



Nepal Work Plan

FY 2018

Project Year 7

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ENVISION Project Overview

The US Agency for International Development (USAID)'s ENVISION project (2011–2019) is designed to support the vision of the World Health Organization (WHO) and its member states by targeting the control and elimination of seven neglected tropical diseases (NTDs), including lymphatic filariasis (LF), onchocerciasis (OV), schistosomiasis (SCH), three soil-transmitted helminths (STH; roundworm, whipworm, and hookworm), and trachoma. ENVISION's goal is to strengthen NTD programming at global and country levels and support ministries of health (MOHs) to achieve their NTD control and elimination goals.

At the global level, ENVISION—in close coordination and collaboration with WHO, USAID, and other stakeholders—contributes to several technical areas in support of global NTD control and elimination goals, including the following:

- Drug and diagnostics procurement, where global donation programs are unavailable
- Capacity strengthening
- Management and implementation of ENVISION's Technical Assistance Facility (TAF)
- Disease mapping
- NTD policy and technical guideline development
- NTD monitoring and evaluation (M&E)

At the country level, ENVISION provides support to national NTD programs by providing strategic technical and financial assistance for a comprehensive package of NTD interventions, including the following:

- Strategic annual and multi-year planning
- Advocacy
- Social mobilization and health education
- Capacity strengthening
- Baseline disease mapping
- Preventive chemotherapy (PC) or mass drug administration (MDA)
- Drug and commodity supply management and procurement
- Program supervision

M&E, including disease-specific assessments (DSAs) and surveillance

In Nepal, ENVISION project activities are implemented by RTI.

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ACRONYMS LIST

ALB	Albendazole
ASTMH	American Society of Tropical Medicine and Hygiene
CDC	US Centers for Disease Control and Prevention
CDD	Community Drug Distributors
CHD	Child Health Division
CNTD	Center for Neglected Tropical Diseases
DPHO	District/Public Health Office
DEC	Diethylcarbamazine Citrate
DEO	District Education Office
DoE	Department of Education
DQA	Data Quality Assessment
DSA	Disease-Specific Assessment
DWSS	Department of Water and Sanitation Services
EDCD	Epidemiology and Disease Control Division
EU	Evaluation Unit
FCHV	Female Community Health Volunteers
FOG	Fixed Obligation Grant
FTS	Filariasis Test Strips
FY	Fiscal Year
GoN	Government of Nepal
GTMP	Global Trachoma Mapping Project
ICT	Immuno-chromatographic test
IEC	Information, Education, and Communication
IU	Implementation Unit
JRSM	Joint request for selected medicines
LF	Lymphatic Filariasis
M&E	Monitoring and Evaluation
MDA	Mass Drug Administration
MMDP	Morbidity Management and Disability Prevention
MoE	Ministry of Education
MoH	Ministry of Health and Population
NHSP3	National Health Sector Programme III
NGO	Nongovernmental Organization
NNJS	Nepal Netra Jyoti Sangh
NTD	Neglected Tropical Disease
NTP	National Trachoma Program
PC	Preventive Chemotherapy
PPICD	Policy, Planning, and International Cooperation Division
PSAC	Pre-School-Aged Children
Q	Quarter
RPRG	Regional Programme Review Group
SAC	School-Aged Children
SAE	Serious Adverse Events
SAFE	Surgery–Antibiotics–Facial cleanliness–Environmental improvements
SEARO	South-East Asia Region

STH	Soil-Transmitted Helminths
TAS	Transmission Assessment Survey
TF	Trachomatous Follicles
ToT	Training of Trainers
TSS	Trachoma Surveillance Survey
TT	Trachomatous Trichiasis
TWG	Technical Working Group
USAID	United States Agency for International Development
VBDRTC	Vector Borne Disease Research Training Center
VDC	Village Development Committee
WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization

COUNTRY OVERVIEW

1) General Country Background

a) Administrative Structure

Nepal, bordering India on three sides and China on the fourth, has 75 districts, divided into five development regions. Districts are further divided into municipalities or village development committees (VDCs), depending on population and infrastructure. Both municipalities and VDCs are further divided into wards, the lowest administrative level. Each district has local health, education, and other offices, which are responsible for implementing government programs. In smaller districts, district hospitals and public health offices are integrated into district health offices; larger districts have separate public health offices. The neglected tropical disease (NTD) control program is housed within public health offices. (For convenience, throughout the work plan, these district/public health offices will both be abbreviated DPHO.) Below the DPHOs are between 9 and 11 reporting units (sub-district-level health facilities), and under each reporting unit health facility there are between five and seven village-level health facilities. Female community health volunteers (FCHVs) report to village-level health facilities and are the main cadre that conduct public health campaigns at the community and household levels. Every district has a District Education Office (DEO) and 20–25 resource centers in its catchment area. Resource persons manage the resource centers and mobilize and coordinate government activities. In addition, each school has a school health teacher who is responsible for health activities, including the school health program. Under the school health program, school health teachers coordinate with local health facilities for deworming school-aged children (SAC).

New Federal Governance Structure

In March 2017, the Government of Nepal (GON) began to implement a new federal structure of governance, which was proposed in the 2015 constitution. Under this new structure, Nepal will have seven provinces and remain with 75 districts. The districts are further divided into 744 local levels, consisting of 4 metropolitan cities, 13 sub-metropolises, 246 municipalities, and 481 village municipalities (*gaunpalikas*) depending on population and infrastructure. Both urban municipalities and rural municipalities are further divided into wards, which are the lowest level of administration in the country. Under this new structure, DPHOs and DEOs may no longer be used; instead, their functions are expected to be executed by local bodies and coordinated by district coordination committees under provincial and central government. Under the federal structure, organizational change will take place, creating federal ministries of health and population in each province, and will require the management of changes in administrative structure including staff, office set up, logistics, and equipment. RTI will continue to work closely with the GoN to ensure the programs are best supported, which may include increased interaction with the governments of endemic lymphatic filariasis provinces, municipalities, and urban and rural municipalities.

Nepal is endemic for three of the targeted NTDs for which preventive chemotherapy (PC) is available: **lymphatic filariasis (LF), trachoma, and soil-transmitted helminths (STH)**. The GoN initiated LF elimination activities in 2003 and the STH control program for SAC (grades 1–5) in 2008. Later, the program expanded to cover school children in grades 1–10 in FY09. The trachoma elimination program commenced in 2002 implemented by a Nepali nongovernmental organization (NGO), Nepal Netra Jyoti Sangh (NNJS), through the National Trachoma Program (NTP). In 2010, the GoN approved the “*Plan of Action for Neglected Diseases in Nepal: An Integrated National Control Program (2010–2014)*.” This

document focuses on the joint efforts of the Ministry of Health (MoH) and the Ministry of Education (MoE) to control and eliminate PC-NTDs. Subsequently, the GoN developed “*National Guidelines and Tentative Plan of Action for the Elimination of Lymphatic Filariasis in Nepal (2016–2020)*” and is preparing a new plan of action for 2016–2030 with an integrated work plan for NTDs.

The GoN plays a crucial role in the nation’s NTD program. In addition to the technical leadership of the MoH, the GoN provides financial support for the implementation of mass drug administration (MDA) for the elimination of LF and the control of STH. This includes the purchase of diethylcarbamazine citrate (DEC) used during LF MDA and funding for community-based LF MDA in more than half of the country’s districts. The MoH and MoE provide joint funding for school-based STH MDA in all 75 districts. The MoH provides technical oversight of the trachoma program. The MoH also funds trachomatous trichiasis (TT) surgeries. The Department of Water, Sanitation and Sewerage (DWSS) provides funds to improve water and sanitation systems and contributes to the environmental improvement activities that form part of the trachoma and STH programs.

b) Other NTD Partners

The Nepal NTD control program is supported by two collaborating partners in addition to ENVISION (Table 1). The World Health Organization (WHO) provides technical advice, coordinates drug donations through the Joint Request for Selected Medicines (JRSM) form, and provides funds for LF morbidity management. The Center for Neglected Tropical Diseases (CNTD), at the Liverpool School of Tropical Medicine, provides funding to the MoH for social mobilization during LF MDA and for LF morbidity management, particularly for morbidity mapping and hydrocele surgeries. In FY16, morbidity mapping was conducted in two districts (Kanchanpur and Dhading). Preliminary results indicated 3,800 cases (3,000 hydrocele, 800 lymphedema) in Kanchanpur and 2,200 cases (1,400 hydrocele, 800 lymphedema) in Dhading. By end of FY16, total 3,165 cases of hydrocele surgery were conducted. In FY17, morbidity mapping and management is completed as planned in two districts (Okhaldhunga and Saptari). By the end of quarter (Q) 1 of FY17, DATA not yet available hydrocele surgeries had been conducted. The Epidemiology and Disease Control Division (EDCD) provides counseling, information, and orientation for self-care to persons living with lymphedema in areas where the Morbidity Management and Disability Prevention (MMDP) project is being implemented. The donated self-care kit includes a bucket, a towel, soap, mug, and antiseptic cream. Funding for these activities is provided by GoN in its health budget and by CNTD.

Table 1: Non-ENVISION NTD partners working in country, donor support, and summarized activities

Partner	Location (Regions/States)	Activities	Other donors supporting these partners/ activities
MoH	Central level/all endemic areas	<ul style="list-style-type: none"> • Providing overall program leadership and national-level coordination among partners • Developing national strategy and plan of action for NTDs • Conducting pre-school and school-based STH deworming activities • Procuring DEC for LF MDA • Supporting meeting/training costs • Providing program implementation, monitoring and supervision of district-level activities • Managing/coordinating surveillance and survey 	WHO Nepal Country Office
WHO Country Office	Central level/all endemic districts	<ul style="list-style-type: none"> • Providing technical assistance • Coordinating drug and diagnostic donations and shipment • Monitoring and supervising LF MDA activities 	
RTI/Health for Life	Central and district level	<ul style="list-style-type: none"> • Strengthening the MoH's capacity to plan, manage, and deliver high-quality family planning and maternal, newborn, and child health (FP/MNCH) services • Addressing local health systems governance • Supporting use of data for decision making and evidence-based policy development • Managing human resources, quality improvement systems, and knowledge and behavior change • Providing district level health system strengthening and technical assistance 	
CNTD	Central/district level	<ul style="list-style-type: none"> • Mapping LF morbidity • Managing morbidity • Conducting social mobilization and advocacy 	UK Department for International Development
Integrated Nutrition Program (Good Nutrition SUAHARA-II)	Central level/40 districts	Sanitation and hygiene related-activities in 40 USAID-funded SUAHARA districts with a goal of declaring these districts open defecation free	
Social Empowerment and Building Accessibility Centre (SEBAC) Nepal	District level/6 districts	Funding for water system construction, toilet construction, and hygiene and sanitation in Kailali, Kanchanpur, Darchula, Achham, Dolakha, and Sindhupalchowk districts	

2) National NTD Program Overview

Nepal's NTD program is coordinated at the national level through the Policy, Planning, and International Cooperation Division (PPICD). The chief of PPICD acts as the NTD Coordinator, in addition to his other duties. The NTD Secretariat is housed in the PPICD and provides assistance to the NTD Coordinator in assuring coordination and reporting among the divisions and partners managing the disease programs.

The GoN has established the NTD Technical Working Group (TWG), which coordinates implementation and monitoring of MDA, surveys, and other activities. The TWG develops strategies for specific technical challenges, such as improving coverage in urban areas. While coordination takes place at these higher levels, each disease program is housed in a separate MoH division (or NGO, in the case of trachoma), and thus each disease program is implemented separately.

To this end, it is important to note that implementation of MDA is **coordinated but not integrated in Nepal**. In districts co-endemic for LF and STH, one round of MDA is conducted by the EDCD, and a second round is carried out by the Child Health Division (CHD). In districts where only STH is endemic or where LF treatment has stopped, the CHD coordinates school-based MDA.

a) Lymphatic Filariasis

US Agency for International Development (USAID) support for Nepal's NTD programs commenced in 2009 under the NTD Control Program and continues under the ENVISION project. Support for the LF program includes funding for annual MDA in selected districts; printing and delivery of information, education, and communication (IEC) materials, training manuals; and reporting forms for all LF MDA districts. Other activities include LF sentinel and spot check site surveys, post-MDA coverage surveys, transmission assessment surveys (TAS), and technical assistance to develop the NTD plan of action, monitoring and evaluation (M&E) plan and national LF guidelines. Since 2011, USAID has provided support for LF/STH MDA in 56 districts, pre-TAS in 61 districts, TAS in 38 districts, re-mapping in 3 districts, and baseline surveys in 10 districts. USAID funding through ENVISION/RTI has supported planning and review meetings, training for FCHVs before MDA, and training orientation to GoN officials and NGO personnel on TAS. The national LF program is housed in the MoH's EDCD.

Nepal is more than halfway to achieving its elimination goal. Nepal is expecting all LF endemic districts to stop MDA by 2019. By the end of FY17, of the 61 districts endemic for LF, 37 are expected to have stopped MDA if 6 districts pass TAS1 planned for September 2017. The NTD plan of action clearly outlines strategies and plans to eliminate LF as a public health problem by 2020, through MDA with albendazole (ALB) and DEC on an annual basis for six years.

Nepal is endemic for LF in 61 districts. Mapping was conducted with a combination of immunochromatographic test (ICT) cards, night blood surveys of microfilaremia, and clinical cases. Initially, 14 districts were not mapped, based on their high altitude and low vector abundance. In 2012, two mountainous districts that border LF-endemic districts, Gulmi and Khotang, were mapped using the original WHO mapping protocol and ICT cards as the diagnostic. Results confirmed that these two districts were not endemic with LF. Similarly, in 2012 Darchula was re-mapped and results showed 1.3% prevalence, which is above the treatment threshold and triggered commencement of MDA. The remaining 12 districts, Taplejung, Sankhuwasabha, Solukhumbu, Dolakha, Rasuwa, Manang, Mustang, Dolpa, Mugu, Jumla, Humla, and Kalikot, have not been mapped on assumption that given their mountainous geography, they are unlikely to be endemic. Recently reported cases of malaria and dengue in some of these districts have led to concerns about the potential for LF transmission, and RTI will be following up with EDCD to gather additional data in FY18.

In FY18, EDCD is planning to treat 31 districts (11 with ENVISION funding) and conduct (re) pre-TAS in 10 districts and TAS1 in 14 districts. ENVISION funding and technical assistance will be requested for some of the MDA districts and all of the surveys.

MDA

In FY18, 5 of the districts receiving LF MDA (Terhathum, Sunsari, Lalitpur–rural, Surkhet, and Jajarkot) will have completed their sixth round of MDA. A sixth, Myagdi, completed seven rounds of MDA in 2017 and all will undertake TAS1 in August–September 2017. If the 6 districts pass the TAS, they will not require MDA in FY18, and only 24 districts will be targeted for treatment. The outcome of the results of the surveys for the 6 will not affect the number of the districts to be supported by ENVISION for FY18 MDA. Until the TAS is conducted and results shared, EDCD has requested that ENVISION plan to fund MDA in 11 (Darchula, Baitadi, Bajhang, Dadeldhura, Doti, Bajura, Accham, Kanchanpur, Kailai, Bardiya, Banke) of the 30 districts. The South-East Asia Region (SEARO) Regional Programme Review Group (RPRG) during its June 2017 meeting recommended two more rounds of enhanced MDA to interrupt the ongoing transmission in Bara District. The RPRG concluded that Bara is at considerable risk of ongoing transmission: it passed TAS1 by a very thin margin (20 positive children against critical cut off value of 20) and went on to fail TAS2 in 2016.

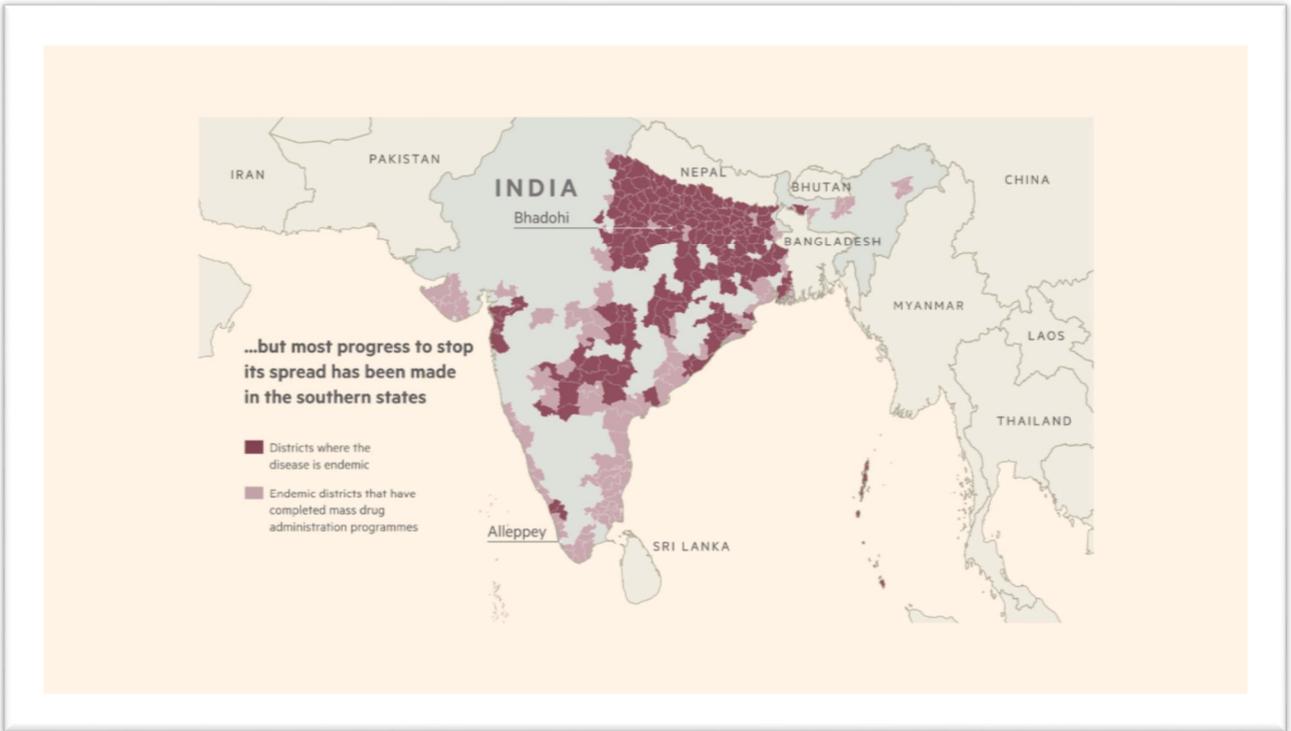
As noted in previous work plans and semi-annual reports, low MDA coverage in some urban areas is a particular challenge. To address this, in FY15 the MoH adopted a separate strategy for urban MDA. This approach includes a special advocacy campaign that targets private health facility staff, professional bodies, schools, local clubs of ethnic minorities, municipality staff, and media persons, and includes independent in-process monitoring. Alongside this, the MoH established additional booths for drug administration in public places, such as in hospitals (public and private), schools, and local community clubs. The MOH also moved to use health workers, rather than FCHVs, to carry out house-to-house visits for drug administration. The health workers provided drinking water for swallowing the medicine as well as the medicine itself. This approach continued in FY17 and reported coverage increased. However, preliminary findings from monitoring and supervisory visits conducted during the 2017 MDA continue to identify rumors and fear of side effects that are the main reasons for refusal of treatment in some areas. In FY18, ENVISION and EDCD will continue to implement tailored sensitization and social mobilization activities to address these continuing challenges. In addition, EDCD will prioritize the development of strategies to address the recent increase in pre-TAS failures.

Zone of ongoing transmission along the Indian border

In FY16 5 districts (Kapilvastu, Bhojpur, Udayapur, Banke, and Dang) and in FY17 9 districts (Panchthar, Ilam, Jhapa, Morang, Dhankuta, Lamjung, Parbat, Baglung, and Bardiya) failed pre-TAS after between five and eight rounds of MDA. Among these, Kapilvastu also failed pre-TAS in 2013. In addition, in FY16, ENVISION supported TAS2 in 15 districts, of which only Bara failed.

There is a zone of persistent transmission along the Indian border. The districts of Bardiya, Banke, Dang, Kapilvastu, Bara, Morang, Jhapa, and Ilam border India's states of Uttar Pradesh and Bihar (Figures 1 and 2).

Figure 1: Zone of ongoing LF transmission in relation to India Border



Culled from: <https://ig.ft.com/special-reports/elephantiasis/>

Figure 2: Zone of ongoing LF transmission in Nepal



Culled from: <http://demrepubnepal.blogspot.com/2014/10/5-states-75-districts.html>

At a recent SEARO RPRG and program managers meeting, a side meeting of LF experts (US Agency for International Development [USAID], RTI headquarters and Nepal office, WHO, and RPRG members) discussed compliance, pre-TAS, and the TAS failure challenges in Nepal. Key recommendations for the national NTD program included the following:

1. Implement micro-planning in districts that failed pre-TAS or TAS to target resources more effectively. Use the supervisor's coverage tool in all MDAs to identify underperforming areas. Engage social scientists to analyze and develop new strategies to improve compliance.
2. Seek assistance from the Nepal pharmacovigilance team to help develop a plan to respond to adverse events and related rumors.
3. Implement two more rounds of enhanced MDA in Bara District (failed TAS2), including robust social mobilization, to interrupt the ongoing transmission. Bara should segment the evaluation unit (EU) into areas of differing risk and implement mini-TAS to determine where re-MDA is needed.
4. Prepare districts for (re) pre-TAS with filariasis test strips (FTS). Districts that have differing levels of risk within them, such as Banke, should split their implementation unit (IU) into two or more EUs to implement pre-TAS in each.
5. Ask WHO to provide support for a cross-border meeting to coordinate LF elimination activities with the Indian program.

The above recommendations are being considered in collaboration with EDCD and development of FY18 planned activities.

(Re) Pre-TAS

In FY18, EDCD plans to conduct (re) pre-TAS with FTS in 10 districts, which will have completed 7 to 10 rounds of MDA by March 2018. The districts are Kapilvastu, Parbat, Baglung, lamjung, Dhankuta, Ilam, Jhapa, Morang, Panchthar, and Bardiya. EDCD has requested that ENVISION fund the planned surveys in all 10 districts.

TAS

Fourteen districts (Darchula, Baitadi, Bhajang, Bajura, Achham, Doti, Dadeldhura, Kailali, Kanchanpur, Dailekh, Udayapur, Bhojpur, Banke, and Dang) will have completed six to eight rounds of MDA by March 2018. EDCD will conduct TAS-I in these 14 districts, following (re)-pre TAS with FTS in 4 districts (Udayapur, Bhojpur, Banke, and Dang), and the remaining 10 districts, which completed their pre-TAS in FY17. Based on the SEARO RPRG meeting recommendations, some of the districts slated for (re) pre-TAS will split their IU into two or more EUs to implement the surveys scheduled for August–September 2018.

Depending on the outcome of the planned pre-TAS and TAS surveys in September 2017, Nepal might be able to stop treatment in an additional 14 districts. In that case, a total of 37 districts, 61% of all endemic districts, will have stopped MDA by the end of FY17.

Morbidity Management

The GoN has been implementing lymphedema management activities and hydrocele surgeries since FY15. Morbidity management activities have been initiated in the most affected villages based on reporting from the DPHOs during the MDA campaign. In FY15, 38 of the 41 districts where LF MDA was conducted reported 10,354 cases of either lymphedema or hydrocele. Central, zonal, and district hospitals, and regional health directorates, in coordination with the DPHOs in the region, are performing

hydrocele surgeries. In FY16, 3,165 hydrocele surgeries were conducted at government hospitals. In FY17, the MoH allocated sufficient funding, including some funding received from CNTD, to perform 7,100 surgeries for hydrocele; of this approximately 2,500 surgeries have already been completed. The GoN has planned 8,000 hydrocele surgeries in FY18. The funding from GoN and CNTD covers all costs related to surgeries. Doctors performing surgeries are trained by GoN, and there is a referral system from communities to designated hospitals to treat suspected cases. This commitment and budget allocation for surgery demonstrates the GoN's leadership role in addressing LF morbidity management using the existing health system. In FY16, EDCD, with CNTD funding, conducted morbidity mapping in two districts (Dhading and Kanchanpur). Results show 3,000 hydrocele and 800 lymphedema cases in Kanchanpur and 1,400 hydrocele and 800 lymphedema cases in Dhading. In FY17, EDCD conducted training on morbidity management and mapping in two districts (Okhaldhunga and Saptari). The GoN is also planning to fund similar activities in seven districts (Dang, Baitadi, Gorkha, Lamjung, Nawalparasi, Palpa, and Panchthar) in FY18.

b) Trachoma

The MoH continues to outsource all eye-care services to networks of local NGOs that operate eye hospitals and clinics. The NTP is housed within NNJS, a local NGO with a network of eye hospitals in all five regions of the country. The NTP receives oversight from the MoH, but operates semi-independently and has been implementing trachoma control activities since 2002. Nepal's goal is to achieve the elimination of blinding trachoma as a public health problem by 2017 using the SAFE (Surgery–Antibiotics–Facial cleanliness–Environmental improvements) strategy.

In FY14, NTP completed all planned MDA activities, and all impact surveys were completed by 2015. All 20 districts had trichomatous follicles (TF) prevalence of <5%, confirmed by impact surveys. In FY15, NTP completed pre-validation surveillance activities in 10 out of 20 endemic districts showing TF prevalence <5% and in 8 (Dailekh, Rasuwa, Doti, Bara, Parsa, Banke, Rolpa, and Bardiya) of these TT prevalence was <1 case per 1,000 people. NTP referred all cases of TT found during the surveys to the closest eye hospital (there is a network of 17 eye hospitals in the country, and all perform TT surgery) for trichiasis surgery. In FY16, NTP completed pre-validation trachoma surveillance surveys (TSS) in 8 of the remaining 10 districts. **The final two districts, Achham and Baitadi, also passed their surveillance surveys in June 2017.** For the first time, the surveillance surveys were conducted using the Tropical Data system [a WHO-led initiative] provides an end-to-end epidemiological survey support service – from planning and protocol development to training, data processing, health ministry review and approval, and through to application of the survey outputs – to assist national neglected tropical disease programs] that builds on the Global Trachoma Mapping Project (GTMP) platform to support planning, implementation, and surveillance. ENVISION supported the training of the graders and recorders using Tropical Data.

ENVISION supported NTP/NNJS to complete all treatment, impact surveys, and surveillance surveys in all 20 endemic districts, and has completed drafting of the dossier for informal review by WHO. A national trachoma dossier orientation was organized for all stakeholders engaged in eye care, including high level officials from MoH. The orientation initiated dossier preparation and helped establish a timeline for the dossier's completion and subsequent submission. However, after the informal review of the draft dossier, the WHO team advised it was not yet ready for formal submission to the WHO dossier review group. To ensure the dossier contains a complete record of all relevant trachoma information, the WHO team recommended that TT-only surveys be undertaken in 4 districts (Jajarkot, Siraha, Gorkha, and Dhanusa) where TT in adults aged 15+ years was >0.2% at baseline. Following discussion with WHO, the two larger districts, Dhanusa and Siraha, will be split into two EUs each due to population size;

therefore a total of six EUs will be surveyed. When surveyed at baseline these districts were found to have TF prevalence <5% and thus were not eligible for impact or surveillance surveys. The 4 districts have already cleared their TT backlog based on data presented in the dossier. Once these final six surveys are completed the dossier will be ready for final submission. The proposed surveys will be supported by the ENVISION project and are scheduled to be conducted in December following Nepal's election so that the dossier can be submitted to WHO in Q2 of FY18.

NNJS provides TT surgery through its network of eye hospitals. During the remapping surveys in FY13 and FY14 and surveillance surveys in FY15 and FY16, NTP referred TT cases to NNJS hospitals and primary eye-care centers. Evidence indicates that the numbers of TT cases have decreased significantly, and the TT backlog was recalculated based on recent impact and remapping surveys. NTP has found it difficult to identify TT patients unknown to the healthcare system, and at Nepali hospitals, 75% of the TT surgeries are performed on Indian patients crossing the border. After the methodology for TT-only surveys has been finalized by WHO, the NTP would like to conduct surveys in formerly endemic districts, so as to determine the true burden of TT. The NTP recognizes that identifying TT cases is an extremely important activity toward reaching its ultimate intervention goal for elimination. NTP plans to train health staff and community volunteers to identify the remaining cases and refer them for treatment. Funding for TT surgeries is provided through the MoH, WHO, and NNJS.

Since 2009, USAID funding has assisted NTP in conducting trachoma MDA in 4 districts, mapping in 8 districts, remapping in 23 districts, impact surveys in 13 districts, and surveillance surveys in 20 districts. This support included sending three ophthalmic assistants to attend GTMP training and the training of survey graders and enumerators involved in the trachoma surveys. RTI also collaborated with Johns Hopkins University in FY15 to train graders to ensure high-quality training and the subsequent skills of graders, and to conduct research on new diagnostic methods for surveillance.

c) Soil-Transmitted Helminths

USAID support for Nepal's NTD programs began in 2009. ENVISION support for the STH program includes funding for the STH sentinel site surveys to estimate prevalence of STH; a national STH survey; STH MDA through LF treatment; training of health workers, resource personnel of district education offices, and school teachers in selected districts; and printing of training manuals and reporting forms for school deworming. Also, STH sentinel site surveys have been conducted in 5 districts, a national STH prevalence survey was conducted in 25 EUs, and training on deworming was provided to health workers, district education resource persons, and school teachers in 13 districts.

All 75 districts in Nepal are considered endemic for STH, based on district-level studies carried out in the 1990s and 2000s. The NTD control program aims to control STH in SAC through biannual treatment with ALB to reduce the intensity of infection and prevent infected individuals from developing morbidity. The CHD implements STH control activities for pre-school-aged children (PSAC) and SAC. Pregnant women are treated by the Family Health Division under the safe motherhood program. CHD collaborates with the MoE to conduct school-based deworming, as a major sub-activity of the School Health and Nutrition Program, targeting 6.1 million SAC annually. In 2012, the program achieved national coverage for public school children in grades 1–10. In 2013, the program was rolled out to include children in private schools in the same grades.

In FY14–FY15, at the request of CHD, RTI funded a local NGO to conduct a national STH prevalence survey in SAC. The survey was conducted after at least 2–3 rounds of MDA and showed that results were different to baseline. The outcome of the survey, however, did not result in any immediate change to the national treatment strategy. The national prevalence survey was powered to both the region and

homogeneous ecological zone level. The results indicated that national STH prevalence is 20.7%, with a disease-specific prevalence of 14.6% for roundworms, 4.7% for hookworms, and 5.0% for Trichuris. The highest prevalence of STH was found in the Mid-Western Development Region (27.7%), followed by the Western Development Region (26.5%). In 2015, a complementary survey to determine the prevalence of STH among PSAC and women of child-bearing age was conducted with funding from the MoH, United Nations Children’s Fund, and the US Centers for Disease Control. The results of this survey may be available in late 2017, and the MoH will use the results of both surveys to revise its existing deworming policy in line with WHO recommendations in late 2017.

STH MDA is coordinated with the LF MDA where co-endemic. Where treatment against LF is ongoing, one round of MDA is conducted with DEC+ALB. Treatment of PSAC and pregnant women for STH is implemented with support from other funders. ENVISION does not provide assistance to those distributions, even though they are occurring in the same districts where the project supports community-based LF/STH treatments. As the LF program has begun scaling down, the government-funded STH MDA has taken over providing deworming through a school-based platform. EDCD shares the information about districts where LF MDA has stopped with the CHD, and based on this information, the government-funded STH MDA resumes its SAC deworming program as usual, e.g., twice a year under the school health program.

3) Snapshot of NTD Status in Country

Table 2: Snapshot of the expected status of the NTD program in Nepal as of September 30, 2017

		Columns C+D+E=B for each disease			Columns F+G+H=C for each disease*				
		MAPPING GAP DETERMINATION			MDA GAP DETERMINATION		MDA ACHIEVEMENT	DSA NEEDS	
A	B	C	D	E	F		G	H	I
Disease	Total No. of Districts in COUNTRY	No. of districts classified as endemic	No. of districts classified as non-endemic	No. of districts in need of initial mapping	No. of districts receiving MDA as of 09/30/17		No. of districts expected to be in need of MDA at any level: MDA not yet started, or has prematurely stopped as of 09/30/17	Expected no. of districts where criteria for stopping district-level MDA have been met as of 09/30/17	No. of districts requiring DSA as of 09/30/17
					USAID-Funded	Others			
Lymphatic filariasis	75	61	14	0	13	17	0	37	Pre-TAS: 10 TAS: 14
Onchocerciasis		0	75	N/A	N/A	N/A	N/A	N/A	N/A
Schistosomiasis		0	75	N/A	N/A	N/A	N/A	N/A	N/A
Soil-transmitted helminths		75	0	0	13	62	0	0	0
Trachoma		20	55	0	0	0	0	0	20

*For LF, columns F+G+H = 67 while C = 61. The additional 6 districts are conducting TAS1 in FY17 (Lalitpur, Sunsari, Terhathum, Jajarkot, Surkhet, Myagdi) and are expected to have met the stopping MDA criteria by September 30, 2017

PLANNED ACTIVITIES

1) NTD Program Capacity Strengthening

a) Capacity Strengthening Approach

Capacity Strengthening Goal

The goal of FY18 capacity strengthening activities is to continue to strengthen program management capacity to respond to emerging challenges of the LF program and to implement high-quality M&E activities and document achievements to meet the goals established for the elimination of trachoma and LF and the control of STH.

Capacity Strengthening Strategy

- i) DSA Implementation: As part of efforts to build a strong M&E culture and skillsets, ENVISION will continue to strengthen the disease-specific assessment (DSA) implementation to ensure the quality of surveys is maintained from the design through reporting stages. RTI/ENVISION will continue to provide the required technical support for DSAs through monitoring and supportive supervision.
- ii) Monitoring and Supervision: Using the TAS supervision checklists, RTI/ENVISION will continue to build monitoring and supervision skills to ensure the implementation of quality DSAs and MDA. The objective of this strategy is to enhance performance observation, improve standards and quality, follow-up on issues, and use the feedback for performance improvement, mentoring, and training.
- iii) NTD Program Management: RTI/ENVISION will identify program management priorities for the successful implementation of the program, improving the quality of reporting, and increasing the use of data for decision making (data action planning guide).

b) Capacity Strengthening Interventions

Intervention 1: Manuscript Development. In FY17, the RTI/ENVISION team and the key EDCD staff were trained in principles of identifying research topics for publication, data analysis, and the process of writing an abstract for publication. Proposed topics for abstracts included TAS failures, social mobilization activities to improve coverage and compliance, country ownership, and progress towards trachoma elimination. As part of this, a number of potential research topics were identified for development for publication. In FY18, the process to build the capacity of the team to document programmatic successes and challenges will continue.

Intervention 2: South-South Cooperation. The RTI/ENVISION Nepal team and the IMA/ENVISION Tanzania team will continue to collaborate in FY18 to identify abstracts for publication and implementing DSAs using mobile phones for data capture.

Intervention 3: NTD Toolbox Orientation for National NTD Staff. In FY17, RTI/ENVISION used the ENVISION web NTD Toolbox as a key resource to build the capacity of the national NTD program. The NTD Toolbox, which can be found on the ENVISION website (<http://www.ntdenvision.org/toolbox>), is a user-friendly one-stop shop for a variety of print, video, and web-based resources about the four phases of NTD programs: planning, management, M&E, and assessment. In FY18, RTI/ENVISION will promote this resource within the national NTD network as one of the vehicles for capacity strengthening.

Intervention 4: TAS Refresher Training. In FY17, CDC through a cross-portfolio request, supported a national TAS training that resulted in the training of key personnel from the EDCD/MoH and VBDRTC and selected public health officers from LF endemic districts. The proposed TAS refresher training will be aimed at refreshing the skills of VBDRTC staff and reviewing their experiences and lessons learned. The proposed activity will be facilitated by CDC (see *Cross-Portfolio Requests for Support*). This approach is expected to sustain the capacity of the MoHs to implement and conduct quality surveys and surveillance.

Table 3: Project assistance for capacity strengthening

Project assistance area	Capacity strengthening interventions/activities	How these activities will help to correct needs identified in situation above
a. Strategic Planning	Regional and district planning meetings	To improve planning and MDA coverage and compliance
b. NTD Secretariat	Coordination of NTD stakeholders and advocacy with MoH and political authorities for increased resources	Improve capacity and coordination of NTD activities at the MoH
c. Building Advocacy for a Sustainable National NTD Program	Advocate for NTDs to be included and prioritized in the national implementation plan and budget for the new federal system of governance	Establish a solid foundation for sustainable funding for NTDs within the new federal structure of governance
e. MDA Coverage	Targeted community MDA planning and implementation	Response to communities identified to be resistant to LF MDA and those experiencing TAS failures
f. Social Mobilization to Enable NTD Program Activities	Engage experienced local NGO with behavior change communication expertise to lead social mobilization efforts in communities identified to be resistant to LF MDA and compliance	To increase MDA coverage and compliance
g. Training		
h. Drug Supply and Commodity Management and Procurement	Monitor the national MDA drug quantification and the drug procurement process to flag potential delivery delays Timely submission of JRSM	To mitigate potential delays of planned MDA
i. Supervision for MDA	Conduct supportive supervision in LF endemic districts supported with GoN funding	Standardize the quality of MDA across all the districts of Nepal irrespective of funding source
j. M&E	Enhance the ownership, management, and use of integrated NTD data base by EDCD/MoH	Increase availability of NTD data for program planning and management

Monitoring Capacity Strengthening

ENVISION staff will continue to meet with EDCD and NNJS on a monthly basis to discuss progress of capacity strengthening activities and needs in key technical, managerial, financial, and operational areas. Other meetings described under Strategic Planning and Advocacy will also serve as opportunities for RTI/ENVISION and the EDCD to more broadly discuss capacity strengthening needs, opportunities, and progress.

ENVISION will ensure an effective dialogue through meetings and phone calls with the EDCD/MoH and all stakeholders on issues relating to identifying NTD capacity gaps, opportunities, and priorities. This will lead to awareness of establishing resource mobilization objectives and priorities among all the stakeholders.

Table 4: Measuring progress of capacity strengthening

Activities	Indicator
Manuscript development & south-south cooperation	Number of research topics identified and abstracts developed for publication
National refresher TAS training	Number of trainees whose knowledge has been improved in TAS methodology and implementation after pre- and post-test
NTD Toolbox orientation for national NTD staff	Number of meetings/workshops NTD Toolbox was showcased for capacity building

2) Project Assistance

Through RTI, USAID provides funding and technical support to the LF, STH, and trachoma programs. In FY18, program activities will include funding for annual LF MDA in 11 districts with DEC+ALB, pre-TAS, and TAS surveys; organizing central and district level meetings for planning and review of program activities; deworming of SAC during LF MDA in 11 districts; advocacy; capacity strengthening; and providing technical assistance to the continuous use of the WHO integrated NTD database.

The activities aim at achieving the following priorities as set by USAID for FY18:

- Maintaining high quality MDA with appropriate coverage
- Strengthening M&E capacity
- Documenting success
- Reinforcing capacity building

a) Strategic Planning

In FY18, RTI will provide financial and technical support to EDCD to implement the following related LF MDA planning activities.

Activity 1: Regional MDA Planning Meetings

RTI/ENVISION will provide funding for four regional planning meetings in five regions, an important pre-MDA planning activity for the national program. EDCD, in partnership with RTI ENVISION staff, facilitates the regional meetings. The regional MDA planning meetings are designed to engage and mobilize key regional stakeholders to promote the successful implementation of upcoming LF MDAs. In these meetings, progress on recommendations from previous regional review meetings is discussed; discussions focus on developing district- and community-specific strategies for increasing coverage and compliance. In FY18, RTI/ENVISION in consultation with EDCD will use these platforms to advocate the importance of NTD activities and how they should be prioritized for funding in the planning and rollout of the new federal governance system.

Activity 2: Regional Annual Review Meeting

RTI/ENVISION will provide support for four regional review meetings in five regions after MDA. This is an important process improvement activity for LF/STH MDA. These meetings take place at the regional level following MDA and are facilitated by EDCD and the RTI/ENVISION team. The meetings review MDA activities and discuss lessons learned to inform plans for future campaigns in line with EDCD and RTI/ENVISION priorities. During the meetings, preliminary MDA coverage results, challenges, and resource management issues are discussed. The district coverage data received through ENVISION and EDCD are presented for discussion. In FY18, RTI/ENVISION will build the capacity of DPHOs to use the NTD data action planning tool to lead the review meetings.

Activity 3: District-Level Orientation

RTI/ENVISION will fund LF MDA planning meetings in 11 districts. At these meetings, DPHO staff members will present the results from the previous year's MDA, and successes and challenges, and will outline plans with improvement actions for the upcoming MDA. Based on the information shared, the DPHO team will discuss and develop a district MDA implementation plan for upcoming treatment. This plan will include social mobilization, MDA logistics, specific actions to address any logistical and operational challenges, M&E, supervision, serious adverse event (SAE) management, and drug supply management plans. In FY18, attention will focus on identifying additional ways to reach specific targeted communities that experienced low MDA participation. In addition, RTI/ENVISION will promote the use of the NTD data action guide as a means to analyze sub-district level data to identify priority areas for MDA planning efforts and will facilitate discussion on improving MDA coverage and compliance. Recommendations from the DQA and the changes made to improve recording and reporting will also be discussed. RTI/ENVISION staff, in coordination with EDCD and WHO technical staff, will attend all the district planning meetings in two of the ENVISION-supported priority LF districts of Banke and Bardiya.

Activity 4: Central Level Sensitization Meetings

RTI/ENVISION will directly fund two sensitization meeting for media houses, journalists, and health professionals. These interaction meetings will be organized by EDCD at the central level. The purpose of these meetings is to continue to sensitize journalists, media houses, and other health professionals regarding the objective of LF MDA campaigns, provide briefing materials, and answer questions about the NTDs and safety of the drugs (DEC + ALB). During these fora, EDCD/MoH will seek support from these professional groups to ensure successful implementation of LF MDA. Clear communication channels are also established and shared with media houses and journalists to seek clarification on any misinformation or rumors.

Activity 5: District-Level Coordination Meeting with Stakeholders—VDC, Ward, and Municipal Level

In FY18, RTI will provide funding to DPHOs in 11 districts to organize district-level sensitization and awareness meetings. As part of the pre-MDA planning process, district public health officers are expected to mobilize stakeholders in advance of MDA. District stakeholders, including members of civil society organizations, will be invited to the district headquarters to participate in the events. These district-level coordination meetings will provide opportunities to orient stakeholders on the status of LF in the district, the need for MDA, and how they can support the campaigns. Ultimately, the goals of these sensitization meetings are to increase the involvement of stakeholders in developing solutions to increase MDA coverage and to address concerns and misinformation.

Activity 6: District-Level Journalist Interaction Meetings

Positive media attention during LF MDA, providing correct information and clear messages to the population, has been identified as crucial in building confidence in the safety of drugs. The national NTD

program has found that engaging with the media as partners in the planning and implementation of MDA at the central and local levels has improved the dissemination of accurate news. The DPHO will invite local print and audio-visual journalists to a one-day sensitization meeting to discuss the purpose of the LF campaign, achievements, and challenges; provide briefing materials; and answer questions about the disease. RTI/ENVISION and EDCD staff will attend some of these events to answer questions and help with the sensitization.

Activity 7: Annual Work Plan Meeting

In FY18, RTI/ENVISION will fund a three-day work planning meeting for staff. The objective of this meeting is to review the progress of planned activities, discuss implementation challenges and FY19 USAID priorities, and to develop a cohesive strategy to support the priorities of the national NTD program in the upcoming year. The strategy of setting a few days aside out of the busy daily work to spend time with the team and involve them in the planning and the development of an implementation strategy is expected to enhance team work, interpersonal relationships, and ownership of ideas and to contribute to the overall management and smooth implementation of the country program.

b) NTD Secretariat

The NTD Secretariat, established within the PPICD in 2013, plays an important role in fostering coordination among the MoH divisions implementing LF, STH, and trachoma-related activities, and with the Department of Education (DoE) and DWSS. This coordination includes high-level support for planning and budgeting processes to all divisions and stakeholders implementing NTD activities. For example, the Secretariat works with all divisions to review and present their NTD-specific budget activities to the PPICD chief. The Secretariat also facilitates strategic and policy dialogue among NTD stakeholders by coordinating regular technical and oversight meetings for all NTD program offices. RTI/ENVISION will fund costs related to running the NTD Secretariat including communications and supplies. With the history of high staff turnover at the MoH, the NTD coordinator has helped sustained the interest of the NTD program within the Ministry.

Activity 1: Support for Assistant NTD Coordinator

In FY18, RTI/ENVISION will continue to fund the consultant seconded to the MoH as an assistant NTD coordinator. The assistant NTD coordinator will provide high-level support for NTD planning and budgeting to all divisions and stakeholders implementing NTD activities. He will facilitate strategic and policy dialogue among key NTD stakeholders by coordinating regular technical and oversight meetings. The role of the coordinator will be crucial in FY18 as the GoN begins to implement the new federal system of governance, which is expected to fundamentally change the current management system of the health delivery and governance system. Leveraging on the NTD coordinator within the MoH/PPICD to guide and advocate for NTD activities to be prioritized within the new system will be a priority.

c) Building Advocacy for a Sustainable National NTD Program

Activity 1: Technical Working Group Meetings

The TWG meetings are the only platform that coordinates the three independent NTD programs (LF, trachoma, and STH). RTI/ENVISION will fund three TWG meetings, attended by the ENVISION Resident Program Advisor. These meetings will provide oversight for the national NTD programs, and RTI will report on the progress of planned ENVISION-funded activities and provide technical expertise. In FY18 RTI will continue to advocate and sensitize TWG members to find innovative ways to increase MDA coverage and address treatment compliance issues for LF-endemic districts, those that have recently

failed pre-TAS, and those that may be at risk of failing. ENVISION will work with the TWG to coordinate the implementation of activities recommended at the 2017 SEARO RPRG meeting and by WHO. The need for GoN to increase funding for NTD activities post-ENVISION will also be a key agenda item to be discussed during the FY18 TWG meetings. RTI/ENVISION's support for the TWG meeting will include venue rental, transportation, lodging and per diem for each meeting.

Activity 2: Sensitization for New Federal Governance System

In FY18, as part of the implementation of the new federal system, RTI/ENVISION will coordinate with EDCD to sensitize and advocate with the leadership of the seven provincial governments to prioritize NTDs in the new budgeting process. The RTI/ENVISION team will also sensitize local and district coordination committees in all LF-endemic districts. This is an opportune time to provide sensitization and advocacy, as these systems are in their formation stage and will help build a strong foundation to sustain NTD activities within the new federal governance structure. RTI/ENVISION's support will include transportation, lodging, and per diem for EDCD staff.

Activity 3: National Stakeholder Meeting (Trachoma National Level Dissemination)

ENVISION will fund the NTP to organize a national-level dissemination meeting to celebrate the achievements of the goal to eliminate trachoma from Nepal and the successful submission of the dossier to the WHO trachoma regional dossier review group. The national dissemination meeting will be headed by senior leadership of the GoN, and attended by MoH; international development organizations such as the World Bank, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ; the German international development agency), Danida, Embassy of China, etc.; district health officials from former endemic districts; medical directors of district eye hospitals and organizations; leading private-sector organizations, and key water, sanitation, and hygiene (WASH) stakeholders. The objective of the meeting is to disseminate the successful elimination of trachoma in Nepal, discuss future activities, and provide an opportunity to engage and mobilize new external and domestic partners and resources for WASH activities to sustain the gains of trachoma elimination. As part of sustaining the trachoma elimination efforts, participants will also work to identify and manage future incidence of TT and to determine how NNJS/NTP plan to integrate surveillance systems using the national health management information system (HMIS) and the network of hospitals in the 10 districts bordering India, which are suspected to be at high risk of trachoma incidence due to cross-border transmission. The dissemination meeting will also be an opportunity to share the progress and challenges of the LF program and to solicit support for additional partnership and resources to sustain progress towards elimination. RTI/ENVISION's support will include conference room, transportation, lodging, and per diem for selected participants.

d) Mapping

LF: Sixty-three districts have already been mapped; 61 districts are endemic and 2 are non-endemic. Twelve districts have never been mapped due to their high altitude and the lack of evidence of vector transmission.

Trachoma: All districts have been mapped and the remapping of the four remaining FY16 districts (Jumla, Kalikot, Mugu, and Humla) has been completed. Results shows that no MDA is required in these districts as TF prevalence is below 5%. No further mapping is needed.

STH: ENVISION supported a national prevalence survey in FY13–FY14, and no further mapping is required. The results indicated that the far-Western Development Region of Nepal has the lowest estimated prevalence for all three infections (Ascaris, Trichuris, hookworm). Among all the infections,

Trichuris infection has the lowest prevalence of 1.4%. The mid-Western Development Region has the highest prevalence of 27.7% for at least one infection. Among all the infections, Ascaris infection has the highest prevalence of 22.7% in the mid-Western Development Region. The Western Development Region has the second highest prevalence (21.9%) of Ascaris infection.

e) MDA Coverage

Activity 1: MDA Census

RTI/ENVISION will fund an MDA census. Prior to LF MDA each FCHV will visit every household in her designated area and update her register. The names and ages of householders are updated to ensure eligibility for taking drugs during LF MDA. The census register is also used for planning drug requirements.

Activity 2: MDA & SAE Management

Nepal has had cases of SAEs in the past and as a result has developed a strong system to address any reported SAEs. If an SAE occurs during LF MDA, the DPHO responds through a rapid response team of physicians and health workers in coordination with local hospitals. The DPHO will also report any suspected or confirmed SAE case to EDCD, which then reports it to the WHO country office and to RTI/ENVISION.

Activity 3: Forms, Checklist, and District Profile Publication

RTI/ENVISION will fund each district to reprint reporting and recording forms as well as checklists for monitoring and supervision. At the end of the program, districts will prepare a district profile incorporating LF program history and data and will publish this profile and share it with stakeholders.

f) Social Mobilization to Enable NTD Program Activities

Activity 1: Targeted social mobilization in two low-performing districts (Banke, Bardiya)

In FY17, Banke was identified as a priority ENVISION-supported district for increased MDA coverage and improved drug compliance. To this end, activities supported will include targeted sensitization of different groups and religious leaders in communities where compliance was suspected to be low in past MDA. Feedback received from DPHO and results from specific communities have shown that the targeted approach has the potential to improve compliance and MDA coverage issues. In FY18, given the low performance of the two districts, and per the recommendation of the DPHO and community leaders, ENVISION plans to engage a local organization with experience and in-depth understanding of the culture and norms of the communities to lead the implementation of tailored social mobilization activities in Banke and Bardiya districts. The local organization will work in consultation with the DPHOs to develop messages and activities to influence beliefs and practices of the identified communities. The outcome of the approach will be replicated in other districts with similar challenges as appropriate.

Activity 2: Television Broadcasts

As confirmed by FY14 and FY15 coverage surveys, depending on the geographical area (rural and urban) mass media including radio (27.4%) and TV (14.5%) are the most effective sources of MDA awareness. In urban areas, the national and local TV channels are considered very reliable in providing information on LF MDA. The media plays an important role in communicating the LF MDA campaign schedule. RTI/ENVISION will fund public service announcements about LF MDA for national television broadcast.

Messages broadcast will include information to the public about the date and location of MDA, benefits of taking the drugs, and the safety of DEC+ALB.

Activity 3: Community FM Radio for LF MDA Awareness Generation

RTI will provide funding for the 11 DPHOs to conduct MDA awareness campaigns using local FM radio stations. The local radio campaigns are expected to persuade key beneficiary audiences to participate in MDA, through reminding them of the importance of treatment. The local FM radio stations are an important channel to reach beneficiary populations and provide information about MDA and NTDs. RTI's support will include the broadcast and publishing of MDA messages on community FM radio and in local newspapers.

Activity 4: Newspaper Publishing

It is a legal requirement in Nepal to publicize all upcoming MDA and provide information on the safety of medications in the national newspaper. Information regarding the MDA and the government's commitment to the safety of the drugs (ALB and DEC) is published in the two GoN-owned national newspapers in Nepali and in English (*Gorkhapatra* and *The Rising Nepal*). At the request of EDCD, RTI/ENVISION will fund LF MDA related advertisements in the two national newspapers to inform the general population about the date and locations of upcoming LF MDA, the safety of DEC + ALB, and their importance.

Activity 5: Bags for Community Drug Distributors

As the key frontline workers for the NTD program, FCHVs are the most trusted source of information for MDA, confirmed by analysis of coverage surveys conducted in FY14 and FY15. In FY18, RTI will support the procurement of MDA-branded bags for each FCHV in the 11 ENVISION-supported districts to use while distributing medicines. These bags clearly identify the FCHVs as working for the MDA program and as official distributors of medicines. The purpose is to increase visibility/program branding and provide motivation for FCHVs.

Activity 6: Production of Banners for LF MDA

Social mobilization activities enabled by RTI support to EDCD are an integral part of MDA pre-implementation activities. In FY18, RTI will support social mobilization for LF MDA through several activities (TV, radio broadcasts, miking, community sensitization, etc.), including the production of banners for 11 districts scheduled for LF MDA. The banners will be distributed to all the health posts in the 11 districts. They will be displayed at health facilities and other central points within the VDC, to ensure that community members are aware of the date and location of MDA.

Activity 7: Community-Level Mobilization

In the 11 districts supported by ENVISION, local health workers and FCHVs will display MDA banners and hold meetings with local community leaders and school teachers to inform them of the MDA a few weeks before it is scheduled to occur. RTI's support will include per diem, transportation, and refreshment costs for meeting participants.

Activity 8: Miking

One of the best communication strategies for providing information to rural communities is based on the idea of integration with the culture of the target community. As literacy in rural areas is low, "miking" (the use of trucks with microphones) is used as a channel to inform communities about LF MDA dates and venues. This activity has successfully increased participation in LF MDA in previous years. RTI's

support will include one week of miking (driver per diem and fuel) prior to MDA in 11 ENVISION supported districts.

Table 5: Social mobilization/communication activities and materials checklist for NTD work planning

Category	Key messages	Target population	IEC strategy (materials, medium, activity etc.)	Where/when will they be distributed	Frequency	Is there an indicator/mechanism to track this material/activity? If yes, what?
MDA Participation	MDA will take place at all wards of 11 districts for 3 days	Community members	Posters /Banners	Hung in all health facilities and at center points/schools 1 week before MDA	Once	Percentage of audience who recall seeing the poster and message—in coverage survey
	The drugs provided are free and safe, who should and should not take the drugs	Community members	Radio, TV, newspaper Radio, TV, newspaper	Local station, 2 weeks in advance of LF MDA campaign	Messages play 7 times per week during the hours of 7am – 10 pm; message printed 1 time in newspapers	Number of times messages aired on radio during reference period—radio broadcast reports
	Some side effects are normal and they will pass					Percentage of audience members who recall message—coverage survey
	Information about MDA date and location	Community members	Megaphone (Miking)	2 weeks in advance of LF MDA campaign	Daily	Percentage of audience who recall hearing MDA message—in coverage survey
Disease Prevention	Taking NTD drugs for 6 years will prevent diseases	Drug distributors and community members	Radio, TV, newspaper	Local station, 2 weeks in advance of LF MDA campaign	Messages play 7 times per week during the hours of 7am – 10 pm	Radio, TV, newspaper
Other	Promoting visibility of NTD Program	Community members	Posters/ Banners	Hung in all health facilities and at center points/	Once	Percentage of audience who recall seeing the poster and

Category	Key messages	Target population	IEC strategy (materials, medium, activity etc.)	Where/when will they be distributed	Frequency	Is there an indicator/mechanism to track this material/activity? If yes, what?
				schools 1 week before MDA		message—in coverage survey

g) Training

Activity 1: LF MDA Training of Trainers

One-day district-level training of trainers (ToT) for DPHO staff will be carried out by MoH, WHO, and RTI staff. This will ensure that district trainers have a strong working knowledge of LF, the MDA’s purpose and process, MDA data reporting chain, management of SAEs, and supervisory responsibilities. As part of the FY16 DQA recommendations, RTI/ENVISION will continue to strengthen instruction on recording and reporting during training sessions for CDDs and health personnel. This activity will be conducted at the district-level as a part of LF MDA for district supervisors during district-level orientation and interaction. In turn, these district-level supervisors will train health workers and CDDs. RTI’s support will include venue, per diem, transportation, and refreshment costs for training participants.

Activity 2: LFA MDA Refresher Training for Health Workers and CDDs

A one-day training will be held for health workers and FCHVs participating in the LF MDA to ensure they understand the MDA’s purpose, their role, how to manage SAEs, and how to record information about the MDA. RTI’s support will include venue, per diem, transportation, and refreshment costs for training participants.

Activity 3: National-Level Training/Orientation (Pre TAS and TAS)

The purpose of this activity is to strengthen the M&E capacity and to inform national-level stakeholders and district-level managers about the planned DSAs. The training will enhance the M&E capacity of the EDCD/MoH. RTI/ENVISION will support VBDRTC to organize these national-level events in collaboration with EDCD and WHO to orient/train district managers, focal persons, lab technicians, and representatives from DOE on LF TAS. Participants will be oriented on the use of LF diagnostics, the TAS methodology, and the use of TAS checklist.

Activity 4: Pre-TAS District-Level Orientation

As part of the sensitization and community engagement efforts, the implementing organization contracted to implement the pre-TAS (VBDRTC) is expected to organize an orientation session in all pre-TAS survey districts before the beginning of field surveys. In attendance will be the DPHO, LF focal person, and representatives of stakeholders. Journalists; district supervisors; representatives from the District Development Committee, Women and Children Office, and District Administration Office; and supervisors of various health facilities where the sentinel and spot-check sites are located will also be invited to this event. RTI/ENVISION and representatives from EDCD will also participate in this event to supervise and provide technical support.

Activity 5: TAS 1 District-Level Orientation

As part of the sensitization and community engagement efforts, the implementing organization contracted to implement the TAS 1 (VBDRTC) is expected to organize an orientation session in all survey

districts before the beginning of field surveys. In attendance will be the DPHO, LF focal person, and representatives of stakeholders. Journalists; district supervisors; representatives from the District Development Committee, Women and Children Office, and District Administration Office; and supervisors of various health facilities where the sentinel and spot-check sites are located will also be invited to this event. RTI/ENVISION and representatives from EDCD will also participate in this event to supervise and provide technical support.

Activity 6: Tropical Data Training on TT only Surveys

In FY18, RTI/ENVISION will provide technical assistance to NTP/NNJS to conduct Tropical Data training for the TT-only surveys. The trichiasis surveys training manual for mapping of trichomatous trichiasis will be used for the training; this was developed by the International Coalition for Trachoma Control. The training would be conducted for selected graders and recorders. The surveys were recommended by the informal WHO review team and will be implemented in 4 districts (Jajarkot, Siraha, Gorkha, and Dhanusa) where TT in adults aged 15+ years was >0.2% at baseline. Following discussion with WHO, the two larger districts, Dhanusa and Siraha, will be split into two EUs each due to population size; therefore a total of six EUs will be surveyed. When surveyed at baseline these districts were found to have TF <5% and thus were not eligible for impact or surveillance surveys.

h) Drug and Commodity Supply Management and Procurement

Activity 1: Joint Request for Selected Medicines

EDCD develops the JRSM with technical support from WHO and ENVISION. The MoH uses the WHO JSRM form to request ALB for LF and STH MDA. RTI/ENVISION has been building the capacity of EDCD by closely working with them to produce the required data for the preparation of the JRSM. In FY18, RTI/ENVISION will continue to provide this critical technical oversight and support to EDCD and WHO to ensure the JRSM is completed accurately and submitted to WHO on schedule.

Activity 2: NTD Drug Quantification

Quantification and procurement of DEC is handled by the MoH Logistics Management Division, in consultation with EDCD, and procurements are done on a multi-year basis (every two years). The quantification and forecasting is conducted using population targets in coordination with program districts. RTI/ENVISION provides minimal technical support in preparing the forecast and drug needs for MDA. In FY18, RTI/ENVISION will monitor the quantification and forecasting process to ensure the required quantity of drugs is ordered for on-time delivery.

Activity 3: Procurement of NTD Drugs and Diagnostics

As discussed above, RTI/ENVISION does not procure DEC or ALB for the Nepal NTD program. GoN/MoH procures DEC through a global tender. In FY17, the DEC for all planned MDA was procured through the Indian pharmaceutical company UNICEM. ALB is donated through the WHO donation program. In FY17, the delivery of DEC for MDA was delayed due to political and transportation factors in India. RTI/ENVISION will be actively involved in monitoring the supply chain situation of the drugs to mitigate the risk of late deliveries and stock-outs. With regard to diagnostics, filariasis test strips (FTS) for TAS-1 are donated through WHO. In FY18, it is expected that FTS will be donated for the 14 planned TAS-I surveys. RTI/ENVISION will procure the FTS for all the 10 pre-TAS surveys. WHO is the consignee for FTS procured by RTI and handles customs clearance. Once the diagnostics arrive and are cleared, they are handed over to EDCD for storage in Kathmandu and distributed as needed for surveys.

Activity 4: Warehousing, Transportation, and NTD Drug Distribution

All drugs are stored in the central warehouse in Kathmandu upon arrival in Nepal. All drugs procured for MDA are transported to regional stores for re-distribution to district health stores. The distribution of the drugs to districts and health facilities is based on the drug forecast and the supply plan developed by EDCD to the national warehouse. A buffer stock system is also established within the NTD supply chain system to ensure that in every catchment area, EDCD and the MoH are able to immediately respond to any potential stock-out situation during MDA. District health offices are responsible for transportation and distribution of drugs to health facilities using the supply plan provided by EDCD. In FY18, ENVISION will support 11 districts to transport and deliver ALB and DEC drugs to health facilities, where they will be provided to the FCHVs and CDDs to give to the eligible population in the community for directly observed uptake during the campaign.

Activity 5: Reverse Logistics

At the end of every MDA, the DPHOs work together to arrange reverse logistics. This important activity is managed and funded solely by the MoH and GoN. All unused drugs in the NTD supply chain are collected, documented, and reported to the district health office and EDCD. Any expired medicine is disposed of using GoN and WHO guidelines for medical waste disposal. The efficient inventory system developed for the Nepal health delivery system also encourages each health facility to keep accurate records of all used and un-used drugs after LF MDA. Health facilities may keep some drugs with valid dates for future use, and the remaining drugs are sent back to district health offices for storage.

Activity 6: Waste Management

The GoN has put in place a national pharmaceutical waste management system for the disposal and treatment of expired drugs. As part of the waste treatment plan, each district has a committee of administrators, a financial controller, police representative, and a district health office representative to oversee the collection, documentation, and decision to dispose of expired drugs. Non-toxic materials such as papers and wrappers are destroyed in respective health facilities.

i) Supervision for MDA

Activity 1: LF MDA Supervision (including targeted advocacy activities)

As in previous years, in FY18 RTI will fund central-level staff from MoH/EDCD to carry out supervision of LF MDA. During house-to-house visits the CDDs support each other to ensure quality of MDA and proper recording. Their work is supervised by health facility supervisors. RTI also conducts joint supervision with the MoH and WHO during and after the MDA campaign. Together with the central-level supervision team, the MoH will involve municipality authorities and DPHO staff in supportive supervision during MDA in urban areas. ENVISION also funds district- and village-level supervision in 11 LF MDA districts and will cover district-level planning and review meetings, district-level sensitization meetings, and social mobilization activities, including banners, district, VDC, municipality and ward-level orientation/interactions; training for teachers, health workers, and FCHVs; MDA management and supervision; and drug transport from district level to VDC/municipality level.

j) M&E

Table 6: Planned DSA for FY18 by disease

Disease	Number of endemic districts	Number of districts planned for DSA	Number of <u>Eus</u> planned for DSA (if known)	Type of assessment	Diagnostic method (Indicator: microfilaremia, FTS, etc.)
Lymphatic filariasis	61	10	*Being developed	Pre TAS	FTS
Lymphatic filariasis	61	14	10	TASI	FTS
Trachoma	0	4	6	TT-only surveys	Trachoma grading

*RPRG SEARO recommendation still under consideration and review by EDCC/MOH

Planned Activities for FY18

Activity 1: Pre-TAS

At the request of EDCC/MOH, RTI/ENVISION will support pre-TAS sentinel and spot-check site surveys through VBDRTC in 10 districts; the results will be used to determine which districts can advance to TAS. The 10 surveys will be conducted in Kapilvastu, Parbat, Baglung, lamjung, Dhankuta, Ilam, Jhapa, Morang, Panchthar, and Bardiya. RTI/ENVISION, EDCC/MoH, and WHO staff will supervise these activities, travelling out to each district to visit multiple sites and ensure the surveys are implemented according to WHO standards and checklists. Decisions will be made based on the results of the surveys whether to move on to TAS or to repeat two rounds of MDA.

Activity 2: TAS-1

In FY18, RTI/ENVISION will fund VBDRTC to conduct TAS-I in 14 districts, namely Darchula, Baitadi, Bhajang, Bajura, Achham, Doti, Dadeldhura, Kailali, Kanchanpur, Dailekh, Udayapur, Bhojpur, Banke, and Dang, that will have completed their sixth to eighth rounds of MDA by March 2018. Out of the these 14 districts, 4 (Udayapur, Bhojpur, Banke, and Dang) will be conducting (re)-pre TAS with FTS; the remaining 10 districts completed their pre-TAS in FY17 (Darchula, Baitadi, Bhajang, Bajura, Accham, Doti, Dadeldhura, Kailali, Kanchanpur, Dailekh). EDCC/MoH will be implementing SEARO RPRG meeting recommendations for districts slated for (re) Pre-TAS to split their IU into two or more Eus to implement the surveys scheduled for August–September 2018.

Activity 3: FY17 Remanining Milestones under FY17 TAS 1 and 3

RTI/ENVISION plans to support implementation of all planned FY17 DSAs by the end of August 2017, through VBDRTC. The activities for the remaining milestones in FY18 are field work, data analysis and the preparation of the final survey reports.

Activity 4: TT-Only Surveys

The Nepal draft Trachoma dossier has been submitted and has undergone informal review by WHO after the successful completion of the last remaining two (2) Surveillance Surveys in Baitadi and Accham districts. After the informal review, WHO recommended that the dossier is not yet ready for formal

submission to the WHO dossier review group. WHO recommended that TT-only surveys be undertaken in 4 districts (Jajarkot, Siraha, Gorkha, and Dhanusa) where TT in adults aged 15+ years was >0.2% at baseline. When surveyed at baseline, these districts were found to have TF <5% and thus were not eligible for impact or surveillance surveys. In FY18, RTI/ENVISION will fund NNJS/NTP to carry out the TT only surveys in these four districts. Following discussion with WHO, the two larger districts, Dhanusa and Siraha, will be split into two EUs each due to population size; therefore a total of six EUs will be surveyed.

k) Supervision for M&E and DSAs

In FY18, RTI/ENVISION will strengthen the monitoring and supervision skills of the EDCD/MoH and VBDRTC. As part of the strategy to build the M&E capacity and to improve the quality of planned DSAs conducted by VBDRTC, supervision will aim at promoting joint problem solving, documentation, and quality assurance using the TAS checklists (preparation, supervision, and failure). RTI/ENVISION's expectation is to use the supervision to also build the capacity of VBDRTC, improve data quality and collection, and provide instant feedback to implementers. EDCD/MoH, WHO, and RTI/ENVISION will supervise and monitor LF pre-TAS and TAS being carried out in the districts. During this supervision, RTI/ENVISION will ensure that samples have been chosen as per WHO guidelines and that EDCD survey protocols are properly followed.

Activity 1: Supervision for M&E and DSAs

In FY18, RTI/ENVISION will fund directly from the country budget supervision activities related to the implementation of pre-TAS and TAS 1 planned activities. This will also include all the monitoring and supervision issued to VBDRTC to implement DSAs. During the period of performance, RTI/ENVISION staff will meet with VBDRTC staff, provide technical trainings as necessary, and observe field work using the required checklists and supervisory tools. Implementation issues will be discussed and corrective actions put in place to improve processes. In addition, EDCD/MoH and WHO staff will assist to provide additional supervision as necessary.

APPENDIX 1: Work Plan Timeline

FY18 Activities
Management Support
Office expenses
Running of the office
Project Assistance
Strategic Planning
Regional MDA planning meetings (4 events)
Regional annual review meeting (4 events)
Central-level sensitization meeting (2 events)
Annual work plan meeting
NTD Secretariat
Building Advocacy for Sustainable National NTD Program
Technical working group meeting (3 events)
Sensitization for new federal governance structure (7 events)
MDA Coverage
LF MDA
District level planning and advocacy meetings
District level TOT and refresher training
Health facilities training
District level and community social mobilization activities
Media related activities
Implement MDA
Monitoring and supervision
Social Mobilization to Enable NTD Program Activities
Newspaper notice
Television broadcasts
Supervision for MDA
Supervision of MDA:LF
Supervision of LF MDA targeted advocacy activities
Supervision for MDA
Supervision for monitoring and evaluation and DSAs
Pre TAS (10 districts)
TAS (14 districts)
NTP
National Level Dissemination meeting
TT Only Survey

APPENDIX 2. Table of USAID-supported Regions and Districts in FY18

	Region	Health Districts	Mapping (list disease(s))	Baseline sentinel sites (list disease(s))	MDA					DSA (list type: TAS 2, TSS, etc.)				
					LF	OV	SCH	STH	TRA	LF	OV	SCH	STH	TRA
1	Mid-West	Banke			x					TAS1				
2		Bardiya			x					(re)Pre re-TAS				
3		Dailekh								TAS1				
4		Dang								TAS1				
5	Far-West	Achham			x					TAS1				
6		Doti			x					TAS1				
7		Dadeldhura			x					TAS1				
8		Bajura			x					TAS1				
9		Baitadi			x					TAS1				
10		Bajhang			x					TAS1				
11		Darchula			x					TAS1				
12		Kailali			x					TAS1				
13		Kanchanpur			x					TAS1				
14	West	Kapilvastu								Pre re-TAS				
15		Parbat								Pre re-TAS				
16		Baglung								Pre re-TAS				
17		Lamjung								Pre re-TAS				
18	Eastern	Dhankuta								Pre re-TAS				
19		Ilam								Pre re-TAS				
20		Jhapa								Pre re-TAS				
21		Morang								Pre re-TAS				
22		Panchthar								Pre re-TAS				
23		Bhojpur								TAS1				
24		Udayapur								TAS1				