STRATEGIC PLAN FOR CROSS-BORDER ACTIVITIES
FOR NEGLECTED TROPICAL DISEASES CONTROL
AND ELIMINATION IN UGANDA: 2019-2023

Version 2.0

NOVEMBER 2018

envisio
a world free of NTDs
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**ABBREVIATIONS AND ACRONYMS**

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<th>Description</th>
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<tbody>
<tr>
<td>APOC</td>
<td>African Programme for Onchocerciasis Control</td>
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<td>BUD</td>
<td>Buruli Ulcer Disease</td>
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<td>CBC</td>
<td>Cross Border Committee</td>
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<td>CMB</td>
<td>Chistofell Blinden Mission</td>
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<td>CM-NTDs</td>
<td>Case Management - Neglected Tropical Diseases</td>
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<td>CO</td>
<td>Corneal Opacity</td>
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<td>CRRF</td>
<td>Comprehensive Refugee Response Framework</td>
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<td>DRC</td>
<td>Democratic Republic of Congo</td>
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<td>ESPEN</td>
<td>Expanded Special Project to Eliminate Neglected Tropical Diseases</td>
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<tr>
<td>FMOH, RSS</td>
<td>Federal Ministry of Health, Republic of South Sudan</td>
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<td>GTZ</td>
<td>German Technical Cooperation</td>
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<td>HAT</td>
<td>Human African Trypanosomiasis</td>
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<td>IEC</td>
<td>Information, Education, Communication</td>
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<td>ITI</td>
<td>International Trachoma Initiative</td>
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<td>KMOH</td>
<td>Kenya Ministry of Health</td>
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<tr>
<td>LF</td>
<td>Lymphatic Filariasis</td>
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<td>LLINs</td>
<td>Long Lasting Insecticide Treated Nets</td>
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<tr>
<td>M &amp; E</td>
<td>Monitoring and Evaluation</td>
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<tr>
<td>MFA</td>
<td>Ministry of Foreign Affairs</td>
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<td>MOD</td>
<td>Ministry of Defense</td>
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<td>MOH</td>
<td>Ministry of Health</td>
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<tr>
<td>MoU</td>
<td>Memorandum of Understanding</td>
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<td>NGDO</td>
<td>Non-Governmental Developmental Organization</td>
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<td>National Onchocerciasis Control Programme</td>
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<td>Neglected Tropical Diseases</td>
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<td>OPM</td>
<td>Office of the Prime Minister</td>
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<td>PC-NTDs</td>
<td>Preventive Chemotherapy - Neglected Tropical Diseases</td>
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<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>PTS</td>
<td>Post Treatment Surveillance</td>
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<td>RTI</td>
<td>Research Triangle International</td>
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<td>SAFE</td>
<td>Surgery, Antibiotic, Facial washing, Environmental Improvements</td>
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<td>SS</td>
<td>Sightsavers</td>
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<td>STH</td>
<td>Soil Transmitted Helminthes</td>
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<td>TAS</td>
<td>Transmission Assessment Survey</td>
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<td>TCC</td>
<td>The Carter Center</td>
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<td>TF</td>
<td>Trachomatous Follicular</td>
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<td>TFGH</td>
<td>Task Force for Global Health</td>
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<td>TT</td>
<td>Trachomatous Trichiasis</td>
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<td>TV</td>
<td>Television</td>
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<td>UNHCR</td>
<td>United Nation High Commission for Refugees</td>
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<tr>
<td>UNICEF</td>
<td>United Nations International Children’s Education Fund</td>
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<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>World Health Organization</td>
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Dr. Edridah Muheki Tukahebwa,
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For

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Neglected tropical diseases (NTDs) are a diverse group of communicable diseases that prevail in tropical and subtropical conditions. More than one billion people suffer from one or more of these diseases (NTDs) worldwide. Sub-Saharan Africa region bears about half of this global burden. This region is also not unique when it comes to NTD transmission across international borders. Cross-border collaboration and coordination of NTDs control/or elimination has been a topic of discussion at WHO level since 2009. Regional approach to cross-border collaboration was initiated by a number of countries including Uganda, but the coordination and implementation at regional level have remained weak.

Since 2009 cross-border NTD activities have been organized on individual national program basis, and it has been up to each national program to plan, implement and monitor cross-border activities. Diseases including NTDs do not respect boundaries. Population movements across borders have significantly increased due to civil strife, trade linkages and other business opportunities in the East African region and Africa in general. Therefore, cross border transmission of NTDs is possible considering that most countries surrounding Uganda are endemic of one or more NTDs. There is therefore need for deliberate efforts to strategically plan for cross border interventions that can help in creating a coordinated response to address NTDs across borders.

There are various components of the NTD control and elimination program that need to be addressed with a regional perspective to ensure achievement of the national program goals. Strengthening collaboration and coordination for MDA activities, building capacity for cross-border activities, establishment of functional cross-border mechanism to implement NTD interventions and strengthening M &E for cross border activities are some of the interventions that can help address cross-border transmission of NTDs. There is evidence to suggest that interruption of transmission of a number of NTDs have been achieved in some countries in the Africa region and such achievements need to be safe guarded. In the East African region, Uganda has made great strides towards the elimination of some of the NTDs namely: guinea worm, onchocerciasis, LF and trachoma. This achievements can easily be compromised by transmission from neighboring countries if there are no measures put in place to prevent cross border transmission.

In view of the above and as part of the Ministry of Health NTD program mandate, this Cross Border NTD Strategic Plan has been developed to provide guidance on policy as well as planning and implementation of cross border activities as part of the broader efforts to control and eliminate NTDs in Uganda and indeed in neighboring countries. This strategy will provide policy guidance for Uganda and where applicable neighboring countries to mitigate the impact of cross border NTDs transmission. It is the commitment of the government of Uganda that by 2020, we shall have achieved NTD control and elimination goals as stipulated in the WHO/NTD policy framework. I encourage all partners involved and NTD program managers of neighboring countries to take advantage of this Strategic plan so as to have successful NTDs control and elimination program in the region.

Dr. Henry Mwebesa
Ag. DIRECTOR GENERAL HEALTH SERVICES
Executive Summary

More than one billion people suffer from one or more neglected tropical diseases (NTDs) worldwide and the African Region bears about half of this global burden. Forty seven countries in the African Region are endemic for at least one NTD and 37 of them (79%) are co-endemic for at least five of these diseases. The total population globally at risk of NTDs amenable to preventive chemotherapy (PC) ranges from about 123 million for onchocerciasis to about 470 million for lymphatic filariasis.

Uganda has made remarkable progress in interrupting the transmission of some NTDs (LF, oncho, trachoma) through preventive chemotherapy supplemented by other interventions (vector control). In some countries in Africa region, interventions to reduce the burden of LF, onchocerciasis and trachoma have resulted in interruption of transmission of these diseases in endemic communities. So far Togo, Morocco and Ghana in the Africa region have achieved the elimination of LF and Trachoma respectively. In addition, the capacities of national NTD programs have been strengthened. It is worthy to note that 36 countries in the African Region have developed integrated national multi-year plans (also called NTD Master Plans) that provide a sound foundation for improved program performance and effectiveness.

The momentum to eliminate NTDs in the African Region is growing. However, the threat of cross-border transmission may compromise the achievements already made. Most of the countries where elimination of NTDs have been achieved share common borders with countries where there is still ongoing transmission of NTDs. Besides, coupled with weak disease surveillance network, detection of recrudescence may be a problem. Uganda equally faces the same challenges having interrupted transmission of LF, onchocerciasis and trachoma in many districts. Countries neighboring Uganda with potential threats of cross-border transmission of NTDs include Kenya, South Sudan and Democratic Republic of Congo (DRC). Cross-border collaboration has been initiated with DRC and Kenya. This collaboration is not based on any strategic plan that can allow countries assess progress and report on achievements in a more coordinated manner. This plan therefore attempts to provide strategic guidance on the planning, implementation and evaluation of cross border interventions.

The Strategic Plan for Cross-border activities – 2019-2023- is premised on 6 broad areas:

- Strengthening of bilateral and multilateral cooperation for NTD control and elimination;
- Promotion of cross-border collaboration and coordination for improved NTD control/elimination;
- Building and strengthening capacity to support NTD implementation across the borders;
- Harmonizing NTD treatment schedules, surveys and impact assessment activities;
- Scaling up interventions among the refugee populations where applicable;
- Developing M & E frameworks to guide cross border case monitoring and reporting.
For each objective, the plan defines and/or proposes strategies, activities to be carried out by the program, outputs, indicators and means of verification. The activities identified constitute the backbone of the Strategic Plan. The Uganda NTD program will take lead in the planning and coordination of all these activities with support from partners as indicated in the proposed coordination organogram. Commitment and strong leadership at all levels will be critical for the success of this plan.
Introduction

Neglected Tropical Diseases (NTDs) are a group of chronic and debilitating conditions, caused by parasitic, bacterial, and viral infections that occur almost exclusively in poor populations in developing countries, putting at risk an estimated 2.7 billion globally (Hotez, et. al., 2007; WHO, 2012). “Sub-Saharan Africa bears the biggest burden of many of these NTDs, and the numbers of people afflicted by each of these diseases are simply striking” (Hotez & Kamath, 2009), representing up to over 90% of the world’s burden for some of these diseases. The NTDs of the highest public health importance are categorized into two: those amenable to preventive chemotherapy or PC NTDs and those that are controlled through case management or CM-NTDs. The PC-NTDs prevalent in most countries in sub-Saharan Africa including Uganda, Kenya, Tanzania, South Sudan, Rwanda and Democratic Republic of Congo are: Lymphatic filariasis (due to filarial worms), Schistosomiasis (bilharzia), Soil-transmitted Helminthes (STH), Onchocerciasis (River blindness) and Trachoma. The CM-NTDs are: Human African Trypanosomiasis (HAT) commonly called Sleeping sickness, Leishmaniasis (Kala-azar), Plague, Buruli Ulcer Disease (BUD), Rabies, Snake bites, Podoconiosis (non-filarial elephantiasis), Tungiasis (Jiggers) and Guinea worm. At least 47 countries in the African Region are endemic for one or more NTDs and 37 of them (79%) are co-endemic for at least five of these diseases. The total population at risk of PC NTDs ranges from about 123 million for onchocerciasis to about 470 million for lymphatic filariasis (WHO, 2016). NTDs cause chronic ill-health and disability and contribute to reduced productivity and hence affect the socio-economic development of countries where they occur (Conteh, et. al, 2010). It is possible to prevent, control and/or eliminate NTDs using effective interventions. The current control strategy for PC-NTDs is mass drug administration (MDA) using cheap and effective drugs in combination with other interventions in a coordinated approach following guidelines on preventive chemotherapy by WHO (2006).

Control of PC NTDs has gained momentum in recent years. The burden of these diseases on over 2 billion people in the poorest populations and the importance of controlling these NTDs for a wide range of benefits are recognized by the international community (Molyneux, 2010). This has been supported by the development of NTD Master plans by member countries in the African region backed by commitments by Ministers of Health in the region, World Health assembly resolutions on NTDs (AFR/RC57/R3) and the London Declaration of 2012 (WHO, 2009,2013). Significant progress has been made in delivering interventions to control NTDs and strengthening capacity of national programs in the Africa region. There are indications that interruption of transmission of a number of NTDs have been achieved in the African region and such achievements need to be safe guarded. In the East African region, Uganda is one of the countries that has made great strides towards the elimination of some of the NTDs (onchocerciasis, Lymphatic filariasis, trachoma).

These achievements can easily be compromised by cross-border transmission from neighboring countries of Kenya, south Sudan, Tanzania, Rwanda and DRC. This Cross Border Strategic Plan is an attempt to provide guidance to countries sharing common borders with Uganda to improve
coordination and collaboration in planning and implementation of interventions that will help in the control, elimination and sustenance of achievements so far recorded in the region.

**Situation analysis**

Uganda has a high burden of Neglected Tropical Diseases (NTDs). These mainly affect rural poor communities with limited access to healthcare. NTDs lead to chronic ill health which in turn leads to reduced productivity and affects the socio-economic development of the affected individuals, communities and the country at large. The NTDs of high public health importance in Uganda are in 2 categories: those that can be controlled/ eliminated by preventive chemotherapy (PC NTDs) and those controlled by individual case management (CM NTDs). The PC-NTDs include: Lymphatic Filariasis (LF), Schistosomiasis (Bilharzia), Trachoma, Onchocerciasis (River Blindness) and soil transmitted helminthes (STH). These are targeted for control or elimination. The CM-NTDs include:

- Human African Trypanosomiasis (HAT)
- Leishmaniasis (Kala-azar)
- Buruli Ulcer Disease (BUD)
- Podoconiosis (non- Filarial Elephantiasis)
- Snake Bite Envenomation
- Rabies
- Tungiasis (Jiggers)
- Cysticercosis (*Teatnea solium*)
- Guinea worm (Dracunculiasis)
- Plague

The distribution of these diseases is determined by the existence of risk factors in the districts where they are found. In general, a disease like STH is found in all the districts while other NTDs may be found in some districts but not in others. For example, trachoma is mainly found in districts of Busoga, Karamoja, Lango, Acholi, West Nile and Bunyoro regions. LF is mainly endemic in nearly the same regions except Bunyoro. Onchocerciasis is a focal disease in terms of geographical distribution and is endemic in areas where there are fast flowing rivers in both forested and savannah ecological zones. Schistosomiasis is more prevalent in communities that live near big water bodies where occupational activities are mainly fishing and rice growing; and these activities expose the residents to the risk of schistosomiasis infection. HAT is a disease mainly endemic in the eastern and northern parts of the country especially along cattle corridors where vector tsetse flies (*Glossina spp*) are found. The remaining NTDs (rabies, jiggers, snake bites) may not follow any specific geographical or ecological pattern in distribution. They are found in many parts of the country but sometimes with tendencies to be more common where hygiene conditions are poor.
**Control/ Elimination measures**

It is possible to prevent, control and eliminate some of the NTDs if effective interventions are identified and are properly implemented. Control and elimination for some PC-NTDs started way back in 1990s with Guinea Worm and Onchocerciasis supported by Uganda Government and collaborating partners such as TCC, GTZ, Sightsavers, UNICEF, WHO/APOC. In 2013, Uganda being a signatory to the international treaties and conventions for the elimination of targeted diseases and also committed to control and elimination of targeted NTDs by the year 2020, Ministry of Health developed and launched a 5 year NTD Master plan for the period 2013-2017. This plan was later reviewed and adjusted to cover the period 2017-2023. The current program and activity implementation by Government and partners is based on this Master Plan.

The implementation of this Master plan has so far realized significant achievements. Interruption of Onchocerciasis transmission has been achieved in 24 out of 39 previously endemic Districts. Transmission of active trachoma has been interrupted in 36 of 39 districts that were classified as endemic after baseline epidemiological surveys (2006-2014). Transmission assessment surveys for LF show that transmission has been stopped in 48 out of 57 endemic districts. Schistosomiasis on the other hand show a 20% reduction in the disease prevalence. Significant achievements have also been recorded in the control of some of the CM-NTDs.

**Interventions for PC-NTDs**

Mass Drug Administration (MDA) with Ivermectin plus Albendazole for LF started in 2002 in Katakwi and Lira districts. In 2004, this was scaled up to cover 5 districts (Katakwi, Lira, Kotido, Moroto and Nakapiripirit). With support from USAID through RTI the number of districts under this intervention increased to 25 by 2007. In 2010/2011, all LF endemic districts implemented MDA. Transmission assessment surveys (TAS) conducted in 2014 in some of the evaluation units showed microfilaraemia (MF) prevalence of less than 1%. This has continued to improve and recent TAS continue to show encouraging results. At least 48 districts out of 57 endemic IUs have undergone and passed TAS and MDA was stopped (Figure 1). Integrated vector management has contributed much to this success. Distribution of Long Lasting Insecticide treated nets (LLINs) and implementation of Indoor residual spraying (IRS) for malaria control have had beneficial effect on LF control and elimination in Uganda.
Schistosomiasis and STH

In 2003, MDA was initiated in highly endemic communities and schools. After completion of mapping in 2013, MDA was extended to school going children in 30 low endemic districts with support from SCI. At the moment, there are 86 endemic districts of which 43 are categorized as highly or moderately endemic. All these districts benefit from MDA using Paraziquantel alone or in combination with Albendazole. In low endemic areas MDA is done among School Age Children (SAC) only. In some endemic areas, prevalence and morbidity due to schistosomiasis have been greatly reduced. However in some others, especially along the Albertine area (Buliisa, Hoima, Pakwach) and the shores of Lake Victoria (Mayuge, Buvuma) an upsurge has been observed. STH is endemic in all the districts. Interventions have been based on twice annual treatment with Albendazole or Mebendazole during Child Health Days, targeting children aged 1-15 years. Deworming also takes place during LF MDAs where IVM – Albendazole combination has been shown to be very effective. Generally, school based MDA for schisto and STH have proven to be cost effective.

Onchocerciasis

In 2007, NOCP launched an elimination policy using semi-annual treatment with ivermectin and vector control/elimination in endemic communities. At the moment the program is being implemented in 39 districts. Both semi-annual and annual treatment with ivermectin supplemented by vector control/elimination is going on. Semi-annual treatment is going on in 15 districts (Madi mid-north and Rwenzori foci). Annual treatment which was going on in 2 districts has been stopped due to interruption of transmission in these foci, while vector elimination is still going on in 4 foci out of the original 9 because in 5 foci vector elimination has been achieved. Prospects for oncho elimination in the country are therefore bright as shown in Figure 2 below.
Trachoma

Baseline surveys conducted in the country between 2006 and 2014 identified 39 districts to be Trachoma endemic. Clinical assessments were carried out in children aged 1-9 years of age for inflammation of the inside part of eyelid a condition clinically referred to as Trachomatous Follicular (TF). People aged 15 years and above were assessed for downward in-turned eye lashes that rub on the cornea, a condition known as Trachomatous Trichiasis (TT). Also Corneal Opacity (CO) a condition that brings irreversible blindness was assessed in this same age group. A district was classified as Trachoma endemic if the TF prevalence was found to be ≥5% during the baseline surveys and such a district qualified to implement Surgery, Antibiotic, Facial washing and Environmental Improvement (SAFE) strategy. This strategy was designed by WHO and other Trachoma stakeholders as an intervention strategy to control and eliminate blinding trachoma. It was thereafter implemented in all trachoma endemic countries. After completion of baseline surveys, the following sub-regions were found to be endemic for trachoma. Some of these region lie in close proximity to neighboring countries and has implications for cross border transmission.

- Busoga – Eastern
- Karamoja - Eastern
- Lango - Northern
- Acholi - Northern
- West Nile - Northern
- Bunyoro - Western

Interventions towards elimination of Trachoma in Uganda started on small scale in 2007 with 7 districts in Busoga and Karamoja sub regions, Eastern Uganda. By 2014, trachoma elimination program had scaled up the SAFE strategy to cover all 39 trachoma endemic districts in the country. Mass Drug Administration with azithromycin is the main intervention; and this is supported by
USAID through Envision/RTI. The antibiotics (azithromycin) used in MDA are provided free of charge by Pfizer and RTI (TEO). Each endemic district conducts a specified number of rounds of MDA depending on the prevalence levels of TF found during baseline surveys. Eyelid surgeries started with support from The Queen Elizabeth Diamond Jubilee Trust (The TRUST).

Substantial progress towards the elimination goal has been achieved. Elimination goal is said to have been reached when the prevalence of active infection or TF is < 5% and that eyelid in turning due to trachoma infection (TT) is <0.1% or one TT case per 1000 people in the general population. The prevalence of TF has reduced and continues to reduce and at the moment only 3 districts (Nakapiripirit, Moroto, and Nabilatuk) of the total 39 that were originally endemic need to carry out MDAs. The rest have stopped MDA since transmission of active Trachoma was interrupted (Figure 3).

Trichiasis surgeries have been conducted during TT camps with support from The Queen Elizabeth Diamond Jubilee Trust (THE TRUST). All districts where TT cases were found have conducted TT camps with varying successes. Some districts have reached the Ultimate Intervention Goal (UIG) while others still need to conduct more TT surgery camps for the remaining cases.

![Figure 3: Status of Trachoma elimination in Uganda.](image)

**Review of Cross border NTD situation:**

1. **Uganda-South Sudan border**

Uganda shares borders with the following Equatorial regions of South Sudan: eastern, central, and western regions. These are highly endemic of NTDs, including Visceral leishmaniasis (VL, also called Kala-azar), Human African Trypanosomiasis, Trachoma, Soil-transmitted helminthes infections (STH: hookworm, ascariasis and trichuriasis), Lymphatic filariasis (LF), Onchocerciasis, loiasis (Western Equatorial State) Schistosomiasis (both Schistosoma
*haematobium* and *S. mansoni*), Dracunculiasis (guinea worm), Leprosy, Buruli ulcer, Nodding disease, Mycetoma and Rabies (FMOH, RSS,2016). These regions affect Uganda in two ways.

i) **Cross border transmission**

Many ethnic groups have relatives in Uganda e.g., Kaakwa, Mandiadi and Toposa. There are free movements of people across the border and hence if they have NTDs, these can be passed on to the communities on the other side of the border.

ii) **Refugees movement**

There are many refugees originating from South Sudan due to civil strife and majority are resettled in camps located in Arua, Moyo, Adjumani, Yumbe, Lamwo, and Kiryandongo districts. Conditions that favor the transmission of these NTDs still exist in Uganda. If these refugees have NTDs then they would be passed on to the local communities that live around these camps. Although South Sudan has a national program to address NTDs (supported by partners like TCC), the current civil war in the country has affected intervention activities and as such programs like trachoma elimination may not attain the goal of trachoma elimination by 2020.

2) **Uganda-Kenya border**

NTDs that are endemic at the borders are trachoma, Leishmaniasis and schistosomiasis. Endemicity of Trachoma is currently confirmed in 35 Implementation Units in the arid and semi-arid regions of the country. Approximately 7 million people living in these sub counties are at risk of infection with Trachoma. 48 sub-counties are endemic of active trachoma and these are situated in the western part of Kenya bordering Uganda (KMOH, 2016). Karimurio et al. (2006) found the prevalence of TF and TT in west Pokot to be 26.6% and 5.7% respectively. The Turkana and Pokot people move into and out of Uganda freely (indeed some have homes/families on both sides of the border) and hence transmission across border can take place. To address this situation harmonized control/elimination intervention activities in the two sister countries through cross-border collaboration is necessary.

3) **Uganda- Tanzania border**

Tanzania is endemic of some of PC-NTDs e.g. trachoma. However, Tanzania does not pose a threat to Uganda. Districts in Tanzania which are endemic are far inland from the common border with Uganda. Prevalence of trachoma along Uganda-Tanzania border is below 5%. Furthermore, at the moment there are no situations that are likely to cause big population movements from Tanzania to Uganda.

4) **Uganda – Rwanda border**

Uganda shares a common border with Rwanda through the districts of Kisoro, Kabale, Isingiro, Rukiga and Ntungamo. At the moment, there are no known PC-NTDs endemic in Rwanda that can cause a threat to Uganda. Both LF and Trachoma are not endemic in Rwanda.
5) **Uganda-DRC border**

Uganda shares a very long border with DRC, extending from Koboko in the north down to Kisoro in the south. There is a lot of population movements between the two countries. Although most of these movements have been for trade/business related activities, of late there has been civil strife in the DRC resulting in refugees crossing into Uganda. These refugees are now settled in the districts of Koboko, Arua, Yumbe, Hoima, Kyeggega and Kisoro. According to Rimoin and Hotez (2013), DRC could be having the highest burden of both PC and CM NTDs in Africa region. This is difficult to validate as very few extensive prevalence surveys have been done in this country. In some health zones along Uganda-DRC border, some NTDs are endemic namely trachoma, LF, oncho and plague. These are mainly found in Ituri and north Kivu provinces. For example in Ituri/Bunia, TF is estimated to be 5-29%, while in north Kivu (Goma area) is <5% and south Kivu along Tanganyika average ranges from 0- 10% but can be as high as 30% and above in some areas in the same region. Therefore a situation like this easily poses a threat of cross-border transmission of some of the NTDs.

**Cross-borders collaboration in NTD control and elimination**

It is estimated that 40% of the global NTD burden is in Africa. However, out of the 18 countries that have been validated as having eliminated one of the five diseases, only three are from Africa, namely Morocco [trachoma, 2016] , Togo [lymphatic filiasis, 2017], and Ghana (trachoma,2017). The World Health Organization has set a target of eliminating at least one NTD in 30 additional countries by 2023 (www.unitingtocombatntds.org). However, the excitement of achieving elimination like for countries mentioned in Africa (Togo, Morocco, Ghana) brings new demands and challenges that each country needs to address. Stopping the recrudescence of PC-NTDs targeted for elimination across common borders is one of the main challenges.

Cross-border collaboration between sovereign nations is a complex undertaking. For PC-NTD control and elimination programs, there is a range of issues to be considered, including mapping of endemic areas to define degrees of endemicity and overlap across the common borders, planning for interventions across borders and actually reaching affected areas regardless of national borders to ensure complete treatment coverage. Treatments are typically coordinated according to seasonal and other national considerations and cycles. Cross-border synchronization of MDA and other interventions (e.g. vector control), can allow greater impact of these interventions in border communities. For example, the transmission of pathogens that cause NTDs e.g. *O. volvulus, Wuchereria bancrofti, Schistosoma spp, Leishmania spp* etc. is closely associated with their vectors and the movement of people across the common borders. Synchronised interventions further ensure that the lifecycle of the parasite is broken in the shared focus in a coordinated and widespread manner, thereby preventing reinfection from neighbouring areas. Similarly, as some countries consider a move from annual to semi-annual treatment, cross-border alignment is necessary to ensure complementary impact on the parasite and or vector populations. As programs
near the threshold for stopping treatment and determining if transmission has been interrupted, all adjacent, endemic areas must be at the same endemicity level to prevent recrudescence.

The possibility of resurgence or importation of NTDs across borders within Africa (especially LF/elephantiasis and onchocerciasis/river blindness, trachoma, HAT, plague) from neighboring endemic countries is a concern because current scientific evidence has shown that cross-border transmission of these NTDs from one country to another is possible. For example, cross-border transmission of LF due to migration from Myanmar has affected Thailand (Bhumiratana et al. 2010; Bhumiratana et al. 2013a, b). After completing years of LF treatments, pockets of LF infection were found along Thailand’s border with Myanmar while the former was awaiting verification of disease elimination in December 2012. Health officials later discovered that the cause of these infections was migration from Myanmar and that the LF-causing parasite along Thai border areas was the same as that in Myanmar, which was different from the LF-causing parasite in other parts of Thailand (Bhumiratana et al. 2010; Bhumiratana et al. 2013a).

Population migration is a major concern in sub Saharan Africa, a region with continuous movements across porous and unmonitored borders. However, it has been noted that it is not only population movements that contribute to resurgence but equally the disease carrying vectors. There is evidence that the black fly *Simulium damnosum*, which transmits river blindness, can travel up to 400 km with the aid of prevailing winds, giving it the capacity to spread disease across multiple countries in West Africa (Crump, et.al, 2012). This can equally apply to other NTD vectors like mosquitoes, tsetse flies, sand flies and house flies. Monitoring of human and vector population movements across borders become very important in safeguarding importation/exportation of diseases.

Recognizing the importance of cross-border collaboration for the success of the control/elimination of onchocerciasis and other NTDs in Africa, the WHO’s Africa Regional Office (WHO AFRO) Regional Committee approved in 2007 a resolution (AFR/RC57/R3) calling on member states to intensify cross-border activities to strengthen surveillance and avoid spillage of infection to freed zones. While the resolution calls for improved cross-border collaboration, it does not provide any guidance for how countries are to engage in that necessary but challenging coordination process.

Given the widespread nature of NTDs across many countries in Africa, there are numerous cross-border challenges and opportunities involving NTDs during MDA. The evolution of efforts to address NTDs within the adjacent geography of three countries within the Mano River Union: Sierra Leone, Liberia and Guinea (Conakry), provides valuable lessons of how cross-border collaboration can evolve to enable effective MDA (Gustavsen, et.al. 2016). Those lessons can be further refined to develop a framework that can be applied more generally, currently unexamined through this lens, providing an opportunity for cross-border collaboration to ensure that health gains on one side of the border are secured through an appropriate cross-border integrated strategy.
Gaps in cross-border collaboration
Cross-border collaboration has been initiated in sub Saharan Africa (Gustavsen, et.al. 2016; Lakwo, et.al. 2018). Although WHO recommends the intensification of cross-border collaboration to avoid the transmission or re-introduction of infectious diseases to areas considered “freed” from NTDs (WHO/AFR/RC57/R3), there are challenges that have to be addressed. In Uganda, cross-border initiative with DRC started in 2008 to support onchocerciasis activities across the borders. Similarly, trachoma control program initiated cross-border meetings in 2015 with the aim of strengthening country level and cross-border collaborations (ITI, 2016). This cross-border collaborations initiated by the two NTD programs made some tremendous achievements in terms of rallying partners to support this initiative, obtaining some epidemiological and entomological data across the borders, convening regional meetings and undertaking some trainings as a way of capacity building for cross-border activities. Despite all these achievements there are still a number of short comings that need some attention and these can be categorized as follows:

a) **Inadequate advocacy and awareness on cross-border collaboration:** All the cross-border activities are solely being supported by partners. Ministries of Health of the respective countries have not put enough effort to advocate for government and private funding to support cross-border issues to match and leverage partner funding. NTD programs should promote awareness creation on cross-border collaboration at all levels, more specifically to border districts.

b) **Weak coordination and bilateral cooperation for cross-border collaboration:** There are still weaknesses in the coordination of cross-border collaboration among member countries. This has mainly been attributed to lack of clear policies, laws or memoranda of Understanding/protocols governing NTD cross-border collaboration. Besides, planning for activities have all along been vertical among programs for executing more or less the same set of activities.

c) **Inadequate capacity for NTD cross-border activities:** Most NTD control programs in Africa have managed to deliver interventions because of the existing trained field personnel at various levels of implementation (Hopkins, 2016). The national NTD control program belongs to the country and the beneficiary communities that need to take the ownership and responsibility over the implementation of the program activities. For a successful control program, one of the most important issues is the in-country capacity to implement such integrated control programs (Zhang, et.al. 2010). It has been noted that capacity for delivering NTD interventions is weak or lacking in some of the countries.

d) **Poor outcomes of NTD interventions across the borders:** The main intervention for PC NTDs is MDA, and this intervention has delivered success in interrupting transmission in some countries in Africa (Yao, et.al. 2013; Katabarwa, et. al, 2014). However, the quality of implementation and timing of MDA are important if a good impact is to be realized. Border districts have been grappling with fluctuating population figures and coverages that are difficult to verify because of the unsynchronized timing of treatment across the borders. If countries had been treating at the same time, the issue of population crossing borders to
get treatment in a neighboring country, would be avoided. In this era of elimination, risk of importation of disease becomes unavoidable under such circumstances.

e) **Inadequate funding for regional NTD cross-border control efforts**: To achieve regional effort to control NTDs across borders there must be adequate funding. Most countries are grappling with inadequate funding to implement planned activities within their countries, and in the absence of adequate funding, activities are partially implemented or not implemented at all. Countries should identify strategies to mobilize resources for NTD cross-border activities.

f) **Lack of harmonization in NTD surveys and impact assessment across the borders**: Integration of activities for PC NTDs has saved time and resources in a number of programs. However, this has not been the case for cross-border activities in the eastern African region. Activities like surveys (epidemiological, entomological, serological) continue to be conducted in a vertical manner, yet this could be planned jointly to save time and resources for greater impact.

g) **Weak Monitoring and Evaluation framework across the borders**: There are a number of NTD activities being conducted in border district by respective country programs, but monitoring of these activities across borders has either been non-existence or weak. To effectively monitor recrudescence there should be a clear framework for NTD surveillance between countries that share borders. This is currently lacking for most countries that share borders and are endemic for NTDs. It is quite evident that the health workers and field personnel involved in NTD implementation in the border districts handle a range of health issues. A specific focus on NTD surveillance will help in timely detection of any resurgence. Strengthening of surveillance will be achieved through coordinated planning, sensitization and capacity strengthening in districts along common borders.

**Justification**

In Uganda, so far significant achievements have been realized in NTD control and elimination. Uganda was certified free of Guinea worm in 2009; interruption of onchocerciasis transmission has been achieved in 18 out of 39 districts; interruption of LF transmission has been achieved in 48 districts out of 57; and for trachoma, interruption of transmission was achieved in 36 out of the 39 endemic districts. Morbidity due to schistosomiasis and STH has reduced to less than 20%.

However, cross-border transmission of NTDs still remains a threat to the achievements already made by the NTD program in Uganda. For onchocerciasis, threats of cross-border transmission exists with DRC border in Beni/Kasese (Rwenzori focus) and south Sudan (Madi mid-north); for LF and trachoma there are threats from the porous border of Kenya, DRC and South Sudan. Although these countries have operational NTD programs, the level of implementation and delivery of interventions varies. For instance, in the RSS, treatment coverage for NTDs in states neighboring Uganda has mainly been below the recommended threshold for elimination (e.g. oncho >80%). This low treatment coverage delays interruption of transmission and poses threats of cross border transmission. In Uganda, most of the districts where interruption of transmission
was achieved for NTDs still remain under threat due to free population movement across the borders. Therefore, the issue of strengthened cross-border collaboration and coordination for NTD control and elimination is of paramount importance if countries that share borders are to achieve the WHO elimination goal by 2020.

Over the years, Uganda has been systematic in her approach to NTD implementation and has prioritized cross-border activities in her NTD Master Plan and Health sector strategic and Development Plan. However, working closely with the partners and Ministry of Health, NTD program has been able to initiate some cross-border activities with DRC, Kenya and south Sudan. Some of these collaborations were successful and was able to deliver results for decision making on the status of NTD. For instance, joint entomological surveys conducted in north Ituri focus in DRC in 2016 has enabled the initiation of vector control activities in some of the river systems. However, due to lack of strategic plan it has been difficult for NTD program to harmonize, plan, operationalize and monitor these cross-border activities being undertaken together with the neighboring countries.

It is within this challenging context and given the limited time left for 2020 NTD elimination goal that this Strategic Plan becomes an invaluable tool.

**Vision of this plan**

Uganda and neighboring countries free of neglected tropical diseases.

**Mission**

To deliver NTDs interventions that are cost effective, sustainable, equitable and community owned, which can positively contribute to control and elimination of targeted NTDs.

**Goal**

Accelerate the reduction of the disease burden through the control and elimination of targeted NTDs across borders to prevent recrudescence.

**Objectives**

a) To strengthen collaboration with neighboring countries in order to have a coordinated NTD program across borders
b) To strengthen relevant human resource capacity and logistics for effective implementation of NTDs interventions in border districts
c) To control Schisto and STH and prevent heavy intensity infections that lead to morbidity in school aged children and high risk communities across the common borders
d) To support initiatives for synchronized cross-border activities to deliver NTDs interventions effectively among border and mobile populations
e) To develop M & E framework in all border districts for proper NTD interventions and surveillance.
f) Exploring the establishment of linkages with existing NTD cross border organizations e.g. by ITI, Oncho with a view to bringing them under one umbrella,
Targets -
For effective and proper implementation of the strategic Plan, the following targets shall be tracked:

(a) 90% of the neighboring countries would have achieved a coordinated NTD program across the borders by 2023.
(b) Appropriate human resource and other logistics available in all border districts by 2023
(c) 80% reduction in the heavy intensity schisto and STH infection achieved among school-age children and high risk population in border districts by 2023.
(d) to achieve the synchronization of NTD interventions in all border districts by 2023
(e) to develop and strengthen M & E framework focusing on data collection and utilization in all border districts for proper NTD interventions by 2023
(f) Appropriate linkages established with all NTD cross-border organizations by 2023.

Priority areas
1. Cross-border collaboration and coordination
2. Advocacy and sensitization for program support with relevant stakeholders
3. Resource mobilization and financial sustainability
4. Scale up of NTD interventions in refugee populations and other hard to reach areas
5. Establish M & E framework across the borders
6. Build capacity to support NTD interventions

Strategic direction
NTD strategic plan for cross-border activities for control and elimination of NTDs will be in line with NTD Master Plans and the control/elimination framework set in each of the respective countries. It will be guided by strategies, objectives and actions aiming at achieving the set goal. The following strategic objectives will be pursued to achieve effective implementation of NTDs cross-border interventions.

STRATEGIC OBJECTIVES

Strategic objective 1: Strengthen bilateral and multilateral cooperation for NTD control and elimination for cross-border populations among member countries

Strategy 1.1: Enhanced networking and multi-country partnerships for cross-border NTD control
Population movements across national borders are increasingly becoming cyclic with people moving between host and destination countries and back again. For populations that have been pushed out of their countries as a result of political conflicts, resettlement programs are increasingly becoming common especially in the region. This situation calls for a harmonized approach to NTD control and elimination among neighboring countries.

Uganda NTD Control Program has already initiated a number of cross-border activities in onchocerciasis and trachoma. The existing linkages now in place will be used to further strengthen collaboration between DRC, South Sudan, Kenya and Tanzania. Notwithstanding, there are still a number of issues that need to be addressed related to the existing collaboration.
Expected output 1.1:

1. Annual Joint NTD regional meeting involving country programs and supporting stakeholders.
2. Resource mobilization meeting involving national governments, local NGOs, international organizations and donor agencies.

**Strategy 1.2: Mobilize resources for regional cross-border NTD control efforts**

Regionally coordinated NTD control and elimination activities targeting mobile populations crossing international borders are largely beyond the scope of a single country program. Implementation of such activities will contribute to improved NTD treatment coverage for mobile populations, refugees and improved country-specific NTD performance in general which can help stop cross-border transmission.

Expected output 1.2:

2. A three-year’s costed work plan for each country by mid-2020 based on the strategic Plan framework.

**Strategic objective 2.0: Promote cross-border collaboration and coordination for improved NTD control and elimination.**

**Strategy 2.1:** Establishment of cross-border committees and forums for coordination in border areas. Currently, the delivery of NTD intervention is guided by country-specific Master Plans, and individual country policies and guidelines. This operating environment may sometimes hinder access to NTD interventions to certain category of populations at the borders (e.g. refugees), thus affecting treatment coverage and the overall outcome of the interventions.

Expected output 2.1:

1. Functional cross-border committees for NTD along national borders; incorporating relevant health staff, border point health officers, local leaders, customs and immigration officers by end of 2020.
2. NTD disease risk mapping for border areas completed by end of 2021

**Strategic objective 3: Improve NTD intervention outcomes for cross-border populations in member countries**

**Strategy 3.1:** Synchronization of NTD MDA and case management

The delivery of NTD intervention in the countries are tailored to the need of stable and mobile populations. However, of recent conflicts in the region have triggered mass population movements across borders. Notwithstanding, there are also some ethnic groups within the region whose cultural behaviors render them to be mobile in search for pastures, water and socio-economic amenities, thus presenting challenges to planned NTD interventions. All these call for
harmonization of standards and guidelines for NTD control both within and outside member countries. This will facilitate the sustainability of NTD intervention whenever populations move within the region.

**Expected output 3.1**

1. NTD guidelines and tools are identified for harmonization by mid-2019.
4. PC-MDA synchronized in border districts of member countries by mid-2021.

**Strategic objective 4.0:** Build capacity for NTDs to facilitate implementation of cross-border activities

**Strategy 4.1: Train health workers in NTD surveys and impact assessments**
Training field staff at border districts in NTD survey methods and impact assessments will strengthen capacity for implementation of NTD interventions. Capacity of field staff to undertake the implementation, supervision and evaluation of NTD activities in some countries are weak, thus, through training the level may be raised. There are other supplementary interventions like vector control which is only being practiced in Uganda, and if this is to be adopted by other countries, appropriate training will be required.

**Expected output 4.1**

a) Needs assessments – human, equipment etc.

b) Identification of NTD training tools to be harmonized by mid-2019.

c) Harmonization of and adoption of training tool to be used by countries by end of 2019.

d) Health workers trained on NTD surveys and impact assessments by mid-2020.

**Strategy 4.2: Learn best practices in NTD implementation to improve intervention outcomes**
Countries in the East African region are in different stages of NTD control and elimination. Sharing of experiences in NTD activities through on-job training attachment to some programs will go a long way to support some field and health staff on the practical aspects of NTD implementation. This will be through joint implementation of activities across the borders.

**Expected output 4.2:**

a) Identify health workers from DRC and RSS for attachment during MDA and vector activities in Uganda by mid-2019.

b) Identify field staff from DRC and RSS for attachment in data management in Kenya and Uganda by end of 2019.

c) Carry out on-job training for MDA , vector control and data management by end 2020.

**Strategic objective 5: Develop M & E frame works across the borders**

**Strategy 5.1:** Train NTD supervisors in effective support supervision
The delivery of NTD interventions has been ongoing in endemic countries. The therapeutic coverages of these interventions has not been up to the recommended thresholds in some places.
Some of the identified reasons for this include: weak support supervision and weak or lack of M &E frame work in border districts.

**Expected output 5.1:**

a) Develop appropriate support supervision checklist by end 2019  
b) NTD supervisors trained in effective support supervision  
c) Develop M and E plan for cross-border activities.

**Strategy 5.2: Strengthen NTD data utilization at cross-border districts.**

The collection and compilation of NTD data has been poor in some areas and has resulted in inaccurate program coverage being reported. The treatment data in NTD register at times are not consistent with errors and usually affects the final results.

**Expected output 5.2:**

a) CMDs trained in NTD data collection, compilation and reporting  
b) District NTD data manager/statisticians trained in NTD data compilation, analysis, interpretation and dissemination

**Strategy 5.3: Strengthen NTD disease surveillance across the borders**

Disease surveillance is important in monitoring and detection of transmission, importation, exportation and reporting for appropriate response.

**Expected output 5.3:**

a) District public health personnel trained in NTD surveillance.

**Strategic objective 6: Advocacy and sensitization on NTDs across the borders**

**Strategy 6.1: Create awareness on NTD cross-border activities at region, district and communities.**

Awareness is important when advocating for program support and ownership at all levels. Similarly, uptake of NTD interventions can improve among endemic communities when they are fully aware of the disease and the extent it affects them.

**Expected output 6.1**

a) Awareness creation meetings conducted on NTD cross-border activities.  
b) Harmonized IEC materials for cross-border developed by end of 2020  
c) Harmonize radio and TV messages on cross-border activities

**M&E for cross-border activities**

This Strategic Plan will be implemented by the NTD control programs in the countries involved in key activities to address the NTD control and elimination challenges associated with the movements of populations across international borders. These challenges are largely beyond the mandate of individual countries NTD programs. Besides, the overall program monitoring at outcome level will target processes and outputs that contribute to the overall goal of this Strategic Plan. The details of expected results, indicator and targets are shown in Appendix 3. In this regard:
a) Each country will come out with its own agreed indicators based on the NTD monitoring and evaluation framework in the country (appendix 3, indicators for Uganda).

b) Each of the countries will monitor the implementation of the cross-border activities on her side, but joint monitoring will be encouraged to share best practices.

c) Harmonization of NTD data collection tools to be done in all border districts for easy data compilation, analysis, interpretation and dissemination.

d) Countries will collect data on implementation of cross-border activities and this will be shared during joint planning and review meetings.

e) Joint periodic Evaluation of cross-border activities will be conducted by countries with the support of partners.

f) Coordinated NTD disease surveillance to be carried out in all border districts using harmonized tools.

Roles and Responsibilities of countries
The roles and responsibilities will be categorized under member countries and the supporting partners in the region. In order to implement this Strategic Plan effectively, the following actions will support the key activities planned.

Actions by Countries
a) **Memorandum of Understanding (MoUs)/Protocol**: All countries involved should assist in facilitating the preparation and submission of required documents to relevant government authorities for endorsement. Countries can also explore other platforms like East African Community to see if this can support issues on cross-border collaboration. There are a number of protocols that could equally be useful to facilitate free movement across the borders and these should be explored.

b) **Human resource**: Countries should ensure availability of quality and adequate human resources for NTD implementation.

c) **Measuring Progress**: Countries will have the responsibility to convene annual regional cross-border meetings with other countries and organize district cross-border planning and review meetings. Uganda and Kenya have had several cross-border meetings before and they should spearhead the organization of regional meetings; and these meetings should be rotated in the various countries to allow proper sharing of experiences.

d) **Capacity building for cross-border activities**: Countries should develop and adopt relevant training manuals for Preventive Chemotherapy (PC) and Case Management (CM) to facilitate various cross-border trainings. Most countries have training manuals and supervisory checklists that can be customized for this purpose. The production of the materials is the responsibility of the countries involved.
e) **Key interventions**: Uganda is far ahead in the elimination of PC-NTDs, therefore will provide relevant guidance in areas of mapping, epidemiological, entomological and serological surveys. It may in collaboration with neighboring countries provide support for disease burden assessment of CM-NTDs. However, all countries are encouraged to support these activities within their national programs.

f) **Support for supplies for cross-border activities**: Each of the countries should ensure regular and adequate supplies of commodities for NTD interventions which include medicines and other resources (lab tests and reagents, etc.). Countries should support customs clearance, reception and delivery to implementing units of imported materials and should guarantee the quality of medicines and laboratory tests. Should ensure availability of other logistics for field activities including vehicles, motorcycles and bicycles.

g) **Exchange Programs**: Countries should promote and facilitate exchange of program staff in an effort to share good practices in NTD implementation. This will help in health systems strengthening and meeting the challenges emerging in cross-border collaboration.

h) **Information sharing**: Countries should freely share information among themselves and partners in the spirit of strengthening cross-border collaboration and coordination.

**Actions by Partners**

There are a number of partners supporting NTD implementation in Kenya, Uganda, Tanzania, Rwanda, DRC and RSS. Some of these partners include RTI/Envision, The Carter Center, Sightsavers, Maltersier International, IMA, CBM, The TRUST, Hellen Keller, End Fund, ESPEN, Lions Club International and others.

To support cross-border collaboration and implement this Strategic Plan for 2019-2023, the partners shown above and others should:

a) **Support national NTD program**: They should where they can provide financial and logistical support to programs to allow them implement activities stipulated in the plan.

b) **Harmonization of support**: Partners supporting border districts should harmonize their support with those across the borders to ensure that resources are maximized for better results. This will be specifically in implementing cross-border plans.

c) **Sharing of reports**: Partners should ensure that reports of activities they support are shared among the stakeholders to create transparency and promotion of partnership in cross-border collaboration.
COORDINATION MECHANISM FOR CROSS BORDER COLLABORATION

The implementation of this Strategic Plan can only be effectively done with a clear coordination mechanism among the relevant stakeholders. The coordination framework proposed (Figure 1) places each national NTD control Program at the forefront and as a central locus of all the cross-border activities. There will be three levels: national for planning, policy/guidelines formulation, advocacy and resource mobilization; District for micro-planning, resource mobilization, program implementation; and community at border districts for social mobilization, implementation, data collection and submission. The NTD control program in conjunction with supporting partners will initiate cross-border activities, and through the Ministry of Health get in touch with their counterparts in neighboring countries for consultation/review of planned activities for harmonization. The MOH can either communicate through MFA to link up with the respective embassies of the countries to be involved; or may go through the WHO country office who can get in touch with WHO country office of that particular country. It has been noted that in most of the circumstances communication through WHO country office has proved faster than using MFA where the bureaucracy sometimes is quite long.

On the refugee issues, NTD Control program will work with the refugee desk officer at the MOH. The desk officer will liaise with the Office of the Prime Minister and UNHCR to organize for any survey or intervention for NTDs in the settlement camps. Regarding cross-border meetings at regional or district levels, NTD control program will plan this in conjunction with supporting partners and involved districts. Invitation letters will be generated by NTD program for MOH top management endorsement, and will be channeled to the neighboring countries through WHO country office or MFA. For the local cross-border in-country meetings, NTD control program together with supporting partners will plan and conduct the meetings. For participants across the border, invitations can be sent through the District cross-border committee chairperson. The formation of CBC is envisage to improve communication across borders as this will include some officials from across the border. This committee will also serve as supervisors on cross-border activities linking up with district health office and other field staff.

Overall: the coordination of cross-border activities will lie on the NTD country program working closely with supporting partners. However, other line Ministries like MFA, MOD and OPM may help to bridge gaps in areas where their support is required. For instance, MOD may come in circumstances where security situation at border areas is fragile. For implementation of cross-border activities, the DHT working closely with CBC and political leaders will plan and execute the planned activities. This plan further proposes engagement of a NTDs cross-border consultants at national level to support program managers on the planning, implementation, supervision, monitoring and evaluation of cross-border activities.

Another coordination mechanism option can be offered through WHO office. WHO has been responsible for providing technical oversight on health issues in most of the countries, and this places it in a better position to coordinate countries under one umbrella. Cross-border meetings can be organized under the auspices of WHO that will ensure countries nominate relevant
participants. Countries can then select a chair for the regional cross-border committee, and a country where the chair comes from will automatically host the secretariat for a 3-year period before it is rotated to another country. Annual meetings for participating countries will be held where action plans are drawn and strategies for NTD implementation across borders and resource mobilization are drawn. This coordination mechanism may only be challenge by availability of funding since WHO may not have the funds to undertake coordination activities and support countries. However, if alternative funding can be obtained, this could be an option to move cross-border activities forward with a strong regional focus.

**Figure 1: Coordination mechanism for cross-border collaboration (Uganda).**
### Table 1: Log Frame for implementation of cross-border activities in Uganda

The log frame shows in Table 1 has the goal, strategic objectives, strategy, activities, output, indicators, means of verification and assumptions.

**Goal:** Accelerate the reduction of the disease burden through the control and elimination of targeted NTDs across the borders to contribute to poverty alleviation, increased productivity and better quality of life of the affected population.

<table>
<thead>
<tr>
<th>Strategic objectives</th>
<th>Strategy</th>
<th>Activities</th>
<th>Output</th>
<th>Indicators</th>
<th>Means of verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengthen bilateral and multilateral cooperation for NTD control and elimination for cross-border populations among member countries</td>
<td>Enhanced networking and multi-country partnerships for cross-border NTD control</td>
<td>Conduct annual regional meeting. Conduct resource mobilization meeting for agencies and donors</td>
<td>Annual joint regional meeting held. Resource mobilization meeting involving all stakeholders and donors held</td>
<td>No. of meetings held. No. of resource mobilization meetings held. % of districts that conducted annual and resource mobilization meetings.</td>
<td>Signed minutes of annual regional meeting. Report for resource mobilization meeting.</td>
<td>All member countries send teams to attend the meeting. Resources to attend the meeting are availed.</td>
</tr>
<tr>
<td>Mobilize resources for regional cross-border NTD control efforts.</td>
<td>Develop resource mobilization strategy and guidelines Develop a costed work plan for cross-border to guide resource mobilization and implementation.</td>
<td>Strategy and guidelines for resource mobilization developed. Costed work plan available for each country.</td>
<td>No. of countries with strategy and guidelines. No. of countries with work plans</td>
<td>Resource mobilization guidelines available for use</td>
<td>Copy of the work plan available and endorsed by each country.</td>
<td>Resources to support meeting available.</td>
</tr>
<tr>
<td>Promote cross-border collaboration and coordination for improved NTD control and elimination.</td>
<td>Establishment of cross-border committees and forums for coordination in border areas.</td>
<td>Hold joint cross-border meetings to form cross-border committees Conduct NTD disease risk mapping at border district with support of CBC.</td>
<td>Functional cross-border committee established. NTD risk mapping conducted in border districts.</td>
<td>No. of districts with functional cross-border committees No. of border districts mapped for NTDs.</td>
<td>Records showing membership of this committee. Minutes of CBC meetings. Maps of NTD distribution in border districts.</td>
<td>Availability of partner’s support.</td>
</tr>
<tr>
<td>Improve NTD intervention outcomes for cross-border populations in member countries</td>
<td>Synchronization of NTD MDA and case management</td>
<td>Conduct meeting for NTD guidelines and data tools harmonization. Train health workers/field staff in use of harmonized guidelines and tools. Conduct synchronized MDA in border districts.</td>
<td>Harmonized NTD guidelines and tools available for use. Health workers, CMDs and other field staff trained in the use of harmonized guidelines and tools. Synchronized PC-NTD MDAs conducted.</td>
<td>%. of districts with harmonized NTD guidelines and tools. Number of health workers, CMDs and field staff trained. No. of districts that conducted training. No. of districts that conducted synchronized PC-NTD MDA. No. of districts with improved MDA coverage.</td>
<td>Copies of harmonized NTD guidelines and tools available. Lists of trained health workers, CMDs and other field staff. Report on synchronized PC-NTD MDA at the border districts.</td>
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<tr>
<td>Build capacity for NTD cross-border activities</td>
<td>To train field and laboratory staff</td>
<td>Training field staff on NTD epidemiological studies, impact surveys. Training laboratory staff on NTD diagnostic techniques</td>
<td>Field staff trained in epidemiological surveys. Laboratory staff trained in NTD diagnostic/techniques.</td>
<td>No. of field staff trained on NTD epidemiological surveys No. of lab staff trained</td>
<td>Training report</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Health workers for training Available. Resources to support training Available.</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
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<tr>
<td>To promote best practices</td>
<td>Identify health workers from DRC and RSS for on-job training during MDA and vector control activities</td>
<td>Health workers from DRC and RSS identified and attached.</td>
<td>No. of health workers from DRC and RSS identified and attached. No. of health workers DRC and RSS who received on-job training.</td>
<td>On-job training report</td>
<td>Same as above</td>
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<tr>
<td></td>
<td>Identify health workers from DRC and RSS for on-job training on NTD</td>
<td>Health workers identified for on-job training in NTD data management.</td>
<td>No. of health workers from DRC and RSS identified and trained.</td>
<td>Report on-job training.</td>
<td>Same as above</td>
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</tr>
<tr>
<td>Activity</td>
<td>Action</td>
<td>Target</td>
<td>Output</td>
<td>Notes</td>
<td></td>
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<tr>
<td>data management in Uganda and Kenya.</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Conduct on-job training for MDA and vector control in Uganda and Kenya for DRC and RSS.</td>
<td>Training for DRC and RSS health workers conducted</td>
<td>No. of health workers from DRC and RSS trained</td>
<td>Report on MDA and vector control on-job training available.</td>
<td>Same as above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develop M &amp; E framework across the borders</td>
<td>Train NTD supervisors in effective support supervision</td>
<td>Conduct meeting to develop appropriate support supervision checklists.</td>
<td>Support supervision checklist developed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strengthen NTD data utilization at district and lower levels</td>
<td>Training CMDs in border districts in data collection, compilation and reporting</td>
<td>CMDs trained in data collection, compilation and reporting.</td>
<td>No. of CMDs trained. No. of border districts that trained CMDs on data management.</td>
<td>Report on CMDs training. Trained CMDs available.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strengthen NTD disease surveillance across the borders</td>
<td>Train public health staff in NTD surveillance</td>
<td>Public health staff trained in NTD surveillance.</td>
<td>No. of public health staff trained. No. of border districts with improved data utilization (complete and timely reporting).</td>
<td>Report on training in surveillance. Availability of disease surveillance report.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advocacy and sensitization on NTDs across the borders</td>
<td>Create awareness on NTD cross-border activities at region, district and communities.</td>
<td>Conduct awareness creation meetings on NTDs in border districts.</td>
<td>Awareness creation meetings on NTD held.</td>
<td>Report on meeting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct stakeholders meeting to harmonize IEC materials for cross-border activities</td>
<td>Stakeholders meeting to harmonize IEC materials conducted.</td>
<td>No of meeting held. No. and type of IEC materials harmonized.</td>
<td>Report on stakeholders meeting. IEC materials harmonized.</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Conduct stakeholders meeting to harmonize electronic and print media on cross-border activities</td>
<td>Stakeholders meeting to harmonize electronic and print media conducted.</td>
<td>No. of meetings held. No. electronic and print media messages harmonized.</td>
<td>Report on stakeholders meeting. Harmonized messages.</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

26
Conclusion
The development of this Strategic Plan arose from the need by NTD control and elimination program to track and safeguard the achievements already made in the interruption of transmission of some NTDs in the country. The plan has identified cross-border collaboration and coordination gaps, strategic objectives, key priority activities, outputs, indicators, means of verification and assumptions. Furthermore, this plan provides strategic direction on how cross-border activities by NTD control program should be planned and conducted. Key roles and responsibilities of the involved stakeholders have also been highlighted. Appropriate coordination mechanism for the plan was proposed. However, strong commitment and advocacy by leaders at all levels in the involved countries is crucial for successful implementation of this plan.
References

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### APPENDIX 1: NTD cross-border monitoring Framework for 2019-2023

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>INDICATORS</th>
<th>Baseline</th>
<th>Target 2019</th>
<th>Target 2020</th>
<th>Target 2021</th>
<th>Target 2022</th>
<th>Target 2023</th>
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<tbody>
<tr>
<td><strong>Strategic objective 1: Promote bilateral and multilateral cooperation for NTD control and elimination for cross-border populations among member countries</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct annual regional meeting</td>
<td>No. of meetings held.</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>Conduct resource mobilization meeting for agencies and donors</td>
<td>No. of resource mobilization meetings held</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>1</td>
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<tr>
<td>Develop resource mobilization strategy and guidelines</td>
<td>No. of countries with strategy and guidelines</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>6</td>
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<tr>
<td>Develop a costed work plan for cross-border to guide resource mobilization and implementation</td>
<td>No. of countries with work plans</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>6</td>
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<tr>
<td><strong>Strategic objective 2: Promote cross-border collaboration and coordination for improved NTD control and elimination</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Hold joint cross-border meetings to form cross-border committees</td>
<td>No. of districts with functional cross-border committees</td>
<td>0</td>
<td>4</td>
<td>13</td>
<td>17</td>
<td>17</td>
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<tr>
<td>Conduct NTD disease risk mapping at border district with support of CBC.</td>
<td>No. of border districts mapped for NTDs.</td>
<td>TBD</td>
<td>6</td>
<td>12</td>
<td>17</td>
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<tr>
<td><strong>Strategic objective 3: Improve NTD intervention outcomes for cross-border populations in member countries</strong></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conduct meeting for NTD guidelines and data tools harmonization.</td>
<td>No. of cross-border districts with harmonized NTD guidelines and tools.</td>
<td>0</td>
<td>4</td>
<td>8</td>
<td>17</td>
<td>17</td>
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<tr>
<td>Train health workers/field staff in use of harmonized guidelines and tools</td>
<td>Number of health workers, CMDs and field staff trained</td>
<td>0</td>
<td>34</td>
<td>136</td>
<td>646</td>
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<tr>
<td>Conduct synchronized MDA in border districts</td>
<td>No. of districts with improved MDA coverage</td>
<td>0</td>
<td>3</td>
<td>7</td>
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<tr>
<td><strong>Strategic objective 4: Build capacity for NTD cross-border activities</strong></td>
<td></td>
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<td></td>
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<tr>
<td>Training field staff on NTD epidemiological studies, impact surveys.</td>
<td>No. of field staff trained on NTD epidemiological surveys</td>
<td>0</td>
<td>20</td>
<td>34</td>
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<tr>
<td>Training laboratory staff on NTD diagnostic techniques</td>
<td>No. of lab staff trained</td>
<td>0</td>
<td>8</td>
<td>42</td>
<td>144</td>
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<tr>
<td>Identify health workers from DRC and RSS for on-job training during MDA and vector control activities</td>
<td>No. of health workers from DRC and RSS identified and attached.</td>
<td>TBD</td>
<td>4</td>
<td>6</td>
<td>10</td>
<td>14</td>
<td>14</td>
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<tr>
<td>Identify health workers from DRC and RSS for on-job training in Uganda and Kenya on NTD data management.</td>
<td>No. of health workers from DRC and RSS identified and trained.</td>
<td>0</td>
<td>4</td>
<td>6</td>
<td>10</td>
<td>14</td>
<td>14</td>
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<tr>
<td>Conduct on-job training for MDA and vector control in Uganda and Kenya for DRC and RSS.</td>
<td>No. of health workers from DRC and RSS trained</td>
<td>0</td>
<td>4</td>
<td>8</td>
<td>16</td>
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</table>
### Strategic objective 5: Establish M & E framework across the borders

<table>
<thead>
<tr>
<th>Activity</th>
<th>No. of meetings held.</th>
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<th>0</th>
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<tbody>
<tr>
<td>Conduct meeting to develop appropriate support supervision checklists.</td>
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<tr>
<td>Identify and train NTD supervisors on effective support supervision</td>
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<td>17</td>
<td>51</td>
<td>102</td>
<td>119</td>
<td>119</td>
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<tr>
<td>Training CMDs in border districts in data collection, compilation and reporting</td>
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<td>0</td>
<td>40</td>
<td>60</td>
<td>80</td>
<td>100</td>
<td>120</td>
</tr>
<tr>
<td>Train data manager/statisticians in data compilation, analysis, interpretation and reporting</td>
<td></td>
<td>0</td>
<td>4</td>
<td>8</td>
<td>12</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>Train public health staff in NTD surveillance</td>
<td></td>
<td>0</td>
<td>17</td>
<td>42</td>
<td>68</td>
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### Strategic objective 6: Advocacy and sensitization on NTDs across the borders

<table>
<thead>
<tr>
<th>Activity</th>
<th>No. of meetings held.</th>
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<tbody>
<tr>
<td>Conduct awareness creation meetings on NTDs in border districts</td>
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<tr>
<td>Conduct stakeholders meeting to harmonize IEC materials for cross-border activities</td>
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<td>2</td>
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<tr>
<td>Conduct stakeholders meeting to harmonize electronic and print media on cross-border activities</td>
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