	IDIs (in person) IDIs (by phone)	Programme Officer, Sightsavers Tanzania Principal Investigator, GTMP (Tanzania) NTD Programme Manager, Zanzibar MoH	Dar Es Salaam, Tanzania
5, February 2016	FGDs (in person) IDI (by phone)	Recorders Grader	Dar Es Salaam, Tanzania
8, February 2015	IDIs (in person)	NTD Coordinator, FMOH Coordinator, National Schistosomiasis/ Soil Transmitted Helminths	Abuja, Nigeria

		Control Programme, NTD Division, FMOH Eye Health Coordinator, FMOH Coordinator, National Trachoma Control Program, FMOH Resident Program Advisor, ENVISION project Coordinator, LF Programme, FMOH	
9 February, 2016	IDIs (in person) FGD (in person)	Grader trainer WHO representative, Nigeria NTD Programme Manager, Sightsavers Nigeria Graders and recorders	Abuja, Nigeria
10 February, 2016	IDIs (in person) IDIs (by phone)	Programme Coordinator, CBM/Hands (Health and Development Support Programme) Country Director, Sightsavers State Co-ordinator and Supervisor for GTMP, Kaduna State Co-ordinator and Supervisor for GTMP, Jigawa	Abuja, Nigeria
11 February, 2016	IDIs (in person) IDIs (by phone)	Executive Director, MITOSATH Ophthalmologist and GTMP supervisor, Kaduna district	Abuja, Nigeria

❖ Global level informants

Date	Activity	Details	Location
29 January 2016	IDI (by Skype)	Epidemiologist/ Technical advisor Epidemiologist/ master trainer, Ethiopia	From UK
3, February, 2016	IDI (by Skype)	Deputy Technical Director, Envision	From Tanzania
4, February 2016	IDI (by Skype)	Informatics Applications Advisor, RTI International	From Tanzania
5, February 2016	IDI (By Skype)	Data Manager, RTI International	From Tanzania
8, February 2016	IDI (in person)	Global Epidemiologist, Nigeria	Abuja, Nigeria
10, February, 2016	IDI (By Skype)	Head of Finance and Risk, GTMP	From Nigeria
11, February 2016	IDI (in person)	NTD Director, Sightsavers	Abuja, Nigeria
	IDI (by Skype)	Epidemiologist, Sightsavers	From Nigeria
12, February 2016 (and follow up interview 29, February 2016)	IDI (in person and Skype for follow up)	Operations Director, NTDs, Sightsavers	Abuja Nigeria
22, February 2016	IDI (By Skype)	Project Manager/Director of Operations GTMP, Sightsavers	From UK
29, February 2016	IDI (by Skype)	Senior NTD Advisor, USAID	From UK
5, March 2016	IDI (by Skype)	Chief Scientist, GTMP	From UK
18, March 2016	IDI (by Skype)	NTD Technical Advisor – WASH and Behavioural Change	From UK

Appendix 5

Global Trachoma Mapping Project End of Project Evaluation

Interview Topic Guide

For use in Focus Group Discussions and In-Depth Interviews

INTERVIEW DETAILS

Note the following information for each interviewee:

- Date of interview
- Interviewee category
- Name of interviewee
- Job title
- Gender
- Location of interview
- Any notes on interview context
- Length of interview (start/end time)

INTERVIEW QUESTIONS

Stakeholder categories and codes:

- Mapping activity staff (graders and recorders trainers, graders and recorders, supervisors) (MAS)
- In-country implementing partner and Sightsavers staff, Ministry of Health staff and other national level key informants (NLI)
- Global Sightsavers staff and other global level key informants (GLI)

Note: The interview approach will be semi-structured. While following the order and scope of enquiry provided below, the interviewer will adjust the specific line of questioning and probing in response to answers provided by the respondent during the course of the interview and to enable relevance to the specific experience of the respondent.

Questions (P=probe)	Relevant Stakeholders	Relevant evaluation question
Background/ warm up		
<i>(Greetings and informal conversation.)</i> Can you please tell me about your role in the GTMP.	All	-
Effectiveness and working at scale		
Do you think this project has been effective in its core	All	2

aims of mapping district level trachoma in suspected endemic areas? (P) Why/why not?		
What do you see as the overall strengths of the project? (P): What key factors have led to success or achievement under the project?	All	2
Does the project have any areas of weakness? (P): What key factors have hindered success or achievement under the project?	All	2
Is there anything else you wish to add about general quality of the mapping training and mapping implementation conducted by GTMP? (P) Have there been any factors which have hindered high quality? What factors have supported high quality mapping? What could have been done better?	All	5
Thinking specifically about field level implementation, what can you tell me about the key lessons learned from working in locations with less infrastructure, human resource capacity or security? (P) What challenges have these presented? How have these been overcome? What recommendations could be taken forward for other projects working in these contexts?	GLI	4
Thinking specifically about field level implementation, what can you say about operating in Nigeria/ Tanzania in terms of infrastructure, human resource capacity and security? Do these present any challenges? How have they been overcome?	MAS, NLI	4
What methods or approaches have been effective in mobilising multiple programme sites and partners at the same time? (P): What systems have supported this?	GLI	17
Building on the above, how has GTMP been able to implement effectively at large scale? What have been the challenges in operating at such large scale? How have these been overcome?	GLI	18
Has the delivery of GTMP been guided by appropriate and effective decision making? (P): How? What has supported effective decision making? Why/why not?	NLI, GLI	8
Efficiency		
Would you say that GTMP has been implemented in a timely and efficient manner (according to plans and budget objectives?) (P): Why/why not? What factors have hindered/ supported this?	GLI	9
Would you say that GTMP in Nigeria/ Tanzania has been implemented in a timely and efficient way? (P): Why/why not? What factors have hindered/	MAS, NLI	9

supported this?		
Do you think the logframe has effectively guided the measurement of project achievement?	GLI	2
It would be good to discuss the accepted recommendations of the Mid-Term Review and in particular which have been effectively addressed. Can you please comment on this, suggesting possible reasons as to why specific recommendations have or have not been taken forward and effectively addressed? (<i>Document of management response to MTR recommendations can be provided</i>).	GLI	3
Since the Mid-Term Review, would you say that project management tools have effectively supported the delivery of GTMP? (P): How? Why/why not?	NLI, GLI	8
How has GTMP considered and measured value for money? (P): What specific mechanisms have been put in place? Have these been useful? How? What challenges have these posed? How have these been overcome? What specific approaches have helped to reduce costs?	Some NLI (implementing partner and Sightsavers staff), GLI	7
What key lessons have been learned from GTMP's experience in measuring value for money? (P): What recommendations in relation to value for money, project efficiency or cost reduction could be made to other programmes initiating similar activities?	GLI	7
Impact		
How has GTMP <u>shared</u> and <u>disseminated</u> mapping data and other findings from the project (at different levels)? Have these approaches been effective? Why/why not? (P) What else could have done to boost the sharing of information or the dissemination of findings (at different levels)?	MAS, NLI, GLI	6
Thinking about project impact, can you tell me how the project data has been <u>used</u> (at local, national and global levels)? What may have hindered use and uptake of the data? How could the project maximise use and uptake of the data from this point? (P): Questions above in relation to treatment, TT surgery, WASH. Have there been any challenges relating to in-country (ethical) approval of the data? How has GTMP information dissemination (and specifically Trachoma Atlas) contributed to the building of momentum for trachoma action planning, SAFE implementation, fundraising?	MAS, NLI, GLI	10
Has the mapping data (on trachoma and WASH) been used in any other way beyond what was originally intended under GTMP (i.e. enabling trachoma	NLI, GLI	11

prevalence estimates to support SAFE implementation planning)? What factors have supported this? What has hindered this? (P): At local, national, global levels. How has the WASH data been used?		
Has GTMP developed any new approaches, processes or tools which could be used in similar or other programme contexts? Are these likely to be taken up? Why/ why not? (P): Could the mapping innovations under GTMP be useful for the planning/implementation of other similar programmatic activity? How? In Nigeria, GTMP has integrated trachoma surveys with the mapping of other NTDs – Schisto, STH and LF mapping using android technology – can you tell me more about this?	NLI, GLI	12
Were there any unintended consequences or impacts of GTMP?	NLI, GLI	13
What has GTMP done to build in-country capacity to utilise data for trachoma action planning? Have these been useful? Why/why not?	MAS, NLI, GLI	10
Coherence/ coordination		
How has the partnership approach within GTMP (i.e. MoH, implementing agency and GTMP core body of operations) impacted upon the success of the project? What were the main successes of the consortium approach? And the main challenges? How were these overcome? What coordination systems/ tools have been most effective? Why?	NLI, GLI	19, 20
What can you say about GTMP coordination in relation to integrated NTD mapping? WASH resource assessment? What opportunities exist for truly integrated NTD mapping? How has GTMP contributed to the learning on this?	NLI, GLI	19, 20
Has GTMP been disability and gender responsive? How? (P): Do you think there was a need for GTMP to be more disability and gender responsive? Why/why not? How could this have been done?	MAS, NLI, GLI	21
Relevance		
Building on what we have already discussed, how has this project been relevant or contributed to the global aim to eliminate trachoma by 2020? (P) Were the aims appropriate? Why/why not?	All	1
Sustainability		
Will the GTMP data continue to be relevant over time? Why/ why not? What can be done to maintain the usefulness of the data? (P): Do you think the data will remain a useful baseline against which to compare new data that will be	MAS, NLI, GLI	14

generated? How can the legacy of GTMP be continued? What are the most important aspects? What challenges exist to continuing the relevance of GTMP over time?		
Is the prevalence data available for grant funding and resource mobilisation in-country? And among different stakeholders i.e. NGOs, ministries, trachoma consortia? How can this effort be supported?	NLI, GLI	15
Does the MoH/respective MoHs have a sense of ownership of the mapping and the results? Why/ why not? What factors or activities have contributed to or hindered this sense of ownership? (P): What factors influence any differences observed across countries?	NLI, GLI	16
Other		
Is there anything else you would like to add in relation what to what we have already discussed?	All	-
Is there anything else you would like to add on the overall value of the project? What has been learned from the project? What should have been done differently? How can we maximise the opportunities presented from the project going forward? <i>(Closing conversation and appreciation of the respondent's time)</i>	All	-

Supporting documents (to have to hand during IDIs):

- Sightsavers Management Response to GTMP Mid-Term Review, 2014.

Appendix 6

Global Trachoma Mapping Project End of Project Evaluation

Information Sheet and Consent Form

You are invited to participate in an end of term evaluation of the Global Trachoma Mapping Project which is being conducted by Sightsavers.

Your participation in this evaluation is entirely voluntary. You should read the information below (or it will be read to you) and you should ask questions about anything you do not understand, before deciding whether or not to participate. You are being asked to participate in this study because you have been involved in the delivery of the Global Trachoma Mapping Project.

Purpose of the evaluation

The purpose of this evaluation is to establish the extent to which the project has successfully mapped trachoma in the project countries in an efficient and cost effective manner. The evaluation will enable a reflection on the implementation process of the project in order to contextualise overall achievements, and for the consideration of wider implications of project activity which could be taken forward in the next phase of trachoma elimination.

Procedure

You will be asked a series of questions about your experience of the programme. The interview will take approximately one hour. During the interview the researcher will write some notes and, if you agree, will tape record the interview. Let them know if you would prefer them just to take notes.

Potential risks and discomforts

We expect that there will no risks, discomforts or inconveniences arising from your interview. If discomforts become a problem, you may discontinue your participation.

Payment for participation

You will not receive any payment or other compensation for participation in this study. There is also no cost to you for participation.

Confidentiality

Any information that is obtained in connection with this evaluation and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Information that can identify you individually will not be released to anyone outside the study and only those directly involved with the research will have access to them. All primary (interview) data collected will be stored in a secure place for a minimum of two years, after which time it will be destroyed.

We may use any information that we get from this study in any way we think is best for publication or education. We may want to include your opinions, ideas or quotes in reports or papers that result from this work. In this case, your name will not be linked to the reported opinions and ideas and we will make sure that no individual can be identified. We will request your permission for your name to appear on a list of interviewed persons.

Participation and withdrawal

You can choose whether or not to be a part of this evaluation. If you volunteer to participate in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you do not wish to answer. There is no penalty if you withdraw from the study.

Identification of the Evaluator

Clare Strachan, Public Health Consultant, contracted by Sightsavers.

Email: clarestrachan10@gmail.com

Consent

I understand the procedures described above and what will be required of me. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

I agree to be in this research study as a stakeholder, and to be interviewed: Yes/No

I agree for my job title to be included on the list of interviewees (no names will be included): Yes/No

I give permission for the interview to be recorded: Yes/No

Name and Job Title of Respondent

Signature of Respondent Date

Appendix 7

GTMP Project Logframe and achievements

Year 3 Logframe (Revised March 2015⁶⁹)

PROJECT NAME							
Global Trachoma Mapping Project							
IMPACT	Impact Indicator 1		Baseline			Target (2020)	Assumptions
Global elimination of blinding trachoma by 2020	% TF (Trachomatous Inflammation – Follicular) in children aged 1-9 years in all countries globally	Planned	>10%			<5%	Completed mapping leads to implementation in all endemic areas Pfizer maintains its commitment to providing the drugs needed to achieve global elimination of blinding trachoma by 2020
		Achieved					
		Source					
	Trachoma Atlas (http://www.trachomaatlas.org)						
	Impact Indicator 2		Baseline			Target (date)	
	Trichiasis cases per 1000 population	Planned	> 1 per 1000 population			< 1 per 1000 population	
Achieved							
Source							
Trachoma Atlas (http://www.trachomaatlas.org)							
OUTCOME	Outcome Indicator 1		Baseline	Milestone 1 (17th June 2013)	Milestone 2 (16th May 2014)	Target (2015) ⁷⁰	Assumptions
Blinding Trachoma globally mapped by 2015	% completion of Trachoma Atlas	Planned	47 ⁷¹ %	58%	84%	100%	All endemic districts are identified and accessible during the project period Medium risk rating
		Achieved		59%	87%	93% ⁷²	
		Source					

⁶⁹ Source of logframe is the Global Trachoma Mapping Project Annual Review Year 3 (22 May 2015)

⁷⁰ June 2015 (3 month lag from end of mapping to data fully uploaded onto Atlas)

⁷¹ Baseline is 1,115 districts + 1,238 to be mapped. This was based on the latest information available at the time of submitting the proposal.

⁷² Calculated by: 1,494 (mapped during GTMP) – 72 (not yet loaded on the Atlas as under analysis) + 1,115 (mapped prior to GTMP) / 1,494 (mapped during GTMP) + 1,115 (mapped prior to GTMP) + 109 (estimation of number of accessible districts in remainder to map and upload to the Trachoma Atlas) = 0.93 or 93%

		Trachoma Atlas (http://www.trachomaatlas.org)					
INPUTS (£)	DFID (£)	Govt (£)	Other (£)	Total (£)	DFID SHARE (%)		
		Up to £10,621,044	0	0	£10,621,044	100%	
INPUTS (HR)	DFID (FTEs)						
	A2 Adviser (5%), B1 Programme (5%)						
OUTPUT 1	Output Indicator 1.1	Baseline	Milestone 1 (17th June 2013)	Milestone 2 (16 th May 2014)	Target (2015) ⁷³	Assumptions	
Baseline prevalence surveys completed	Number of districts for which baseline mapping completed	Planned	0	450	891	1238	Conflict / natural disasters do not prevent mapping in some areas Tools developed are not targeted by theft. Importation does not delay delivery of tools WASH/trachoma tools are found to be effective
		Achieved		616	1,059 ⁷⁴	1,494 ^{75/76}	
	Source						
	GTMP website						
	Output Indicator 1.2	Baseline	Milestone 1 (17th June 2013)	Milestone 2 (16 th May 2014)	Target (2015)		
New technology tools developed for trachoma and WASH ⁷⁷	Planned	0	Field testing carried out and tools finalised	Roll-out of tools	Tools used as norm in mapping programmes		
	Achieved		Trachoma and WASH tools developed and successfully rolled out	Trachoma and WASH tools successfully rolled out	Trachoma and WASH tools have been adopted by our partners RTI and FHI360 and have been used by		

⁷³ June 2015 (3 month lag from end of mapping to data fully uploaded onto Atlas)

⁷⁴ DFID funded, GTMP methodology: 760

DFID funded, non GTMP methodology: 24

Non DFID funded, GTMP methodology: 222

Non DFID funded, non GTMP methodology: 53

⁷⁵ DFID funded, GTMP methodology: 1,065

DFID funded, non GTMP methodology: 24

Non DFID funded, GTMP methodology: 352

Non DFID funded, non GTMP methodology: 53

⁷⁶ Please note that this is the gross figure of districts mapped. It does not take into account the number of districts that are being processed and are not yet uploaded to the Trachoma Atlas.

⁷⁷ Integrated NTD mapping tools will be used in some contexts and this will be reported on in supporting narratives

						23 MoH to date	
		Source					
		GTMP website					
IMPACT WEIGHTING (%)	Output Indicator 1.3		Baseline	Milestone 1 (17th June 2013)	Milestone 2 (16th May 2014)	Target (2015)	
60%	% districts mapped using new tools	Planned	0	>30%	>90%	>90%	
		Achieved		90%	93% ⁷⁸ This equates to an increase of 180 districts (+22%) being mapped by GTMP systems v target.	95% ⁷⁹	
			Source				RISK RATING
		GTMP website				Medium	
INPUTS (£)	DFID (£)		Govt (£)	Other (£)	Total (£)	DFID SHARE (%)	
	£6,559,524		0	0	£6,559,524	100%	
INPUTS (HR)	DFID (FTEs)						
OUTPUT 2	Output Indicator 2.1		Baseline	Milestone 1 (17th June 2013)	Milestone 2 (16th May 2014)	Target (2015)	Assumptions
Surveyors & analysts	Number of graders, recorders and epidemiologists	Planned	0	300	465	600	Required numbers of surveyors and analysts are available

⁷⁸ 982 districts were mapped between 17th December 2012 and 16th May 2014 using GTMP new tools. (New tools include the use of standardised survey methodology, certified graders, android smartphone technology and rigorous data cleaning), versus 77 districts which were mapped using non GTMP new tools. The Year 2 target was to map 802 districts using GTMP systems (target of 90% of the 891 total districts to be mapped). This results in an increase of 180 districts (22%) mapped compared to the Year 2 target. It is also noteworthy that in Year 2, 100% of DFID funded surveys were mapped using GTMP new tools.

⁷⁹ 1,417 districts were mapped between 17th December 2012 and 15th May 2015 using GTMP new tools. (New tools include the use of standardised survey methodology, certified graders, android smartphone technology and rigorous data cleaning), versus 77 districts which were mapped using non GTMP new tools. Thus, 95% of all baseline surveys conducted between 17th December 2012 and 15th May 2015 were conducted using GTMP new tools. In Year 3, 100% of districts funded by DFID were mapped using GTMP new tools (435 districts). We are not aware of any districts mapped in year 3 which did not use GTMP new tools.

trained.	certified for survey collection	Achieved		308	684 ⁸⁰	1,221 ⁸¹	
IMPACT WEIGHTING (%)		Source					RISK RATING
20%		ITI monitoring reports					Low
INPUTS (£)	DFID (£)		Govt (£)	Other (£)	Total (£)	DFID SHARE (%)	
	£2,060,381		0	0	£2,060,381	100%	
INPUTS (HR)	DFID (FTEs)						
OUTPUT 3	Output Indicator 3.1		Baseline	Milestone 1 (17th June 2013)	Milestone 2 (16th May 2014)	Target (2015)	Assumptions
Effective programme management	Number of Advisory Committee members in attendance at Programme Advisory Committee meetings	Planned	0	8	8	8	Advisory Committee effectively ensures buy-in of all trachoma partners across the community to ensure collaboration in each NGO's areas of work
		Achieved		9 members + 25 representatives from other interested parties	11 members + 27 representatives from other interested parties	9 members + 24 representatives from interested parties	
	Source						
	Programme Advisory Committee minutes						
	Output Indicator 3.2		Baseline	Milestone 1 (17th June 2013)	Milestone 2 (16th May 2014)	Target (2015)	
Number of implementing agencies actively		Planned	0	6	12	6	
		Achieved		8	17 ⁸²	11 ⁸³	

⁸⁰ Please note the cumulative figure includes only those trainees who go on to map for the GTMP. A greater number of graders and recorders are certified but not all go on to map for GTMP because of logistical and methodological reasons including: the number of teams required, size of region to be mapped, availability of supervisors etc. There are also a significant number of graders and recorders who attend the training but do not achieve certification

⁸¹ In Year 3 there were an additional 416 trainees mapping in the field (208 teams of 1 grader + 1 recorder) + 79 additional people trained in Y1 and Y2 in Mozambique missing from the previous reports plus 42 supervisors

⁸² AMREF, BICO, The Carter Center, Fred Hollows Foundation, FHI 360, Helen Keller International, International Trachoma Initiative (The Task Force for Global Health), Johns Hopkins University, Light for the World (Austria), Light for the World (Netherlands), London School of Hygiene and Tropical Medicine, MitoSath, ORBIS, Organisation for the Prevention of Blindness (OPC), RTI, Sightsavers and the World Health Organisation

⁸³ BICO, The Carter Center, Fred Hollows Foundation, FHI 360, International Trachoma Initiative (The Task Force for Global Health), Light for the World (Austria), Mission to Save The Helpless, Organisation for the Prevention of Blindness (OPC), RTI, Sightsavers and the World Health Organisation

	mapping trachoma	Source					
		Sightsavers monitoring reports					
	Output Indicator 3.3		Baseline	Milestone 1 (17th June 2013)	Milestone 2 (16th May 2014)	Target (2015)	
	M&E structures in place	Planned	0	Data upload structure in place	All GTMP surveys processed using the automated approval process Mid-term review	Map complete and reports satisfactorily approved by DFID Final evaluation	
		Achieved		Data upload structure in place	All GTMP surveys were processed using the automated approval process Mid-term review finalised May 2014	All GTMP surveys were processed using the automated approval process GTMP extended until end 2015, with Final Evaluation to be carried out in Autumn 2015	
		Source					
		Sightsavers and ITI monitoring and evaluation reports					
IMPACT WEIGHTING (%)	Output Indicator 3.4		Baseline	Milestone 1 (17th June 2013)	Milestone 2 (16th May 2014)	Target (2015)	Assumptions
20%	Number of GTMP media hits	Planned	0	-	64, including 26 in national/international media and 2 in collaboration with	97, including 38 in national/international	Media is receptive to reporting on the project

					USAID	media and 3 in collaboration with USAID	
		Achieved		33, including 12 in national/international media and 1 in collaboration with USAID	>68 including 47 in national/international media and 9 in collaboration with USAID	118 including 47 in national/international media and 9 in collaboration with USAID	
	Source						Risk Rating
	Online and print records						Low
INPUTS (£)	DFID (£)		Govt (£)	Other (£)	Total (£)	DFID share	
	£2001,139				£2,001,139	100%	
INPUTS (HR)	DFID (FTEs)						

GTMP Achievements:

DFID (Department for International Development) funded GTMP baseline mapping began on December 17th 2012 in Oromia, Ethiopia and final DFID funded GTMP baseline mapping ended on 11th January 2016 in Afar, Ethiopia. (Work was not continuous in Ethiopia, some projects in Ethiopia were put on hold because of security concerns and inaccessibility – e.g. collapsed bridge)

Within the GTMP mapping timeframe the following results were achieved:

- **2.6 million** people examined with WHO standardised GTMP methodologies in **29** countries (representing a population of 224 million)
 - Benin, Cambodia, Chad, Colombia, Cote d' Ivoire, DRC, Egypt, Eritrea, Ethiopia, Fiji, Guinea, Kiribati, Laos, Malawi, Mexico, Mozambique, Pakistan, PNG, Nigeria, Rep of Congo, Senegal, Solomon Islands, Sudan, Tanzania, Uganda, Vanuatu, Zambia, Zimbabwe and Yemen

- The total number of health districts mapped during the timeframe of the Global Trachoma Mapping Project was 1,627. 95% (1,546) of these districts were mapped with GTMP standardised methodologies.
- We estimate over 2,500 people worldwide have worked on GTMP (1,386 people trained, 611 survey teams deployed to the field)
- GTMP was delivered in collaboration with over 60 partners, including DFID and USAID, 30 MoHs, academic bodies and not for profit organisations that were involved in either stewarding, supporting, managing or implementing the project

GTMP Training Analysis

CUMULATIVE TOTALS FOR ANNUAL REPORTS				
REPORT YEAR	TRAINEES MAPPING	SUPERVISORS	MOZAMBIQUE	CUMULATIVE TOTAL
YEAR 1	272	36	0	308
YEAR 2	325	51	0	684
YEAR 3	416	42	79	1,221
YEAR 4	142	23	0	1,386

Number of mapping teams	
REPORT YEAR	MAPPING TEAMS
YEAR 1	142
(YEAR 2-Exc Mozambique trainings)	156
YEAR 2-Inc Mozambique trainings	193
YEAR 3	208
YEAR 4	68
TOTALS	611

Appendix 8

List of Implementing Partners

Implementing Agencies	Countries
African Medical and Research Foundation (AMREF)	Ethiopia (Afar)
Blantyre Institute for Community Ophthalmology	Malawi
The Carter Centre	Nigeria
Fred Hollows Foundation	Solomon Islands, Eritrea, Ethiopia (Oromia), Pakistan, Papua New Guinea, Vanuatu
FHI 360	Laos, Cambodia
Helen Keller International (HKI)	Nigeria (Katsina)
International Trachoma Initiative (The Task Force for Global Health)	Ethiopia (Oromia)
Johns Hopkins University	Ethiopia (Gambella and Benishangul Gumuz)
Light For The World – Austria	Ethiopia (Somali and Tigray); Mozambique
Light For The World – Netherlands	South Sudan
London School of Hygiene and Tropical Medicine (LSHTM)	Solomon Islands
Mission To Save The Helpless	Nigeria (Bauchi, Gombe, Niger and Taraba)
Organisation for the Prevention of Blindness (OPC)	Chad
ORBIS	Ethiopia (SNNPR)
Research Triangle Institute	Benin, Guinea, Senegal, Tanzania, Uganda
Sightsavers	Mozambique (Nampula); Nigeria (Kaduna); Sudan, Ivory Coast, Mozambique (Nampula); Nigeria (Benue, Kaduna, Kebbi, Sokoto); Sudan, Tanzania, Zambia, Zimbabwe
World Health Organisation	Yemen

Appendix 9

MTR recommendations, management response and action plan

SIGHTSAVERS MANAGEMENT RESPONSE TO GTMP MID-TERM EVALUATION

Evaluation Recommendations (A)	Accepted/ Rejected (B)	Priority	Management Response		
		High/ Medium/ Low (C)	Action Plan (D)	Responsibility (E)	Timeline (F)
1	Accept	High	<p>Sightsavers accepts that proposed project management tool will improve project tracking and forward planning and has already moved forward with a number of initiatives. GTMP has introduced the following:</p> <ul style="list-style-type: none"> • Forecasting model has been created (date April 2014) and further iterations were established in summer 2014. • A mapping country project plan has been developed (last revised October 2014) • Global Trachoma Donor Report, hosted by ITI, has been thoroughly tested over summer 	GTMP Operations Director	On-going

Evaluation Recommendations (A)		Accepted/ Rejected (B)	Priority	Management Response		
			High/ Medium/ Low (C)			
				Action Plan (D)	Responsibility (E)	Timeline (F)
				2014 <ul style="list-style-type: none"> • Project Summary Reports circulated on monthly basis to Sightsavers and Trustees • GTMP Training Requirements Form is in place and used regularly All tools are available to GTMP core team members on the Google Drive.		
2	The GTMP Operations Director, who was hired less than six months ago, should be supported to travel to ITI to meet with the team in Atlanta as part of a final year planning effort	Accept	Medium	Continuous project planning is necessary under GTMP, particularly in the final year given that the project has already met its original mapping targets. A specific planning meeting was scheduled with core team but unfortunately this meeting was put on hold due to a medical emergency. This meeting is now scheduled for November 2014. GTMP Operations Director attended Advisory Committee meeting in Atlanta in July 2014.	GTMP Operations Director	November 2014
3	Maintain close communications via a weekly call as is currently done, supported by improved project tracking tools	Accept	Low	GTMP accepts that open channels of communication can influence smooth project delivery. Detailed agendas are now circulated ahead of weekly	GTMP Operations Director	Ongoing

Evaluation Recommendations (A)	Accepted/ Rejected (B)	Priority High/ Medium/ Low (C)	Management Response			
			Action Plan (D)	Responsibility (E)	Timeline (F)	
4	Provide additional support to the GTMP Data Manager to resolve issues, which attenuate the process from survey completion to final release of data. Determine whether additional staff support will be needed to handle the workload of simultaneous mapping across multiple countries	Partially Accept	Medium	meetings which are now also supported by minutes. GTMP has contracted a full time epidemiologist to work as a data manager in various countries where GTMP mapping has occurred. He helps the ministries of health (MoHs) National Trachoma Coordinators and Data Managers to access and analyse data from GTMP mapping for the purposes of publication. He has also applied his skills to specific data management issues e.g. the uploading of data to the database from phones in Sudan. GTMP Operations Director also has a weekly call with the GTMP Data Manager to discuss workload and countries with delivery challenges.	GTMP Operations Director	Ongoing
5	Ensure that future mapping continues to be supported very closely by dedicated project epidemiologists	Accept	Medium	GTMP accepts the importance of technical support to the project. Nigeria and Ethiopia have had dedicated resource and GTMP has contracted a full time epidemiologist to assist with other countries. In countries with limited MoH capacity, GTMP has provided funds to support	GTMP Operations Director	Ongoing

Evaluation Recommendations (A)	Accepted/ Rejected (B)	Priority High/ Medium/ Low (C)	Management Response			
			Action Plan (D)	Responsibility (E)	Timeline (F)	
6	Consider extending training time for recorders, especially where baseline educational qualifications are weaker than they have been in some regions and countries	Accept	High	the project by hiring technical specialists on a case by case basis e.g. Mozambique, Chad GTMP has introduced a GTMP exam which we ask recorders to sit and pass (Summer 2014). We will be giving more consideration to this during our November 2014 planning meeting.	GTMP Operations Director	Ongoing
7	Continue to closely analyse patterns of household absenteeism and analyse follow-up of absentees for trachoma grading and survey completion	Accept	Medium	During the data processing and cleaning activities performed by GTMP, issues around absenteeism are identified. The data manager works on a case by case basis in each project to address any issues as they arise with operatives in the field. As part of the end of project evaluation we hope to learn lessons from patterns of household absenteeism which can be applied to other disease mapping projects.	Data manager (ITI)	Ongoing
8	Continue active solution-orientated discussion within GTMP consortium and Advisory Committee regarding the challenge of trichiasis surgery during GTMP surveys. Estimate	Partially accepted	Medium	At the start of the project, we agreed that trichiasis surgery was out of scope for GTMP. However, as a project we understand and recognise the importance of surgery being completed against the outputs from	GTMP Operations Director	Ongoing

Evaluation Recommendations (A)	Accepted/ Rejected (B)	Priority	Management Response		
		High/ Medium/ Low (C)	Action Plan (D)	Responsibility (E)	Timeline (F)
probable costs for provision of surgery during GTMP surveys. Advocate strongly for and seek funding for trichiasis surgery provision. Encourage implementing NGOs to seek or supply funding for trichiasis surgery.			<p>GTMP. As such, we have consulted twice with the Advisory Committee.</p> <p>We are working with our partners to support each country program in putting in place a specific plan for TT cases as a joint activity with MoH and participating NGOs. Laos, Cambodia, Zimbabwe, Eritrea, and Egypt have plans and donor commitments.</p> <p>Two new questions have been added to the survey to capture which TT cases are known to the system, since some had previously been offered surgery. This is facilitated by a skip algorithm in the smart phone tool. The proportion of cases already known to the health system is important for the elimination dossier.</p> <p>GTMP has noted that TT cases in Ethiopia should be addressed. The GTMP started in Ethiopia and is now almost complete, but there are many areas without plans for TT surgery.</p> <p>GTMP also asked the ICTC to</p>		

Evaluation Recommendations (A)	Accepted/ Rejected (B)	Priority	Management Response			
		High/ Medium/ Low (C)	Action Plan (D)	Responsibility (E)	Timeline (F)	
9	Immediately address challenges of post-survey support in two areas: (1) review and finalise content of post-survey report; (2) provide capacity building support to Ministries of Health to improve their ability to access, share, and utilize GTMP data for trachoma action planning. Special attention should be given to possible mechanisms (e.g. Memorandum of Understanding with MoH) for engaging	Partially accepted	Medium	<p>consider TT surgery cost analysis the ICTC in April 2014. The TT surgery group took an action to analyse the volume of TT surgery required and to cost it appropriately.</p> <p>A system has been set up whereas the GTMP Data Manager works closely with elected members of the MoH to address and manage points (1) and (2).</p> <p>Professor Paul Courtright, also works on behalf of KCCO to support MoH data interpretation and to provide technical expertise and structuring of Trachoma Action Plans (post GTMP data sign off).</p>	GTMP Operations Director	Ongoing
10	Add the following outcome indicators (number of TAPs using GTMP data, Zithromax orders using GTMP data) and begin systematic data collection for use in the final evaluation of GTMP	Not accepted	Low	GTMP discussed the inclusion of this indicator with DFID and we agreed not to include it since	GTMP Operations Director	Complete

Evaluation Recommendations (A)		Accepted/ Rejected (B)	Priority	Management Response		
			High/ Medium/ Low (C)	Action Plan (D)	Responsibility (E)	Timeline (F)
11	Seek expert input from Advisory Committee for potential use of WASH data for F&E intervention and implications for SAFE more generally	Accept	Medium	At the Advisory Group meeting in July 2014 GTMP decided to launch call for proposals /commission a research group that can overlay WASH and trachoma data. There is potential to start this work in Ethiopia. Other ideas were also discussed. A data management panel has been established and an invitation to tender has been sent to the trachoma and WASH communities to manage their applications for GTMP data based research.	Chief Scientist	March 2015
12	Return attention to press releases and publications in the final six months of GTMP as mechanisms for building momentum for trachoma action planning, SAFE implementation and fundraising			As the largest infectious disease survey ever attempted, GTMP is Sightsavers greatest innovation and Sightsavers clearly understands its responsibility for sharing the results and learning from this project. GTMP will continue to deliver on its media obligations and will engage Sightsavers Communications Team to develop a 6 months plan, which will include a short-film. In July 2014, GTMP publicised the project's second anniversary - celebrating its initial scope of work	Institutional Funding Manager / Media Manager	November 2014

Evaluation Recommendations (A)		Accepted/ Rejected (B)	Priority	Management Response		
			High/ Medium/ Low (C)	Action Plan (D)	Responsibility (E)	Timeline (F)
				has nearly been completed, with 94 per cent of the identified districts surveyed nine months ahead of schedule and under budget.		
13	Formally and thoroughly explore and record lessons learned from the GTMP's efforts at integrated NTD mapping for future mapping and as well as integrated NTD implementation efforts	Partially accept		This will be conducted as part of the end of project evaluation.		
Additional Actions (G):						

Appendix 10

Risk Management Strategy

Output risk rating

No significant change in the actual risks, however as the programme matures, the risk level is lower. Overall our risk rating has been reduced from medium to **LOW**.

Risk as outlined in the DFID business case	Impact (current assessment)	Likelihood (current assessment)	Minimisation/mitigation of negative impacts as outlined in the DFID business case	Updated assessment/comments
1. Difficulty in managing different interests and making decisions across the consortium	H	L	A clear management structure has been designed which delineates grant management, programme management and mapping implementation responsibilities across the consortium. There is one clear lead for overall technical programme coordination which sits within the World Health Organisation. Leadership is directed by a steering committee comprised of the major stakeholders including DFID. The steering committee will ascertain specific working groups that are needed during its first meeting.	There are clear management and governance structures in place on the project, including a Project Advisory Committee. To date this risk has been mitigated successfully with the effective operation of the Advisory Committee. The Advisory Committee met twice during the reporting year.
2. Failure to meet schedule for rapid scale-up	M	L	Use of epidemiology trainees and graduates where possible through the Field Epidemiology and Laboratory Training Programmes (FELTP); collaboration with all	During this year GTMP has continued to build the team's capacity to deliver scale-up, with the GTMP team increased in size both in terms of headcount and partner

			trachoma partners through close coordination guided by the Steering Committee; prioritization of districts based on existing plan.	organisations). We will continue to monitor our ability to perform at scale during the remainder of 2015.
3. Diversion of resources from existing trachoma programmes / other health or development initiatives	M	L	Any funds or human resources that may be reprogrammed from mapping to other activities would likely be done so at the benefit of increasing scale-up of implementation. <i>[Risk taken to mean 'diversion of resources from other development/health initiatives to Trachoma Mapping]</i>	The speed of mapping activity in the project has meant that in many cases staff are not diverted for more than a few weeks. We continue to clearly communicate the benefits of mapping and encourage countries to take leadership through delivering a phased approach to mapping (suspected highly endemic areas mapped first).
4. Difficulty in aligning approaches across all actors in a multi-actor environment	M	L	Working to ensure buy-in of all trachoma partners across the community to ensure collaboration in each NGO's areas of work. The Advisory Committee will work collaboratively with WHO and all major stakeholders to standardize and harmonize procedures and develop training methods	This has continued to be an area of strength for the project. GTMP tools and methodologies are being used on USAID funded trachoma mapping activities. Technology for mapping useful for other neglected tropical diseases (now being used by AFRO mapping initiative)
5. Barriers to mapping some districts in post-conflict or conflict countries	H	M	The NGOs included as implementing agencies in this proposal have expertise of working in many of the post-conflict and conflict countries that require mapping (e.g., South Sudan, Pakistan, Afghanistan etc.). In addition to this expertise, innovative partnerships will be	The key mitigation measure is working with agencies that have local experience and expertise of operating in conflict/post conflict countries. Security planning and responses are built into programme plans and training. Security situations are monitored and

			developed where additional needs arise.	assessed and we only proceed on the basis of the implementing agencies and our own security manager's recommendations. GTMP is currently not working in a number of countries and regions/provinces because they are considered to be too insecure.
6. Finishing mapping means trachoma community needs to be prepared to support implementation in endemic areas	H	M	Pfizer has assured its commitment to provide the Zithromax needed to achieve global elimination of blinding trachoma by 2020; lack of implementation funding will continue to be a challenge	Countries currently mapping and/or about to map will need support for implementation of the SAFE strategy, where indicated, as soon as possible. Sightsavers is active in galvanising support for trachoma elimination, and in June 2014 secured funding from DFID for trachoma elimination in Chad, Ethiopia, Tanzania and Zambia (South Sudan and Central African Republic are currently on hold)
7. Duplication of efforts, increased administration, missed opportunities for learning with other NTD mapping programmes	M	L	Risks to an integrated approach are relatively low as there is increasing experience of integrated programmes in the sector, but it will add complexity in some areas, hence the development of over-arching mapping plans per country. Planning for interventions amongst the different NTD grants should be harmonised where possible.	Co-ordinated activities have taken place in <ul style="list-style-type: none"> • Solomon Islands (Yaws mapping) • Gambella, Ethiopia, Sudan (Guinea worm active surveillance) • Nigeria (Schistosomiasis/STH and LF mapping).

Are there any new risks to the project?

Additional risks identified post business case (relating to the project now and/or at a future date)

Risk	Impact	Likelihood	Minimisation/mitigation of negative impacts
8. Difficulty in gaining government approval (regional and national) to release the data for each country. The data cannot be published on the Trachoma Atlas until ethical approval has been obtained.	M	L	<p>Key GTMP representatives in-country (from INGO consortium members) use their strong relationships with the relevant MoH officials.</p> <p>Dr. Colin Macleod worked closely with the MoH in Ethiopia to help them to manage and release data for two purposes: 1) application for Zithromax and 2) journal publication. Similar support is also being provided to other countries where required on a case by case basis by GTMP epidemiologists. For instance GTMP are supporting Eritrea to publish the findings from their surveys.</p>
9. Loss of key staff.	H	L	<p>The project team works closely and our comprehensive documentation is shared. Agreements relating to areas of expertise are with organisations not individuals. The additional mitigation strategy implemented in year two (with the recruitment of the GTMP Operations Director, and Dr Paul Courtright) is still in place and no additional measures are deemed necessary. During year three, GTMP is helping to ensure the continuation of key staff until project end.</p>
10. Poor quality of	H	L	<p>Standardised training and mapping methodologies and tools have been</p>

mapping data.			developed and are used on the project. The training course includes a fieldwork aspect and experience has shown that those that qualify as graders deliver mapping of high quality. We designed the survey application to reject the entry of erroneous data. The data is 'cleaned' before being signed off and any corrections/follow up needed are addressed.
11. Mobile phones needed for mapping are held up in customs/not available to meet GTMP schedules.	M	L	<p>Use of the survey application means that if necessary, in-country phones can be sourced and the survey remotely loaded onto these. Procurement planning allows for realistic lead times to be built into phone orders.</p> <p>In year two and three the project has been active in more countries, some of which posed challenges in terms of importing phones and the magnifying loupes that are also used to examine eyes.</p> <p>Whilst we experienced some delays in phone delivery in year 2, we worked closely with our shipping agents to resolve these and it has not resulted in project delays.</p>
12. The need for pre-funding of mapping by GTMP partners may be a barrier to the participation of some partners (such as small in-country NGO partners). This could impede the	M	L	<p>Effective cash-flow forecasting and monitoring processes within Sightsavers is helping to manage this risk since it continues to be a problem for some partners.</p> <p>Sightsavers reviews prefunding issues on a case by case basis as these arise and identifies an appropriate solution in each case, taking account of the risk involved and potential impact on the project. To date this has included:</p> <ul style="list-style-type: none"> • Partial or total advance funding of the partner concerned by Sightsavers • Requesting support from DFID in a situation where the risk profile supported this.

implementation of mapping plans.			Pre-funding provided to partners by Sightsavers to enable mapping comes to a total of £814,000 ⁸⁴ between the project start and May 2015. This includes pre-funding to BICO, Al Noor, CBM and MITOSATH.
13. Trachoma atlas incomplete by March 2015. As new countries submit proposals for mapping the need increases beyond the originally planned 1,238 districts	H	L	A phased approach to mapping has been adopted with suspected highly endemic districts mapped first. We continued to monitor actual spend against projected costs of GTMP closely and agreed a no cost extension to 31 December with DFID to allow for the increased district target.
14. Insufficient GTMP human resources during scale up	M	L	GTMP conducted a thorough review of core team responsibilities aligned to financial processing and put in place plans to place to strengthen teams accordingly. No additional core resource need is requirement is anticipated at present.

⁸⁴ In Year 1 and Year 2 Sightsavers pre-funded GTMP DFID projects by £622,000. In Year 3, Sightsavers pre-funded DFID funded GTMP projects by £60,000. In Year 3, Sightsavers pre-funded USAID funded GTMP projects by £132,000. The total amount of prefunding that Sightsavers has provided to GTMP projects is £814,000 between December 2012 and May 2015.