



## **REPUBLIC OF NAMIBIA**



## Ministry of Health and Social Services

Neglected Tropical Diseases Master Plan

## 2023-2027

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# **Abbreviations and Acronyms**

CHW	Community Health Worker
СМ	Case management
Dra	Dracunculiasis
GDP	Gross Domestic Product
GNP	Gross National Product
GPW 13	Thirteenth General Programme of Work 2019–2023
HAT	Human African Trypanosomiasis
HIS	Health Information System
HPCNA	Health Professionals Council of Namibia
IFMS	Integrated Financial Management System
IRS	Indoor residual spraying
ITN	Insecticide-treated net
IVM	Integrated vector management
Leish	Leishmaniasis
LF	Lymphatic filariasis
MDA	Mass drug administration
MMDP	Morbidity management and disability prevention
MoF	Ministry of Finance
MoHSS	Ministry of Health and Social Services
NIP	National Institute of Pathology
NMP	National Medicines Policy
NTD	Neglected tropical diseases
Oncho	Onchocerciasis
PCT	Preventive chemotherapy
PEST	Political, Economic, Social and Technological Analysis
PHC	Primary Health Care
SBCC	Social and Behaviour Change Communication
SCH	Schistosomiasis
SDGs	Sustainable Development Goals
STG	Standard Treatment Guidelines
STH	Soil-transmitted helminthiasis
SWOT	Strengths, weaknesses, opportunities, and threats
TAS	Transmission Assessment Survey
TIPAC	Tool for Integrated Planning and Costing
TOR	Terms of Reference
TRA	Trachoma
WASH	Water, sanitation and hygiene
WHO	World Health Organization
WHO/AFRO	World Health Organization Regional Office for Africa

# **Key Definitions**

**Control:** Reduction of disease incidence, prevalence, morbidity and/or mortality to a locally acceptable level as a result of deliberate efforts; continued interventions are required to maintain the reduction. Control may or may not be related to global targets set by WHO.

**Elimination (interruption of transmission):** Reduction to zero of the incidence of infection caused by a specific pathogen in a defined geographical area, with minimal risk of reintroduction, as a result of deliberate efforts; continued action to prevent re-establishment of transmission may be required. Documentation of elimination of transmission is called verification.

**Elimination as a public health problem:** A term related to both infection and disease, defined by achievement of measurable targets set by WHO in relation to a specific disease. When reached, continued action is required to maintain the targets and/or to advance interruption of transmission. Documentation of elimination as a public health problem is called validation.

**Eradication:** Permanent reduction to zero of the worldwide incidence of infection caused by a specific pathogen, as a result of deliberate efforts, with no risk of reintroduction.

Hygiene: Conditions or practices conducive to maintaining health and preventing disability.

**Integration:** the process by which disease control activities are functionally merged or coordinated within multifunctional health-care delivery.

**Integrated vector management:** A rational decision-making process to optimize the use of resources for vector control.

**Mass drug administration:** Distribution of medicines to the entire population of a given administrative setting (for instance, state, region, province, district, sub district or village), irrespective of the presence of symptoms or infection; however, exclusion criteria may apply. (In this document, the terms mass drug administration and preventive chemotherapy are used interchangeably.)

**Morbidity:** Detectable, measurable clinical consequences of infections and disease that adversely affect the health of individuals. Evidence of morbidity may be overt (such as the presence of blood in the urine, anaemia, chronic pain or fatigue) or subtle (such as stunted growth, impeded school or work performance or increased susceptibility to other diseases).

**Monitoring and evaluation:** Processes for improving performance and measuring results in order to improve management of outputs, outcomes and impact.

**Platform:** Structure through which public health programmes or interventions are delivered.

**Preventive chemotherapy:** Large-scale use of medicines, either alone or in combination, in public health interventions. Mass drug administration is one form of preventive chemotherapy; other forms could be limited to specific population groups such as school-aged children and women of childbearing age. (In this document, the terms preventive chemotherapy and mass drug administration are used interchangeably.)

# Preface

Seven of the WHO-listed NTDs are known to exist in Namibia, namely, Schistosomiasis (SCH), Soil Transmitted Helminths (STH), Leprosy, scabies, rabies, snake bite and trachoma. There are others that are suspected but little is known about them from available data as well as published and grey literature. Very few of these have been mapped in the country and interventions commenced. The NTD Strategic document provides guidance and plans for implementing programme activities in an integrated and holistic manner and ensuring that the multiplicity of stakeholders operating within this landscape is coordinated. This is particularly needful given the diverse nature of neglected tropical diseases and their control and elimination processes which require a multi-sectoral response. The document provides direction for financial sustainability especially with the classification of Namibia as a middle-income country though one with the most skewed incomes per capita globally.

Given the development of the 2030 NTD Global Roadmap for the elimination of NTDs, it was necessary that the country's NTD Master Plan aligns with the global document which had been produced through a process involving a diverse group of stakeholders.

This Master Plan has been developed based on extensive situation analysis, desk review, and several in-country consultative meetings with all critical stakeholders. As required by the 2030 NTD Roadmap, this document has emphasized three fundamental shifts in the approach to tackling NTDs. The three fundamental shifts are: moving away from siloed, disease-specific programmes by intensifying cross-cutting approaches and coordination with other Ministry of Health programmes as well as other stakeholders, mainstreaming NTD programmes into national health systems, and changing operating models and culture to facilitate greater incountry ownership.

This approach is expected to increase the impact of accountability centred on the needs of people and communities. It is expected that this Master Plan will ensure judicious use of time and resources for maximum impact and that the country will achieve elimination of some of the neglected tropical diseases in the country within the lifetime of this plan.

# Acknowledgements

This document has been developed through an extensive consultation process with inputs being contributed by a wide variety of stakeholders within and outside the country. This is in line with the requirement as reflected in the master plan guide and the Global NTD Roadmap (2021 – 2030)

Key stakeholders who have contributed to this document ranged from representatives from partner-organizations, related government ministries and agencies, and the Ministry of Health and Social Services (MoHSS). Inputs have not been limited to stakeholders at the national level but have been received from the sub-national levels. The involvement of this array of contributors to the development of this Master Plan is reflective of our national collective vision towards achieving a nation free of NTDs.

Acknowledgement therefore goes to all the institutions, government agencies, and other stakeholders who had made out time and resources towards the development and finalization of this document.

Very special appreciation goes to the World Health Organization (WHO) for the technical and financial support and as well as other partners who have contributed in other ways to successfully develop this strategic document.

But the development of this important document is but the first step. We also need to join hands collectively to support its implementation. It is only when we are able to implement successfully what have been reflected in this document that we can indeed look forward to a Namibia that is free of Neglected Tropical Diseases.

## **Purpose of Document**

This document is intended to guide NTD programming in Namibia and is in line with the WHO Roadmap 2021 – 2030.

Given the development of the 2030 NTD Global Roadmap for the elimination of NTDs, it is imperative that Namibia like other countries within the WHO African region develops its NTD Master Plan to align with the global document which had been produced through a process involving a diverse group of stakeholders. Consequently, this Master Plan has been designed with that focus, with similar language and structure to ease reference and alignment.

Unique to this current Master Plan, and in line with the 2030 NTD Global Roadmap, is the opportunity for Namibia to re-design its national NTD program and make it fit-for-purpose during the next 5 years to drive progress toward the 2030 goals (See 2021-2030 NTD Global Roadmap, Fig. 25. *Shifts in organizational structures in countries*). This document builds on the foundation and progress made in the implementation of the previous strategic plan and tries to address some of the inherent challenges. Consequently, the current Master Plan seeks to encourage three fundamental shifts in the approach to tackling NTDs:

- > Increase accountability for impact by using impact indicators instead of process indicators;
- Move away from siloed, disease-specific programmes by mainstreaming programmes into national health systems and intensifying cross-cutting approaches centred on the needs of people and communities; and
- Change operating models and culture to facilitate greater ownership of programmes by countries. Shift from externally driven partner and donor funding, to country ownership and financing.

The document is open for inputs from stakeholders.

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## **Executive Summary**

The Namibian multi-year plan for the control of Neglected Tropical Diseases (NTDs), commonly known as the NTD Master plan, is an essential component for effective planning and implementation of sustainable NTD programmes in the country. It provides programme goals, objectives and a 5-year strategy based on extensive situation analysis and addresses all components of the NTD programmes relevant to the country. This master plan considers the 2021 – 2030 WHO NTD Global Roadmap as well as other relevant global and regional commitments.

Seven of the WHO-listed NTDs are known to exist in Namibia, namely, Schistosomiasis (SCH), Soil Transmitted Helminths (STH), Leprosy, scabies, rabies, snake bite and trachoma. There are others that are suspected but little is known about them from available data as well as published and grey literature.

Key goals of this master plan are to, by 2027, eradicate yaws, eliminate transmission of leprosy, and ensured that at least 30% fewer people require interventions against NTDs. Additionally, the NTD Programme intends to have eliminated schistosomiasis and soil transmitted helminthiases as public health problems in 60% and 50% respectively of endemic health districts. The Master Plan reflects specific targets for each known or suspected NTD in the country.

This Master Plan is divided into four sections:

- NTD Situation Analysis, which describes the environment within which the NTD programme will be developed and implemented, including the national environmental and contextual factors that are critical in understanding the distribution of NTDs and their control.

- Strategic Agenda: Purpose and Goals, which provides an overview of the targets and milestones for all NTDs that are endemic in Namibia, determined through consultation with stakeholders in the country including central and sub-national governments, scientific and research groups, nongovernmental organizations, implementing partners, donors and private sector organizations.

- Implementing the Strategy: NTD Operational Framework, which aims to ensure three fundamental shifts in the approach to tackling NTDs: an increased accountability for impact by using impact indicators instead of process indicators; a move away from siloed, disease-specific programmes by mainstreaming programmes into national health systems and intensifying cross-cutting approaches centred on the needs of people and communities; and a change in operating models and culture to facilitate greater ownership of programmes by the Namibian government.

- Budgeting for Impact: Estimates and Justifications, a key management tool in planning and implementing activities

A total budget of five hundred and eighty-five million, nine hundred and thirty-five thousand, five hundred and forty-eight Namibian dollars (NAD 585,935,548) will be needed to fully implement this plan.

This document is intended to guide NTD programming in the country and to assist in achieving the vision of a Namibia free of NTDs.

## Introduction

NTDs cause immense human suffering, disability, and death. They limit productivity, affect quality of life and remain a serious impediment to poverty reduction and socioeconomic development. They mainly affect those living in poverty, without access to safe water, inadequate sanitation and in close contact with infectious vectors and animals. There are about 20 NTDs caused by a diverse group of parasitic, bacterial, viral or fungal pathogens and also include snake envenoming.

The African Region bears close to 40% of the global burden of neglected tropical diseases (NTDs). All the 47 countries in the Region are endemic for at least one NTD, and 36 of them (78%) are co-endemic for at least five of these diseases. By impairing the physical and intellectual capacities of the affected persons and because they thrive in areas where access to quality healthcare, clean water and sanitation is limited, NTDs perpetuate a cycle of poverty.

Several NTDs are known to exist in Namibia, namely, Schistosomiasis (SCH), Soil Transmitted Helminths (STH), Leprosy, scabies, rabies, snake bite and trachoma. Nine of the fourteen regions are affected by Schistosomiasis and Soil Transmitted Helminths. Further investigations are required to determine the situation of other NTDs such as taeniasis/cysticercosis, cutaneous leishmaniasis, human trypanosomiasis, and onchocerciasis.

A comprehensive multi-year plan for the control, and elimination (and eventual eradication of all NTDs) that are relevant in country, called the *NTD Programme Master Plan*, is an essential strategic document for government of Namibia to effectively plan and implement a sustainable NTD programme in the country. This NTD Master plan provides programme goals, objectives and year strategy based on extensive situation analysis, and addresses all components of the NTD programmes relevant to the country. It enhances synergies among various NTD initiatives, provides the basis for integrated or linked NTD project plans and includes costing and financing requirements for effective NTD programme performance. The Namibian NTD Master plan will also form the basis for harmonized implementation and performance monitoring of all NTD interventions in the country.

This NTD Master Plan (2023 – 2027) governs the prevention, control and, where feasible, elimination and eradication of neglected tropical diseases. It aligns with the NTD Roadmap '*Ending the neglect to attain the Sustainable Development Goals A road map for neglected tropical diseases 2021–2030'*<sup>1</sup>. The aim of the Master Plan is to be a tool for the government to plan for all NTD programmes in the country which facilitate alignment among partners and stakeholders to accelerate progress towards the prevention, control, elimination, and eradication of all endemic NTDs. It provides all partners working on NTDs in the country with a harmonized tool that will facilitate joint support for NTD programme activities.

The Master Plan outlines specific, measurable targets for 2027 for the eradication, elimination, and control of all NTDs endemic or suspected to be endemic in Namibia, as well as cross-cutting targets aligned with WHO's Thirteenth General Programme of Work 2019-2023<sup>2</sup>, and the SDGs. It includes the strategies and approaches for achieving these targets, with cross-cutting themes for several diseases, and moves towards the prevention of infections and alleviation of the suffering of people affected by WHO's expanded portfolio of 20 diseases and disease groups, as well as how this contributes to attaining the SDGs. The Master Plan is inclusive of all diseases categorised as NTDs by the WHO. Namibia intends to address all NTDs endemic or suspected to be endemic in the country, once mapping confirms their endemicity and distribution.

Progress in implementing planned activities as well as the programme performance and outputs will be monitored regularly and evaluated at appropriate intervals by the Namibian government. The strategic plan will be the framework for coordination, harmonization, and alignment of both central and sub-national

<sup>&</sup>lt;sup>1</sup>WHO. Ending the neglect to attain the Sustainable Development Goals: a road map for neglected tropical diseases 2021–2030. Available at <u>https://www.who.int/neglected\_diseases/Revised-Draft-NTD-Roadmap-23Apr2020.pdf</u>. Accessed on July 21, 2020. <sup>2</sup>WHO. The Thirteenth General Programme of Work, 2019–2023. Available at

https://apps.who.int/iris/bitstream/handle/10665/324775/WHO-PRP-18.1-eng.pdf. Accessed on August 1, 2020.

governments, as well as partners. Therefore, efforts have been made to achieve consensus on the content to enhance commitment and accountability of all stakeholders for success in resource mobilization.

The integration of NTDs into the national health system is critical; therefore, the NTD Master Plan will be integrated and reflected into the national health development plans.

This document is divided into three main sections: Operating Context, Programmatic Targets and Operational Framework. Figure 1 below reflects an overview of the key contents of this Master Plan while Figures 2 and 3 illustrates the NTD master plan development and revision process.

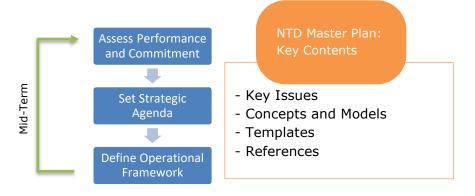


Fig 1. NTD Master Plan Key Contents

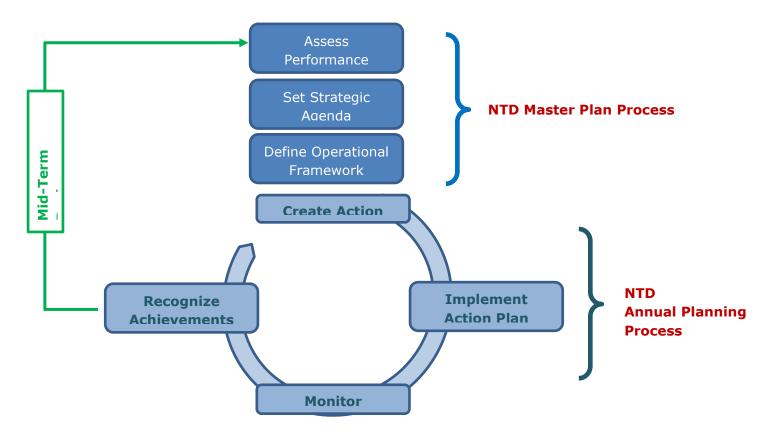
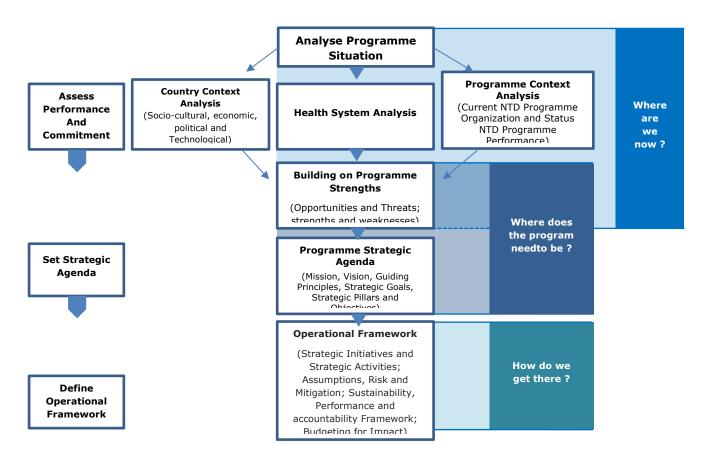


Fig 2. NTD Master Plan: Process and Management Cycles



#### Fig 3. NTD Master Plan Process

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The table below reflects the tools and contents of each key area as documented in the Master Plan.

Table 1. NTD Master Plan Tools	
Key area	Tools
Country Context Analysis	PEST ANALYSIS
Health System Analysis	6 Building Blocks
Programme Context Analysis	Prog. Results and Impact Trends Analysis; Gap Assessment; Structure and Functional Review
Building on Programme Strengths	SWOT Analysis
Programme Strategic Agenda	Mission Statement; Vision, Guiding Principles and Goal Statements; Targets sets; Milestones Charts; 3-level Hierarchy of Objectives;
	Master Plan Strategic Logic Map
Operational Framework	Operations Planning Tools; Programme Strategic Shifts; Programme Culture and Dual Operating Model; Partnerships Matrix; Coordination Mechanisms chart and TOR; Risk Likelihood and Impact Matrix; Assumption and Risk Register;; Risk Mitigation Plan; M&E Framework; Balanced Scorecard; Budgeting Tools

# PART 1: NTD SITUATION ANALYSIS

## Section 1.1. Re-assess National Priorities and the national, regional and global NTD Commitments

This section of the Master Plan describes the environment within which the NTD programme will be developed and implemented. It provides information on the summary of the NTDs present in the country, the context into the national, regional, and global commitments on NTDs including the national development goals, World Health Assembly Resolutions on NTDs, the WHO Regional Committee Resolution on NTDs in 2013; the 2012 London Declaration on NTDs and the Accra Urgent Call to Action on NTDs, Addis Ababa commitment etc, as well as reflects the place of NTDs in the national health plan and the commitment of health authorities to their control. The section also highlights the purpose of the master plan and briefly describes the parts of the National NTD Master Plan.

NTDs cause immense human suffering, disability, and death. They limit productivity, affect quality of life and remain a serious impediment to poverty reduction and socioeconomic development. They mainly affect those living in poverty, without access to safe water, inadequate sanitation and in close contact with infectious vectors and animals. There are about 20 NTDs caused by a diverse group of parasitic, bacterial, viral, or fungal pathogens and include snake envenoming.

Several NTDs are known to exist in Namibia, namely, Schistosomiasis (SCH), Soil Transmitted Helminths (STH), Leprosy, scabies, rabies, snake bite and trachoma. Nine of the fourteen regions are affected by Schistosomiasis and Soil Transmitted Helminths. Further investigations are required to determine the situation of other NTDs such as taeniasis/cysticercosis, cutaneous leishmaniasis, human trypanosomiasis, and onchocerciasis

NTDs have received in recent times increased attention and there have been significant strides made globally in the control, eradication, and elimination of NTDs. This increased attention and improved

resource mobilization have occurred on account of regional and global commitments. These commitments include the following:

- The Accra Urgent Call to Action on NTDs (June 2012)
- The London Declaration on NTDs (January 2012)
- WHA resolution on NTDs at Sixty-sixth WHA in May 2013
- Regional consultative meeting on NTDs in Brazzaville (2013)
- Sixty-third session of the African Regional Committee (RC63, September 2013) which adopted the Regional strategy on neglected tropical diseases (NTDs) which is in alignment with the resolution on NTDs adopted by the Sixty-sixth World Health Assembly in May 2013
- The Addis Ababa commitment on NTDs (December 12, 2014)
- The TVD Regional Resolution (AFR/RC72/7) July 2022: Framework for the Integrated Control, Elimination and Eradication of Tropical and Vector-Borne Diseases in the African Region, 2022– 2030
- The 2022 Kigali declaration on Malaria and Neglected Tropical Diseases (NTDs)
- Global NTD Road maps with the first published in January 2012 with the theme: "Accelerating Work to Overcome the Global Impact of Neglected Tropical Diseases: A Roadmap for Implementation". The second and current roadmap has the theme: "Ending the neglect to attain the Sustainable Development Goals: a road map for neglected tropical diseases 2021–2030". This road map sets targets and milestones on NTDs as well as cross-cutting targets aligned with the Sustainable Development Goals (SDGs).

Most of these policy documents called for improved and sustainable funding, country ownership and leadership, rapid scale up of interventions, integrated systems for delivery of interventions, and generally work towards global control and elimination of NTDs

In addition to all these policy documents there has been drug donation programmes by various pharmaceutical companies as well as funding for NTD programme activities which have been increasing overtime.

The Global NTD Road Map (2021 - 2030) appears to be the most comprehensive and lists ambitious over-arching and cross-cutting as well as disease specific targets to be achieved by 2030. It is in the light of this road map that this current NTD Master Plan has been developed.

Within the country, there are policy documents and commitments that impact on NTDs. These include the National Development Plan (NDP5) and the National Health Policy Framework (NHF). The goal of NHF is the attainment of a level of health and social well-being by all Namibians, which will enable them to lead economically and socially productive lives. The NDP5 has the following specific targets that will impact on NTDs:

- Reduce the percentage of Households practicing open defecation to 60%.
- To Improve % of rural households with access to sanitation to70 %.
- Improve % urban Households with access to sanitation to 87%.

The development of the first country's Neglected Tropical Diseases Strategic Plan 2018-2023 was also an affirmative action that reflects the growing prioritization of NTDs within the national health system.

This Master Plan is intended to be a tool for the planning and implementation of all NTD programmes in the country, under the leadership of the government, and which will facilitate alignment among partners and stakeholders for a joint and complementary support and to accelerate progress towards the prevention, control, elimination, and eradication of all relevant NTDs in Namibia. It provides all partners

and stakeholders working on NTDs in the country with a harmonized tool that will facilitate joint support to NTD programme implementation. The NTD Master Plan has three main sections: Operating Context (describing the environment in which the programme operates), Programmatic Targets (reflecting overarching, cross-cutting and disease-specific targets and milestones), and Operational Framework (stating principally the key activities to be implemented and timeframes as well as programme structure).

### Section 1.2. National Context Analysis

This section contains two parts: country and health system analysis

### 1.2.1 Country Analysis

This section describes the national environmental and contextual factors that are critical in understanding the distribution of NTDs and their control. The details include factors relating to (i) Political; (ii) Economic; (iii) Social; and (iv) Technological using the PEST analysis (Figure 4). The objectives of this analysis are to set the key assumptions on the social-economic background for the next strategic period.

Administratively, the country is divided into 14 regions, namely: Zambezi, Kavango east, Kavango West, Kunene, Ohangwena, Omusati, Oshana, and Oshikoto regions in the north; Omaheke, Otjozondjupa, Erongo, and Khomas regions in the central areas; and the Hardap and //Karas regions in the south.



Figure 4: Administrative Map of Namibia

#### i. Political:

With a constitution based on Roman-Dutch law, the country has a multi-party system and holds general elections every five years. A bicameral legislature consists of the National Council (two members chosen from each regional council) and the National Assembly. The President is the chief executive and is assisted by Ministers who man different ministries, one of which is the Ministry of Health and Social

Services. The key focus of the current administration include is on improving the quality of life of Namibians by developing the economy. There is still no NTD policy document but there are policy documents on Water Supply and Sanitation, National Health Policy, and on Universal Health Coverage – all of which if well implemented will impact positively on NTDs control and elimination. NTDs programming is yet to be included in the Government health sector implementation plans, however the continuous vector control, surveillance and case management programmatic activities do contribute to the prevention, control and management of NTDs such as Scabies. The involvement of higher-ranking officials from Ministries of Education and Agricultural e.g. during the outbreak of Scabies and upsurge of Schistosomiasis as well as their participation at relevant cross-border meetings with Angola constitute evident of political commitment to NTDs elimination.

#### ii. Economic:

Namibia is ranked as a middle-income country but has one of the most skewed incomes per capita in the world. The disparities in per capita income among the population are as a result of lopsided development, which characterized the Namibian economy in the past. The economy of Namibia, which was formerly based on natural resources, is slowly becoming more diversified. This change is partly a result of the increased processing of minerals such as diamonds, zinc, copper, and marble. In addition, tourism sector has been expanding very rapidly in the past two decades. Namibia like the rest of the countries was hard hit by the COVID-19 pandemic. Even the tourism industry was also not spared, adding to the economic meltdown. This has further fuelled the high unemployment rate and the ever-increasing inflation rate. The GDP for 2020/2021 was put at 5.2.(NDP 5). Exchange rate of the Namibian dollar (N\$) fluctuates and currently hovers around N\$17 to the US \$.

#### iii. Social:

The population density is low (2 persons per square kilometer). Regional population densities vary substantially, with almost two-thirds of the population living in the four northern regions and less than onetenth living in the south. Despite its small population. Namibia has a rich diversity of ethnic groups. Due to increasing rates of unemployment and soaring inflation there is a constant stream of people from the rural areas to the urban cities. There is a huge divide between the upper class (mainly white and neaveux-rich black) who dwell mainly in the urban areas and the lower class (mainly blacks) that predominantly live in the rural areas. According to the 2016 DHS, 92.9 percent of households in Namibia have access to safe water for drinking, an increase from 80 percent recorded in 2011. 33.4 percent of households have access to piped water outside their housing units while another 30.1 percent have access to piped water inside their dwellings. Almost all households (99.6%) in urban have access to safe water, with 40 and 31.9 percent of the households having access to piped water inside and piped water outside respectively. Similarly, 85.0 percent of rural households share the same privilege, although there is still 7.7 and 7.1 percent of the rural households that rely on unsafe water from boreholes with tank uncovered and unprotected wells and river, dams, or canal respectively. This poses risks to community about NTDs such as Schistosomiasis and GWD. 70% of households have no toilet facilities in the rural areas with Kavango west and Zambezi regions having the highest proportion at 84.5% and 82.1% respectively. The constant movement of population between Angola and Namibia is another challenge as the former is endemic to GWD.

#### iv. Technological:

A key component of Namibia's Vision 2030 is the development of a knowledge-based society, which is built upon information and communication technology (ICT) and the ICT sector becoming "the most important economic sector in Namibia" by 2030. Namibia has good telephone, mobile and Internet coverage. Since 1996, the country has had access to the Internet, and digital connectivity which currently extend to all but the remotest areas. Namibian population has 74.8% access to mobile and telephone use. However, only 15.2% population have access to computer while 45% have access to electricity for lighting. Namibia has one of the best road infrastructures with most of the international roads tarred. However, some districts such as Opuwo, Okongo and Omuthiya have hard-to-reach areas which might hamper the implementation of NTDs activities. The good telephone, mobile and Internet coverage in the

country has implications for surveillance and reporting of NTD activities as well as in use of use of mobile technology for the monitoring and evaluation of NTD programmes.

The box below shows key issues that could impact on NTD programme implementation in the country

### <u>Political</u>

Political or politically motivated factors that could affect the implementation of NTDs.

- Inability to establish and strengthen appropriate coordination structures
- Decreased political commitment to the control and elimination of NTDs
- Bureaucratic bottlenecks militating effective collaboration with key Ministries

### <u>E</u>conomic

Overall economic forces that could affect the NTD Programme.

- > Rising inflation
- Falling rate of the Namibian dollar against major international currencies
- Growing unemployment rates

### <u>S</u>ocial

Social aspects, attitudes, and trends that influence NTD Programme.

- Community members preference for monetary gains rather than addressing specific NTDs
- Stigma towards those with skin diseases especially leprosy and cutaneous leishmaniasis.
- Migration to urban areas and due to population displacements

### <u>T</u>echnological

Technology that can affect the way you make, distribute, and communicate NTD services

- > Poor network especially in rural areas
- Poor road network to some areas constraining access to some communities.
- Inadequate access to and low capacity to use technological devices (e.g. computers) by sub-national staff

#### Fig 5. The PEST analysis

#### 1.2.2. Health Systems Analysis

#### Health system goals and priorities

This section describes the health system goals and priorities for the next 3-5 years during which the NTD Master Plan will operate, including the top 10 health problems in the country in terms of morbidity and mortality, the process and criteria of priority setting, and the place of NTDs in the national and subnational lists of priority diseases. It does include both goals for delivering health benefits and for preventing harm, i.e., safety.

#### Analysis of the overall health system

The information provided in this section provides a clear view of the health system performance in delivering personal and population-based services to those in need, and analyses health system equity in terms of access, coverage, safety, quality of health services, distribution and utilization of resources, and impact on health indicators, such as reduction in the infant mortality rate and maternal mortality rate. As NTDs interventions rely particularly on communities, efforts have been made to include community-based services to have a better understanding of the main challenges and strengths.

The analysis has been done based on the WHO framework for strengthening health systems with the six building blocks: service delivery; health workforce; information; medical products, vaccines and technologies; financing; and leadership and governance, as detailed below:

Table 2. Six I	Health System Building Blocks
Service delivery	Namibia has a pluralistic health system with the public sector as the main actor. The private sector plays a substantial role divided up among for-profit and not-for-profit health services. The private sector is sizeable. There are 844 private health facilities registered with MOHSS, among which are 13 hospitals, 75 clinics and 8 health centers, mainly in urban areas of Erongo and Khomas regions. Seventy-two percent of doctors in Namibia are in the private sector and a little less than 50% of the registered nurses. Faith-based organizations operate services on an outsourcing basis.
	MoHSS is the main implementer and provider of public health services with a four-tier system: Community Health Workers (2100), outreach points (1150) clinics and health centers (309), district hospitals (35) and intermediate and referral hospitals (5). Annex 9 indicates the number of health facilities in each health district. Access to service is hampered by the vastness of the country with most of the country being thinly populated outside urban centers in the middle and the south of the country. Sixty percent of the population is concentrated in the north, where there is equally a concentration of health facilities. It is estimated that 21% of the population is living more than 10 km away from a health facility The public health system is a unitary system managed by the MoHSS.
	The 13 regions have RMTs, who are responsible for the translation, implementation, and management of the health system in the respective regions including the hospitals. The Regional Director who is the head the RMT and is a member of the Regional Development Committee assuring coordination between the Regional Council and the MoHSS. The Regional Council is responsible for environmental health such as in the regions although there is also MoHSS environmental health staff deployed in the regions. The health district has management responsibility coordinated by the DCC. In the health district, a range of PHC Programme services are delivered at outreach, clinic, health center level and to some extent at hospital level. General outpatient screening is a feature of the services with treatment of common ailments and referral of more complicated cases. Health in the community has been dependent on health extension workers. The system was reviewed in 2006 and it was found that the system is not sustainable due to attrition of volunteer health workers. Traditional medicine is widely used in the country and often the first port of call. However, there is no regulation of the practice.
	Laboratory services are organized through the National Institute of Pathology (NIP), an autonomous entity with a mandate to provide laboratory services to the public health system and to sell services to the private sector.
	Ambulance services is one of the health care services by the Ministry of Health and Social Services that provides emergency services to all those in need.
Health workforce	The workforce situation in Namibia is above the WHO benchmark of 2.5 health workers per 1000 population. In Namibia there are 3.0 health workers per 1000 population. Specific health worker-population ratios include 1:2,952 for doctors, 1:704 for registered nurses, 1:10,039 for pharmacists, 1:13,519 for social workers, and 1:28,562 for health inspectors, among others. This situation however conceals the fact that there is a very unequal distribution with most health workers concentrated in urban areas and a high percentage found in the private sector in private clinics. Overall 26.9 percent of health professional posts in the public sector are vacant: 36% for doctors, 21% for registered nurses, and 42% for social workers.
Health	There are no focal NTD Program Officers/focal persons at any level in the country yet. Health information is generated through routine data collection, analysis and reporting.
information	Information systems do also cover human resources, infrastructure, and other health resources. Adequately managed systems are essential for any service delivery.

	It is well recognized that the regular NDHS provide essential health status information and the addition of the first Health and Social Services System Review 2008 is an essential tool for health system review. The regular National Health Account survey adds useful information to the information pool as does the Annual Report on Essential Indicators. The MoHSS utilizes DHIS2 for the national health related data capturing, analysis, and dissemination. NTDs data need to be included in the DHIS2 (Inpatient and Outpatient modules) to strengthen surveillance. NTDs need to be integrated into the national Integrated Disease (IDSR) Surveillance system to strengthen disease surveillance. The Health information flows from the community (CHWs) to health facilities, districts, region, up to the national level and vice versa.
	The existing information system suffers from degrees of fragmentation where resource- strong programmes "push" their own parallel information system agenda. The central information system is grossly understaffed and under-resourced. The electronic health information system (HIS) is slow to produce required reports and consequently annual reports have not been issued on a regular basis. There is a problem with the completeness of data with problems of collecting data from the private sector.
Medical products	All issues pertaining to medicines in Namibia are guided by the 2 <sup>nd</sup> Edition of the National Medicines Policy NMP (April 2022) and its accompanying implementation plan. The NMP constitutes part of the continuous efforts by the Ministry of Health and Social Services (MoHSS) to ensure availability of safe, efficacious, and quality essential medicines as an important condition for a well-functioning preventive, curative and rehabilitative health service. The Medicines and Related Substances Act 13 of 2003 is the legislation which enacts this control and was implemented in August 2008. Under this Act the Namibian Medicines Regulatory Council has been mandated to control medicines and related substances in Namibia. A system of registration of medicines and inspection of manufacturers through various regulatory good practice and initiatives including reliance is implemented. There are facilities where medicines are kept but is hampered by shortage of staff. In the public sector there is a centrally managed system for procurement, storage and distribution of medicines are related supplies, and all medicines to be procured in public health facilities must first be included in the Namibia Essential Medicines List (Nemlist). The Nemlist is currently in its 6 <sup>th</sup> edition, finalized in 2021. In addition to specifying which medicines are available in the public health sector the Nemlist also classifies medicines to determine at which level of care they can be available, or for which conditions they may be used. There is shortage of professional staff. Various efforts have been made to address the critical shortage of trained pharmacy staff in Namibia. Furthermore, the intake for Pharmacist's Assistants Training Course at the National Health Training Centre has been increased from 10 to 25 per year, and more Namibians are being sent to study pharmacy in other African countries. The distributed on the Electronic Dispensing Tool into all main ART sites has improved the efficiency of pharmacy staff by reducing the time they sp

Health financing	Namibia is classified as an upper middle-income country with a very unequal distribution of wealth. Health inequalities are therefore embedded in such wealth inequalities of the population. The per capita spending on health is (4500 N\$, 2013) comparing favorably with countries in the region. Health care financing in Namibia is mainly tax-based. Health care spending as a percentage of total government spending is 13.5% - the highest in the region, but still short of the Abuja target of 15%. User charges (registration fee) in the public sector are in place as an instrument to discourage people from going directly to hospitals. International partners, although few, provide a substantial contribution targeting special programmes. Their contribution was 23% in 2007. Donor funds are included in forward public-sector budgeting, but do not appear in the annual budget announcement by the MoF.
	The private sector contribution is 25%. Faith based organizations receive grants from MOHSS for provision of health services according to agreed contractual arrangements.
	There is an insurance scheme providing health insurance for public sector employees. Private insurance companies provide health insurance policies for private sector employees. Out-of-pocket payment is at this moment not a sizable percentage according to the latest National Health Account. Planning and budgeting are done in separate entities in the MoHSS and need to be brought together. The MTEF for the health sector requires definition of programmes.
	The MoF has introduced an integrated financial management system (IFMS), which has the potential to de-concentrate access to this system but, unexpectedly, it has made it more cumbersome for the regions to access funds as the system is not yet established in the regions. FDC holders (regions and directorates at central MoHSS) control their budget allocations and are the key actors involved in planning and budgeting. The revenue collected in the MoHSS comes mainly from the sale of services (76%) in government hospitals to private patients and providers. All revenue goes into the public coffer in the MoF including user fees. In the hospitals there is no proper billing system in place. Public finances for health are increasingly coming under strain from expenses to special programmes. Financing NTDs interventions requires multi-sectoral planning and budgeting through MoHSS, METF, MAWLR, MOF, MoEAC, and other relevant stakeholders to ensure effective targeted activities. Each of these sectors need to own a stake in the implementation of NTD related activities to ensure effective prevention and management. Currently, there is no budget line for NTDs programme at the national or regional levels.
Leadership and governance	The MoHSS is the sole custodian of the health of the people in the country but not the sole custodian of responses and interventions. For social welfare the responsibility is shared with other ministries: Ministry of Gender Equality, Poverty Eradication and Social Child Welfare; Ministry of Labor, Industrial Relations and Employment Creation and Social Welfare; and Ministry of Defence and Veterans Affairs. Other Ministries such as Ministry of Agriculture and Land Reform; Ministry of Education, Arts and Culture; Ministry Environment, Forestry and Tourism; Ministry of Urban and Rural Development; as well as Ministry of International Relations and Cooperation collaborate with MoHSS in the prevention, early detection, and management of NTDs and several other communicable and non-communicable through sectoral implementation of program activities and share responsibilities for specific and general interventions (e.g. deworming through the school health programme, mass campaign for vaccination of dogs, surveillance for animal trypanosomiasis by the Ministry of Agriculture). The MoHSS ensures universal coverage and access to health care through adequate policies such as emphasis on PHC.
	The stewardship function delivers through formulation of policies, national as well as programme policies and strategies, planning and budgeting, and establishment of

relevant technical programmes for providing guidance and support. Facility planning is a central function with some overlapping responsibilities. A strategic plan has been developed for the period 2017 to 2022 with emphasis on the following strategic objectives: Reduce incidence and prevalence of communicable diseases; Improve effective prevention and management of non-communicable diseases; Improve maternal and new-born health; Improve emergency services; and strengthen social welfare through quality health services. Other objectives include: Ensure integrated and functional ICT infrastructure; Ensure regulatory framework for health service delivery; Accelerate health infrastructure development; Improve contracting and pharmaceutical supply of medicines; as well as enhance organizational performance. There is also a focus to enhance human capital development and utilization service provision, human resource management, infrastructure development and management, financial management and governance. The strategic plan will be an important instrument in providing two cycles of strategic planning in a policy cycle of 10 years.

The MoHSS has been mandated by Cabinet to manage and coordinate the national response to all communicable, non-communicable diseases including NTDs as well as other public health related challenges. There are 5-yearly National Strategic Plans/Frameworks which guide programme focus and implementation. However, there are specific organs for the control of some health interventions such as HIV/AIDS. The MoHSS assures overall sector management including the private sector. It regulates several areas with various legal instruments. However, some of these legal instruments need to be updated through the Public and Environmental Health Act (No. 1 of 2015). Also, the Mental Health Bill needs to be enacted to provide the necessary protection for people with mental health problems, while various other policy and legal instruments need to be completed, updated, developed and/or enacted. The MoHSS enters into contractual arrangements through outsourcing arrangement with Faith-based organizations and other contractual partners. There is however a problem with inadequate management of the contracts with service providers, which led to the development of the current draft of the Social Contracting policy document, which is to be finalized in due course.

The independent Health Professionals Council of Namibia (HPCNA) is responsible for assuring that all health professionals operating in the country have a recognized formal training qualification and are registered for practice. The MoHSS is responsible for defining scopes of practice and for providing the requisite institutional and legal protection of its workforce. There is no official policy for NTDs and NTDs are yet to be included in the health sector strategic plan and the sub-national health work plans. However, some of the NTDs especially the case management NTDs are taken care of at the facility level when the patients show up. There are no NTD structures at the national or sub-national level for now.

The Namibian Medicines Regulatory Council is responsible for pharmacovigilance activities but there has been very little collaboration during the two rounds of mass drug administration for SCH and STH.

### Section 1.3. Gap Assessment

This section provides information on the current status of the NTDs in the country identifying the areas requiring concerted action as well as the assessing the disease-specific gap assessment across the various dimensions identified in the NTD Roadmap (see Figures 6 & 7, 10).

Seven of the WHO-listed NTDs are known to exist in Namibia, namely, Schistosomiasis (SCH), Soil Transmitted Helminths (STH), Leprosy, scabies, rabies, snake bite and trachoma. There are others that

are suspected but little is known about them from available data and published/unpublished literature. Areas requiring concerted action include the following:

- a. *Mapping for presence and distribution of NTDs*: The only two diseases that have been properly mapped are schistosomiasis and soil transmitted helminthiases. But there are still districts that are yet to be mapped for these two. For the others that are known to be endemic in the country there is insufficient understanding of their prevalence and distribution. Several other NTDs are suspected to be endemic in the country but the data obtained from DHIS2 and other literature do not provide sufficient evidence of their presence. A key priority is therefore the mapping of these diseases in the country.
- b. Treatment and management of cases: Mass treatment targeting school-age children have been started for SCH and STH but this has been sporadic with the first taking place in 2015 and the next in 2019. Treatment and case management of the other diseases take place when patients visit health facilities. Patients' follow up is hardly done. There are also concerns of proper diagnosis of these cases. Based on mapping outcomes it is essential to initiate mass treatments using school or community-based approaches or a hybrid for the endemic PC-NTDs and organize structured case management systems in health facilities and at community levels.
- c. Development of guidelines for interventions: Though there are existing standard guidelines for the mapping of all NTDs and delivery of interventions these need to be adapted and reviewed by the country and deployed appropriately. There are few existing guidelines for NTDs in the country and some of these ones are outdated and needed to be revised/updated.
- d. Supply and delivery of quality-assured but affordable drugs and diagnostics: There are drug donations for most of the PC-NTDs and some CM/NTDs but these have to be applied for in time. In addition, country delivery systems need to be put in place to ensure last mile delivery in time for interventions. A few NTDs do not have donated drugs and will need to be purchased by the government. This implies adequate budgeting and identification of quality-assured medicines to procure.
- e. Coordination structures: Currently, there are very limited coordination structures in place even at the national level for NTD programming. The implication is that interventions are not properly coordinated and reported. Partnership alignment is also problematic. It is important to establish appropriate structures and ensure proper partners alignment.
- f. *Infrastructure and human resources for health*: The ratio of health workers to the population is above the required standard. However, most of the health workers are in the private sector, and distribution is skewed towards the urban areas. The public sector and the rural areas do not have adequate numbers to manage public health issues.
- g. Sustainable Funding and other resources: Namibia is classified as an upper middle-income country but soaring unemployment and inflation rates affect disproportionately the rural and urban poor that form the majority of the population. The COVID situation has further affected the economy and thus there is less expendable money from government sources. There is currently no funding for NTD programme activities from a dedicated budget line item. It is therefore important for sustainable funding mechanisms to be established which will include mobilization of resources from external donors and the private sector in-country.

### Section 1.4. Programme Context Analysis

#### 1.4.1. Current NTD Programme Organization and Status

The information provided in this section covers the status of NTD endemicity, control interventions, and provides guidance for the selection of areas that will immediately be targeted for NTD interventions. What is contained in this section has been based on information from surveys conducted and health service

data (health case records) from DHIS2 platform – which gives some idea on disease distribution particularly for case management of diseases. Additionally, in this section:

- Country maps showing the distribution of each of the NTDs and the overlap among NTDs have been inserted.
- A list of the NTDs endemic to the country giving levels of morbidity and mortality reported during the past 5 years have been provided.

Region	Number of Health Districts	Number IUs	No. of village s or comm unities *	Total population	Under- 5 (Pre- school)	5–14 years (School age)	No. primary schools	No. of po	eripheral he	ealth facilitie:	5
								Referr al	District	Health Centres	Clinics
Zambezi	1	1		100,036	11,004	12,004	48	0	1	4	27
Erongo	4	4		121,472	13,362	14,577	37	0	3	5	27
Hardap	3	3		77,003	8,470	9,240	39	0	3	6	26
Karas	3	3		78,221	8,604	9,387	30	0	3	2	23
Kavango E	1	1		330,652	36,372	39,678	244	0	1	2	47
Kavango W	3	3		47,909	5,270	5,749	11	0	1	5	16
Khomas	1	1		497,795	54,757	59,735	52	2	0	4	10
Kunene	3	3		88,042	9,685	10,565	40	0	3	0	24
Ohangwena	3	3		324,637	35,710	38,956	120	0	3	1	27
Omaheke	1	1		9,876	1,086	1,185	30	0	1	2	16
Omusati	4	4		269,269	29,620	32,312	144	0	4	6	41
Oshana	1	1		202,909	22,320	24,349	62	0	1	5	17
Oshikoto	3	3		219,451	24,140	26,334	116	0	3	4	17
Otjozondjupa	4	4		209,306	23,024	25,117	48	0	4	1	20
Total											
	*Where impl	ementation a	and adminis	strative units a	re separate (	e.g. onchoce	erciasis interv	 entions), ta	arget comn	l nunities in a	district.

#### Table 3: National population data, schools, and health facilities at district level

Region	No.of Health districts	Number of Endemic Districts							
		LF*	Oncho*	SCH	STH	TRA*	Remarks		
Kharas	3								
Erongo	4	1							
Hardap	3								
Kavango-East	3		1						
Kavango-West	2								
Khomas	1								
Kunene	3					2			
Ohangwena	3								
Omaheke	1								
Omusati	4	2	1						
Oshana	1								
Oshikoto	2	1							
Otjozondjupa	4								
Zambezi	1					1			
Total									

#### Table 4a: Known disease distribution in the Country (PC/NTDs)

\*Based on reported cases on the DHIS2 platform

Region	No.of Health districts	Number of Endemic Districts									
		HAT	Lep	Lesh	Myceto	Food Borne Trematodes	SBE	Taeniasis/ Cysticerc	Yaws	Echino	Remarks
Kharas	3				1	1	2				
Erongo	4	1			1	1	3	1			
Hardap	3						2		1	1	
Kavango-East	3	1					3	1	1		
Kavango-West	2	1		1	1	1	2				
Khomas	1	1		1	1	1	1	1	1	1	
Kunene	3						3		1		
Ohangwena	3	2				1	2	2	1		
Omaheke	1	1					1		1		
Omusati	4						4	1	1		
Oshana	1	1			1		1	1	1	1	
Oshikoto	2	3		1	1		3	1	1	1	
Otjozondjupa	4				1		4				
Zambezi	1	1					1				
Total											

#### Table 4b: Known disease distribution in the Country (CM/NTDs) - based on data from DHIS2

### Situational Analysis of NTDs in Namibia

#### 1. Schistosomiasis (Bilharzia)

Schistosomiasis is an acute and chronic disease caused by parasitic worms. It is acquired when people wade/swim in fresh water infested with the larval forms (cercariae) of parasitic blood flukes, known as schistosomes. The microscopic adult worms live in the veins draining the urinary tract and intestines.

Most of the eggs they lay are trapped in the tissues and the body's reaction to them can cause massive damage. Lack of hygiene and certain play habits of children such as swimming or fishing in infested water make them especially vulnerable to infection. 19 of 34 districts mapped are endemic for SCH, 7 districts having moderate prevalence (10-49%) while 12 have low prevalence (1-9%). 4 districts are non-endemic. There is little information about the presence and prevalence of Female Genital Schistosomiasis

#### 2. Soil Transmitted Helminthiasis (Intestinal Worms Infection)

Soil-transmitted helminth infections are transmitted by eggs present in human faeces, which in turn contaminate soil in areas where sanitation is poor. The main species that infect people are the roundworm (*Ascaris lumbricoides*), the whipworm (*Trichuris trichiura*) and the hookworms (*Necator americanus* and *Ancylostoma duodenale*). When infested people, particularly children can have such symptoms as diarrhoea, abdominal pain, general malaise and weakness. STH affect the poorest and most deprived communities. 23 of 34 districts mapped are endemic for SCH, with14 districts having moderate prevalence (20-49%) while 9 have low prevalence (1-19%).

#### 3. Trachoma

Trachoma is the leading infectious cause of blindness, but data on the distribution and burden of the disease in Namibia is limited. A rapid assessment conducted in Zambezi region (Katima Mulilo District), Ohangwena Region (Okongo and Eenhana Districts) and Kunene region indicated 10 adults had Trachomatous Trichiasis (TT) and 1 child had Trachomatouse inflammation Follicular (TF) in Zambezi Region while in Ohangwena Region 1 out of 112 people examined had Trachoma Scarring (TS) and 1 adult had TT in Okongo district. In Eenhana district, out of 88 people examined, 1 had TS. In Kunene Region a considerable proportion of children ha TF and 2 children had active trachoma. A formal population-based trachoma prevalence surveys is yet to be undertaken in the regions to establish the prevalence of TF in 1–9 and of TT in people ages of equal or more than 15-year-olds.

#### 4. Lymphatic Filariasis (Elephantiasis)

Lymphatic filariasis occurs when the filarial parasite, *Wuchereria bancrofti*, is transmitted to humans through bites by several different mosquito genera. Infection is usually acquired in childhood causing hidden damage to the lymphatic system. This can lead to the abnormal enlargement of body parts (lymphoedema on the limbs or hydrocele – a gross scrotal enlargement), causing pain, severe disability and social stigma. Four cases were reported on the DHIS2 from Onandjokwe, Okahao, Oshikuku and Walvisbay Districts between 2017-2021. How the diagnosis was done is unknown. Bruce and Berta (2012) do not cite LF as one of the NTDs reported historically though some of the vectors that are known to transmit the parasite were reported. The disease is endemic in the neigbouring countries of Angola and Zambia but border areas with Namibia are generally non-endemic. Uniting to Combat NTDs (2022) (Bruce and Berta (2012) - Neglected tropical diseases of Namibia: Unsolved mysteries) indicates that the country will not need mass treatment for LF, which pre-supposes that some infections could occur/be imported but will not be many. Mapping may need to be done in the border districts with Angola just to rule out the possibility of LF endemicity.

#### 5. Onchocerciasis (River Blindness)

Onchocerciasis is a parasitic disease caused by the filarial worm *Onchocerca volvulus* transmitted by repeated bites of infected blackflies (*Simulium spp.*). These blackflies breed along fast-flowing rivers and streams. Symptoms include severe itching, disfiguring skin conditions, and visual impairment, including permanent blindness. In Namibia, 3 cases (1 from Nyangana District, 2 from Oshikuku District) were reported through DHIS2 in 2018. How the diagnosis was done is unknown. Namibia is among the countries that are classified as not requiring any mass treatment for onchocerciasis given that the ecological conditions may not support the breeding of the vector. However, onchocerciasis elimination mapping (OEM) may need to be done to determine whether mass drug administration (MDA) is required or not in few districts.

#### 6. Leprosy (Hansen Disease)

Leprosy is a chronic infectious disease caused by *Mycobacterium leprae*, an acid-fast, rod-shaped bacillus. The disease mainly affects the skin, the peripheral nerves, mucosa of the upper respiratory tract, and the eyes. Leprosy is curable and treatment in the early stages can prevent disability. Namibia is among the countries that have achieved the global leprosy elimination status of less than 1 case per 10,000 population since 2004. However, leprosy continues to be sporadically reported particularly in the northern regions. This is in part due to historical factors: a leprosarium established in Mashare constituency in Kavango East Region housed all the leprosy cases in Namibia before it was closed during the 1970s, and the leprosy patients stayed and integrated within the community. There are also many old cases with residual disabilities that require continuing rehabilitation services.

Between 2006 and 2021, the program had the highest detection rate of cases in 2010, 42 in total. This detection has evolved up and down with significant drops as in 2012 and 2014 with only 6 cases, then a gradual rise to 27 cases in 2020 and again a drop in 2021. Such a curve may signify a weak surveillance of the disease. A leprosy screening campaign in Kavango region in 2019 detected up to 16 new cases, or 72% of the leprosy burden in 22 (n=16/22). 12/16 cases were from Rundu district alone. Most cases are multibacillary (MB) and adults (aged  $\geq$ 15 years), indicating that infection likely occurred several years back. The number of new cases with grade 2 disability (G2D) is low (between 0 and 4 per year), and the number of new cases are detected in a small number of districts (n=8) in 6 Regions.

#### 7. Human African Trypanosomiasis (HAT)/ Sleeping sickness

Human African Trypanosomiasis, is a vector-borne parasitic disease, caused by infection with protozoan parasites belonging to the genus *Trypanosoma* transmitted by infected tsetse flies. Without treatment, the disease is considered fatal. There are 2 sub-species of the HAT parasite: *T.b gambiense* (which is found in Angola, Uganda, Congo Rep), and, *T.b rhodesiense* (found in Botswana, Burundi, Eswatini, Ethiopia, Kenya, Malawi, Mozambique, Namibia, Zambia, Zimbabwe). A few HAT cases were reported through DHIS2 between 2017-2021 in Namibia. 12 cases of *T. b. gambiense* were reported from Engela, Gobabis, Katima mulilo, Onandjokwe, Walvisbay and Windhoek. Additionally, 17 cases unspecified species were reported from Engela, Gobabis, Ncamagoro, Omuthiya, Onandjokwe, Oshakati, Tsumeb, Okongo, Oshikoto, Rundu and Windhoek districts.

#### 8. Scabies

Human scabies is a parasitic infestation caused by *Sarcoptes scabiei var hominis*. The microscopic mite burrows into the skin and lays eggs, eventually triggering a host immune response that leads to intense itching and rash. Scabies infestation may be complicated by bacterial infection, leading to the development of skin sores that, in turn, may lead to the development of more serious consequences such as septicaemia, heart disease and chronic kidney disease. Cases of scabies are reported from all over Namibia. Available data showed 3,687 cases in 2015 with increases reported annually and 19,212 cases (the highest so far) reported in 2022. An annual average of 9,650 cases has been calculated for the period 2015 – 2022. In April 2022, the health minister declared a scabies outbreak in the entire Namibia.

#### 9. Rabies

Rabies is a zoonotic disease that is caused by a virus. Rabies infects domestic and wild animals and is spread to people through close contact with infected saliva (via bites or scratches). A total of 42 rabies cases and 12 fatalities were reported through Integrated disease surveillance and response (IDSR) routine reporting from mostly northern regions.

#### 10. Snakebite envenoming

Snakebite envenoming is a potentially life-threatening disease caused by toxins in the bite of a venomous snake. Envenoming can also be caused by having venom sprayed into the eyes by certain species of snakes that have the ability to spit venom as a defence measure. A cumulative total of 1400 snakebites have been reported through DHIS2 between 2018-2021 from 32 districts in Namibia with 248, 472, 348, and 332 cases reported in 2018, 2019, 2020 and 2021 respectively.

#### 11. Taeniasis/Cysticercosis

Taeniasis is an intestinal infection caused by 3 species of tapeworm: *Taenia solium* (pork tapeworm), *Taenia saginata* (beef tapeworm) and *Taenia asiatica*. Ingested *T. solium* eggs develop to larvae (called cysticerci) in various organs of the human body. When they enter the central nervous system, they can cause neurological symptoms (neurocysticercosis), including epileptic convulsions, severe headache, and seizures, all of which are non-specific to this disease. Due to the low suspicion index many cases go undiagnosed and under-reported. A study conducted in Oshana Region, in Intermediate hospital Oshakati between August 2012 and March 2014 among 221 patients with first time seizure revealed that 96% of the patients studies had evidence of Neurocysticercosis on Brain CT scan. Moreover, in 2019 during the Mass drug administration campaign conducted by the MoHSS in six regions among School going children, there were three cases of Serious Adverse Events (SAE) reported from Ohangwena region, resulting in one fatality. Autopsy results revealed that she had Neurocysticercosis. A number of cases have been reported through DHIS2 between 2017-2021:

- Cystercercosis 47 cases reported from Eenhana, Engela, Onandjokwe, Oshakati, Oshikuku, Rundu, Walvisbay and Windhoek Districts.
- Cysticercosis of central nervous system 111 cases reported from Engela, Grootfontein, Onandjokwe, Oshakati, Oshikuku and Rundu Districts

#### 12. Echinococcosis

Human echinococcosis is a parasitic disease caused by tapeworms of the genus *Echinococcus*. The two most important forms in humans are cystic echinococcosis (hydatidosis) and alveolar echinococcosis. Humans are infected through ingestion of parasite eggs in contaminated food, water, or soil, or after direct contact with animal hosts. A total of 57 cases of Echinococcus were reported from four districts, between 2018-2021 through DHIS2: Windhoek district (52), Onandjokwe (2), Oshakati District (2), and Rehoboth (1).

#### 13. Yaws

Yaws forms part of a group of chronic bacterial infections commonly known as the endemic treponematoses. It is a chronic disfiguring and debilitating childhood infectious disease, and affects skin, bone, and cartilage. Humans are currently believed to be the only reservoir, and transmission is from person to person. 15 cases have been reported through DHIS2 between 2017-2021 from Oshakati, Okonongo, Rehoboth, Outapi, Gobabis, Outjo, Rundu, Tsumeb and Windhoek districts.

#### 14. Food-Borne Trematodes

People become infected by eating raw fish, crustaceans or vegetables that harbour the parasite larvae. Foodborne trematode infections result in severe liver and lung disease. A total of 8 cases of Foodborne trematodiasis were reported through DHIS2 between 2019-2021 from five districts namely Widhoek (1), Keetmanshoop (1) Omaruru (1), Engela (1), Ncamagoro district (4).

#### 15. Leishmaniasis

Leishmaniasis is caused by protozoan parasites which are transmitted by the bite of infected female phlebotomine sandflies. There are 3 main forms of leishmaniases – visceral (also known as kala-azar, which is and the most serious form of the disease), cutaneous (the most common), and mucocutaneous. In Namibia, three cases of Leishmaniasis reported from 3 Districts through the DHIS2, Visceral L =1 from Omuthiya, Mucocutaneous=1 from Windhoek District and Unspecified L=1 from Andara district.

#### 16. Mycetoma

Mycetoma is a chronic disease usually of the foot but any part of the body can be affected. Infection is most probably acquired by traumatic inoculation of fungi or bacteria into the subcutaneous tissue. A total of 12 cases of mycetoma were reported through DHIS2 between 2017 to 2021 from 4 districts: Luderits, Tsumeb, Swakopmund and Windhoek.

Provide in annexes an organizational chart showing the position of NTD programmes and programme coordinator and managers in the health sector (see an example in annex 3)

#### 1.4.2. NTD Programme Performance

- In this section, information on key results, impact, and trend analysis (where available) of the NTD programme have been provided. The past and on-going NTD control programmes, though few, have been listed. This information has been organized into the following sections some of which are not currently applicable to the country:
  - Completeness of the mapping and survey need
  - o Geographical coverage for all NTDs and expansion need
  - Impact assessments survey results for all NTDs (TAS, Trachoma, SCH and STH prevalence change) and need of survey
  - Reduction of number of people requiring NTD intervention and evolution of the need of tablets for PC.
  - Safety assessment (correctness of dosing; frequency of SAEs; incidence of young children choking on tablets; successful management of safety-related episodes that cause community concern)
- The past and on-going interventions to control specific NTDs are described below. This information has been summarized in tables 4 and 5

Endemic NTD	Total # health Districts	No. of endemic districts	No. of districts mapped or known endemicity status	No. of districts remaining to be mapped or assessed for endemicity statu		
Schistosomiasis	35	19	34	1		
Soil Transmitted Helminthiasis	35	23	34	1		
Trachoma	35	3**	<u>,</u>	· · · ·		
Onchocerciasis	35	2*				
Lymphatic filariasis	35		0			
HAT <sup>a</sup>	35	13*	0	13		
Leishmaniasis	35					
Leprosy	35					
Yaws	35	9*		9		
Dracunculiasis	35	0				
Snakebites	35	32*	32	35		
Rabies	35					
Scabies	35	35*	0	35		
Mycetoma	35	7*		7		
Taeniasis/cysticercosis <sup>в</sup>	35	8*		24		
Leishmaniasis						

\*Based on cases reported on the DHIS2 aAt the districts bordering Angola B Northern Regions

\*\*Based on a rapid assessment conducted in the 3 districts

#### **Status of Interventions**

For **Schistosomiasis and Soil Transmitted Helminthiasis** there have been two mass campaigns directed at school-age children. The first was done in 2015 and the second was in 2019. In 2015 46,404 children and 83,403 children were treated with praziquantel and albendazole respectively for SCH and STH in 10 districts within 4 regions (Zambezi, Kavango, Kunene and Omusati). In 2019, 437 schools were targeted and treated in 15 districts within five regions in the country– Ohangwena, Omusati, Otjonzondjupa, Kavango and Zambezi. At least 159,478 received albendazole (l.e., 92% of the target), while 133, 382 received praziquantel (91% of the targeted population). Despite measures put in place to minimize SAEs, three SAEs were recorded with neurocysticercosis incriminated in two cases. The third case had seizures which is also associated with neurocysticercosis. A fatality was subsequently recorded. 16 adverse events were also reported. An investigative team recommended among other things enhanced supervision, strengthening of processes to exclude children with pre-existing conditions, and improved reporting of SAEs.

**Leprosy** is one of the notifiable diseases and all cases seen at any facility must be reported appropriately and included in the leprosy register in that district. Treatment is free but supervised to ensured patients observed DOT. However, there is dearth of data on treatments and treatment outcomes.

**Rabies** is one of the notifiable diseases in the IDSR and it is reported immediately upon detection at the health facility. Treatment guidelines are available in the Namibian standard treatment guide. Mass vaccination of dogs and other pets especially in the Northern communal areas is done by the Ministry of

Agriculture Water and Forestry in high-risk areas to control rabies. Cases of human rabies are managed in health facilities when they are brought in.

**Scabies** is also being managed at health facilities and scabicides are being procured. Some health education by community health workers is being done on a limited basis at community level and in facilities. About 330 clinicians and surveillance officers have been trained on management and surveillance on scabies case in April 2022.

**Snakebites**, **Yaws**, and **Taeniasis/Cysticercosis** are also managed at health facilities when they come for consultation and are appropriately diagnosed.

Overall, except for schistosomiasis, soil transmitted helminthiases and leprosy there is no coordinated approach to the management and control of the NTDs known to be endemic in Namibia. In recent times (2022), on account of the declaration of the Minister of Health of a scabies outbreak, coordinated efforts have started to be harnessed.

## **1.4.3 Performance of the other programmes that are closely related to NTD programme**

#### **Vector control**

Vector management or control activities conducted in the country have been described here in relation to:

• Which diseases (NTDs and other) in the country are targeted for vector control interventions

The malaria programme is implementing the following vector control interventions: mass distribution of ITNs, indoor residual spray and larviciding. The Ministry of Agriculture, Water and Land Reform maintains passive surveillance for transmission of African trypanosomiasis by tsetse flies.

• How integrated the intervention for vector control management are

No integration is taking place currently

• What the key interventions and coverage of the vector control interventions are

The Malaria Programme distributes ITNs to nomadic populations and cattle herders and households living in structures that cannot be sprayed. IRS is conducted in all households in all villages that reported cases in the last 3 years, and larviciding is done in identified breeding sites. These interventions are implemented in the nine malaria-endemic regions.

	Table 6. Vectors and Associated NTDs									
Activity		Maaguitaaa		Other Vectors						
	Mosquitoes			Snails	Black fly	Sand fly	Tsetse fly			
	LF	Dengue	Malaria	Schisto	Oncho	Leish	HAT			
ITN	Х	Х	Х			Х	-			
IRS	Х	Х	Х			Х				
Space spraying					Х		Х			
Larviciding	Х	Х	Х		Х					
Traps							Х			
Prevention/treatmen t of breeding sites	Х	Х	Х	Х	x	??				

#### **One-Health**

• One-Health approaches being implemented in the country

The Directorate of Veterinary Services (DVS) in the Ministry of Agriculture, Water and Land Reform has responsibility for the oversight of animal health in Namibia. The objective of the Directorate of Veterinary Services (DVS) is to maintain and promote optimal animal health, production and reproduction as well as assure the safe and orderly marketing of animals and animal products through animal disease control, epidemiology, veterinary extension, veterinary public health services, diagnostic services, and research. Animal disease surveillance is a major activity of DVS. Routine active and passive surveillance activities such as farm inspections, community visits, ante- and post-mortem inspections at abattoirs, as well as supervision and livestock inspections at livestock auctions are routinely carried out.

• Diseases and conditions covered under One Health approach

The maintains surveillance for the following animal health issues/diseases: Foot and Mouth Disease, Rabies, Lungsickness, Mad Cow Disease/Bovine Spongiform Encephalopathy (BSE), and animal African trypanosomiasis – among others.

• Key interventions conducted and the opportunities for NTDs

A rabies pilot control project was launched in March 2016 in the Oshana Region, and subsequently rolled out to all the eight regions of the Northern Communal Areas (NCA). The following activities are being implemented: pet vaccination, surveillance, and community education. Additionally, a training programme is being implemented for vaccination teams on the logistics surrounding a campaign, maintenance of the cold chain, dog handling for best practice vaccination, and correct data collection in the NCAs. In 2020/2021 financial year a total of 83,398 pets (dogs and cats) were vaccinated against rabies. This has resulted in the improvement in pet rabies vaccination coverage and a decline in rabies cases.

The NTD Programme will need to collaborate with the Ministry of Agriculture to improve awareness on human rabies, food borne trematodes, HAT, and taeniasis/cysticercosis.

#### WASH

Reference to the Water sanitation and hygiene for accelerating and sustaining progress on neglected tropical diseases. A global strategy 2015-2020<sup>3</sup> for detailed framework of NTD and WASH integration. The existing situation of the WASH and NTD interventions in the country is analysed below:

• Coordination of WASH activities in the country

There is a Directorate of Water Supply and Sanitation Coordination (DWSSC) under the Department of Water Affairs in the Ministry of Agriculture, Water and Land Reform with the responsibility of providing access to potable water supply and improved sanitation services in rural communal areas, coordinating urban and rural water supply and sanitation services, and supporting the provision of water supply and sanitation services in rural communal areas, coordinating implementing partners for WASH include the Ministry of Urban and Rural Development (MURD) which provides sanitation services in the un-proclaimed settlements, the regional and local authorities that are responsible for providing sanitation facilities in areas under their jurisdiction, the Ministry of Education through its School Health Programme, the Ministry of Health and Social Services, as well as various development partners such as UN agencies, NGOs and CSOs through their technical and financial contributions.

• Key WASH related interventions in the country.

For the year 2020/2021 the Directorate of Water Supply and Sanitation Coordination installed 112 boreholes in seven (7) regions, installed 278 Short Pipes in the various regions, and drilled 130 boreholes in seven (7) regions. It also ensured the coordination of sanitation facilities and implementation of community led total sanitation (CLTS).

• The performance of the key WASH indicators in the country

About 50 % of households countrywide have no toilet facilities (uses bush, riverbeds, and fields). This is worse in rural areas with 70% having no toilet facilities compared to urban areas (26%). Access to sanitation is 46% nationally, but 67% in urban areas and 21% in rural areas. 92.9% of households in Namibia have access to safe water for drinking, up from 80% in 2011. Almost all households (99.6%) in urban have access to safe water, with 40% and 31.9% of the households having access to piped water inside and piped water outside respectively. 85% of rural households have access to safe water. The region with the lowest percent of household with access to safe water was Kunene region with 74.6 percent. This region also recorded the highest percent (15.8%) of households who drew water from borehole with uncovered tank and unprotected wells.

• WASH and NTD intervention integration

The national situation on WASH needs to be addressed to effectively contribute towards the fight against NTDs. This implies a more effective collaboration with the Ministry of Agriculture, Water and Land Resources through the National Water and Sanitation (WATSAN) Forum /Committee

• Coordination of WASH and NTD partners

MAWLR coordinates the WASH initiatives through the National Water and Sanitation (WATSAN) Forum/Committee at national level and Regional WATSAN Forums/Committees in each region. The forums/committees are comprised of members from different institutions. The National WATSAN Forum adopted the Community/School Led Total Sanitation (CLTS/SLTS) approach in in the fight against open defecation and poor sanitation in the country. CLTS/SLTS teams made up of stakeholders/institutions

<sup>&</sup>lt;sup>3</sup> WHO. Water sanitation and hygiene for accelerating and sustaining progress on neglected tropical diseases. A global strategy 2015-2020. Available at: <u>https://apps.who.int/iris/bitstream/handle/10665/182735/WHO\_FWC\_WSH\_15.12\_eng.pdf?sequence=1</u>. Accessed on August 1, 2020.

have been established and trained to lead the elimination process for Open Defecation in 7 regions namely: Ohangwena, Oshana, Omusati, Oshikoto, Kavango East and West and Zambezi regions. CLTS/SLTS teams will be established and trained to eliminate Open Defecation in the remaining regions.

#### PHARMACOVIGILANCE

• Role, mandate, and position within the government of the pharmacovigilance authority

The Therapeutics Information and Pharmacovigilance Centre (TIPC) is the Namibia Medicines Regulatory Council's administrative and technical arm which carries out pharmacovigilance activities in ensuring ensure safe and rational use of drugs.

• Responsibility of pharmacovigilance authority for investigating and reporting serious adverse events (SAEs)

This vigilance system focuses on investigating and monitoring adverse events (AEs) after use of medicinal products. Pharmacovigilance is critical as it ensures that rare events which occur after use of medicinal products are appropriately monitored as well as long-term safety of drugs, particularly in specific populations and situations that are excluded in pre-marketing studies. Underlying this is the significance of appropriately collecting and reporting safety data to provide information for clinical and regulatory decision-making. In addition, detection of medication errors is reported. The ADR reports received by the Therapeutic Information and Pharmacovigilance Centre (TIPC) are entered into the WHO's global database (VigiBase) and analysed periodically to identify any safety signals.

• Awareness of agreed-upon processes and procedures for responding to SAEs

Various tools and processes for monitoring and responding to SAEs are in place, and awareness on their use is being created among health professionals and the general public. However, this is being hampered due to inadequate human resources (professional personnel to conduct appropriate investigations), poor use of existing tools and financial constraints. To improve reporting that will engender real-time response TIPC is developing an electronic-based reporting system.

• Mutual opportunities for collaborating with Pharmacovigilance centres on planning for safe preventive chemotherapy; goal-setting; establishing processes for SAE management and investigation; risk communication, and training all stakeholders to respond to SAEs.

Given the SAEs that were reported in 2019 following SCH MDA and in the light of the recommendations of the investigative team there is need for the NTD Programme to collaborate with TIPC in the following areas:

- o Collection and Use of Adverse Events Data from mass drug administration campaigns
- Planning and Implementing focus-oriented and targeted preventive chemotherapy campaigns, with strengthened medicine safety assurance procedures
- Strategic communication in the light of adverse events to restore confidence in preventive chemotherapy interventions
- o Training of all stakeholders on appropriate and timely response to SAEs

NTD	Date progra mme started	Total health districts targeted	No. health districts covered (geographi cal coverage*)	Total population in target district	No. (%) Covered	No.(%)dist ricts with required number of effective treatment rounds	No.(%) district s that have stoppe d MDA	Key strate gies used	Key partners	
LF	NA	NA	NA	NA	NA	NA	NA	NA		
Oncho	NA	NA	NA	NA	NA	NA	NA	NA		
SCH	2015	19	15	698,705	133,382 (19%)		Nil	MDA, WASH	Ministry Education	of
STH	2015	23	15	294,372	159,478 (54%)		Nil	MDA, WASH	Ministry Education	of
TRA	Not started									
Leprosy										
Dracunculiasis					NA	NA	NA	Surveilla nce		
HAT										

### Table7: Summary of intervention information on existing NTD programmes

\*Geographical coverage = No. of districts covered by the programme / Total no. of endemic districts in the country

#### Section 1.5: Building on NTD Programme Strengths

From the analysis on data on country profile, health system, and NTD programme status, a SWOT analysis has been conducted and information summarized in the table below.

#### **1.5.1.** Opportunities and Threats

Opportunities and threats are external- things that are going on outside the programme or ministry of health. It is recognized that one can take advantage of opportunities and protect against threats, but they can't be changed. The opportunities and threats are presented in table --- below.

#### 1.5.2. Strengths and Weaknesses

Strengths and weaknesses are internal to the programme or ministry of health—things that the Programme has some control over and can change. The strengths and weaknesses are presented in table 6 below

Strengths	Opportunities				
<ul> <li>Functional health system.</li> <li>Political will for prevention and elimination of NTDs</li> <li>Availability of policy frameworks - National Health Policy, WASH policy</li> <li>Provision of free health services including patients with NTDs</li> <li>Existence of other health delivery platforms including schools, outreach services, and community health services programme</li> <li>One health platform hosted by MAWLR focusing on rabies</li> <li>Existing Multisector TWG on one health concept for antimicrobial resistance</li> </ul>	<ul> <li>Donor support available (WHO-ESPEN, UNICEF, Pharmaceutical companies etc)</li> <li>Presence of academic institutions (UNAM, Polytechnic) and local laboratories (NIP)</li> <li>Implementation of WASH project by stakeholders</li> <li>Existence of Community Health Workers (CHW) for mobilization and referrals.</li> <li>Availability of partners supporting some components of NTDs</li> <li>Annual cross-border meeting with neighbouring countries</li> <li>Availability of infrastructure and communication technology</li> <li>International and regional commitments</li> </ul>				
<ul> <li>Weaknesses</li> <li>Absence of a clear NTD programme structure at national and sub-national levels</li> <li>No dedicated NTD budget line</li> <li>Lack of national policies and guidelines on NTDs.</li> <li>Inadequate public awareness on NTDs</li> <li>Inadequate data on the endemicity and distribution of most NTDs</li> <li>Inadequate capacity at all levels</li> <li>Lack of ownership at subnational level (Region and districts)</li> <li>Lack of a community engagement strategy.</li> <li>Limited collaboration among NTDs stakeholders and intersectoral collaboration</li> <li>Stock outs of supplies and essential medicines</li> </ul>	<ul> <li>Threats</li> <li>Existing harmful traditional practices and misconceptions on some NTDs</li> <li>Stigma and discrimination against people affected by NTDs</li> <li>Cross-border movement and internal population movement</li> <li>Food insecurity</li> <li>Climate change</li> <li>Emerging and re-emerging diseases</li> <li>Economic slow down due to covid -19</li> <li>Lack of regulation of slaughterhouses</li> <li>High staff turnover at all levels</li> <li>Competing priorities</li> <li>Inactive School Health Programmes</li> <li>Absence of clear sustainable funding mechanisms for the control and elimination of NTDs</li> </ul>				

Table 8: SWOT analysis

# 1.5.3. Gaps and priorities

Based on the SWOT Analysis, the major gaps and priorities for the formulation of the strategic objectives have been itemized which will enable the country to achieve the 2030 goal of eliminating the targeted NTDs. Additionally, the priorities in strengthening control of NTDs in the country have been listed, categorized according to the heads: *Planning, Coordination and Management, Partnerships, Implementation of interventions, Surveillance, Monitoring, and Evaluation.* The items listed in this SWOT analysis have been taken into consideration when defining activities to be implemented in the subsequent sections.

	Gaps
Planning	Lack of national policies and guidelines on NTDs
Coordination and	No clear programme structure
Management	Inadequate coordination mechanisms
Partnerships	Limited stakeholders' engagement and involvement
Implementation of	Inadequate capacity at all levels
interventions	Inadequate funding for NTD programmes/activities
Surveillance,	Limited understanding of the burden of NTDs in the country
Monitoring, and Evaluation	Absence of integrated and streamlined reporting for NTDs
	Weak surveillance for most NTDs
	Priorities
Planning	Develop appropriate policies and guidelines on NTDs
Coordination and	Establish and strengthen coordinating mechanisms
Management	Streamline the NTD Programme structure and establish an official NTD Secretariat appropriately equipped with key human resources
Partnerships	Stakeholders mapping and engagement
Implementation of interventions	Build capacity at various levels and advocate for improved human resources for health
	Develop and implement an advocacy strategy for sustainable funding of NTD programme activities
Surveillance,	Comprehensive mapping of all NTDs suspected to be endemic in Namibia
Monitoring, and Evaluation	Develop and implement an NTD M&E framework and tools
	Strengthen existing surveillance systems

#### Table 9: Gaps and priorities

# **PART 2** Strategic Agenda: Purpose and Goals

This section provides an overview of the targets and milestones for all NTDs that are endemic in Namibia, currently determined through consultation with key stakeholders in the country (representatives from central and sub-national governments, scientific and research groups, non-governmental organizations, implementing partners, donors and private sector organizations), as well as desk review that includes information from the national DHIS2 platform. This strategic agenda of the Namibia national NTD programme articulates the overall programme vision, mission, and goals. It also delineates the strategic goals, major programme focus, and strategic milestones. Additionally, the strategic priorities reflected indicate the main 'pillars of excellence' and mirrors the continuous improvement objectives that the country NTD programme seeks to achieve during the life cycle of the master plan.

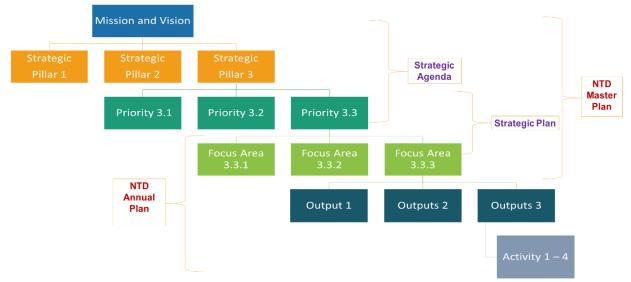


Fig 6. Hierarchy of objectives for the Namibia national NTD programme

# Section 2.1: NTD Programme Mission and Vision

The NTD Master Plan, as a multi-year strategic plan, requires a clear strategic agenda. The major elements of the strategic agenda are: Mission, Vision, Guiding principles, Programme Strategic Priorities and Pillars.

Table 10. Mission and vision					
Mission					
What we exist to do	To eliminate NTDs as a public health problem in Namibia				
Vison					
Where we need to go	A Namibia free of Neglected Tropical Diseases				

# **Section 2.2: Milestones and Targets**

The section reflects the overarching and cross-cutting targets which have been derived from the NTD Global Roadmap 2021–2030. It is anticipated that they will help improve integration, coordination, country ownership and equity. Targets for sectors such as WASH, safety, and vector control have been based on established targets, where available. Disease-specific targets for 2027 and milestones for 2023 to 2027 have been set for each of the endemic diseases based on their categorization as being for: eradication, elimination (interruption of transmission), elimination (as a public health problem) or control.

### 2.2.1. Targets

#### Overarching targets

The following are the overarching targets for the Namibian NTD Programme

Overarching targets

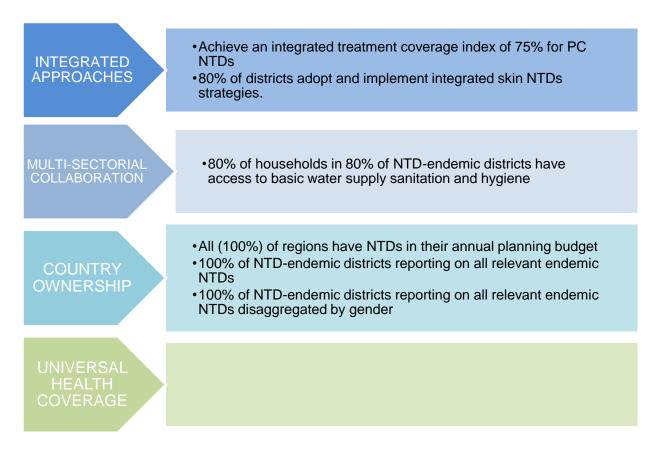
By 2027 in the country:

- Eradicated yaws
- Eliminated transmission of leprosy
- Eliminated soil transmitted helminthiases as a public health problem (currently defined as <2% proportion of soil-transmitted helminthes infections of moderate and heavy intensity due to *ascaris, trichuris, necator,* and *ancylostoma*) in 50% of endemic health districts
- Eliminated schistosomiasis as a public health problem (currently defined as <1% proportion of heavy intensity schistosomiasis infections) in 60% of endemic health districts
- 30% fewer people require interventions against NTDs

The overarching targets above and the cross-cutting targets below have been derived from the NTD Roadmap 2021–2030 to help improve integration, coordination, country ownership and equity.

#### Cross-cutting Targets

The figure below shows the cross-cutting targets the country intends to achieve by 2027



#### Fig 7. Cross-cutting targets

#### Disease-Specific Targets

The following disease-specific targets have been set being derived from the NTD Global Roadmap 2021–2030, page 16)<sup>4</sup>:

Table 11. Disease-Specific Targets

National target	Disease	Objective	Year	Strategies
Targeted for eradication	Dracunculiasis	Namibia is certified free of transmission	2027	Case containment, community-based prevention.
	Yaws	All endemic districts interrupt transmission	2027	MDA with AZT; case management

<sup>&</sup>lt;sup>4</sup>WHO. Ending the neglect to attain the Sustainable Development Goals: a road map for neglected tropical diseases 2021–2030. Available at <u>https://www.who.int/neglected\_diseases/Revised-Draft-NTD-Roadmap-23Apr2020.pdf</u>. Accessed on July 21, 2020.

Targeted for Elimination (Interruption of	limination Trypanosomiasis transmission nterruption of ( <i>Gambiense</i> )		2027	Case containment, community-based prevention.
Transmission)	Leprosy	All endemic health districts achieve zero new autochthonous leprosy cases Reduce new leprosy cases with G2D to less than one case per million population	2027	Active surveillance, contact tracing, case management, rehabilitation.
	Onchocerciasis (not requiring mass treatment)			
Targeted for elimination as a public health problem	Lymphatic filariasis	All endemic districts report below transmission assessment survey thresholds	2027	Mass Drug Administration, MMDP & Vector control.
	Human African Trypanosomiasis ( <i>Rhodesiense</i> )	All endemic districts achieve <1 cases/10,000 persons/year	2027	Case containment, community-based prevention
	Leishmaniasis (Visceral)	All endemic districts achieve <1% case fatality rate due to primary VL)	2027	Case containment, community-based prevention
	Schistosomiasis	60% of endemic districts achieve <1% proportion of heavy intensity schistosomiasis infections)	2027	Mass Drug Administration, WASH & case management for FGS
	Soil Transmitted Helminthiases	50% of endemic districts achieve <2% proportion of soil-transmitted helminths infections of moderate and heavy intensity due to Ascaris lumbricoides, Trichuris trichuria, Necator americanus and Ancylostoma duodenale)	2027	Mass Drug Administration, WASH
	Trachoma	All endemic districts achieve (i) a prevalence of trachomatous trichiasis of <0.2% in ≥15-year-olds; and (ii) a prevalence of trachomatous inflammation—follicular in children aged 1–9 years of <5%	2027	SAFE with other WASH components
	Rabies	All (100%) of health districts achieve zero human deaths from rabies	2027	Case containment, community-based prevention
Targeted for control	Leishmaniasis (cutaneous)	In all (100%) endemic districts 85% of all cases are detected and reported; and 95% of reported cases are treated	2025	Active surveillance, case management.
	Echinococcosis	All (100%) hyper-endemic health districts implement intensified control	2027	Case containment, community-based prevention
	Buruli Ulcer	Proportion of cases in category III (late stage) at diagnosis 100% of health districts have surveillance systems in place and are reporting on BU	2027	Case containment, community-based prevention

Foodborne Trematodiases	All (100%) hyper-endemic health districts implement intensified control	2027	Case containment, community-based prevention
Mycetoma	100% of health districts have surveillance systems in place and are reporting on mycetoma	2027	Case containment, community-based prevention
Scabies	100% of endemic health districts have at least 80% of health facilities implementing scabies management protocols	2027	Case containment, community-based prevention
Snakebite envenoming	Reduce mortality from snake bite by 70%	2027	Case containment, community-based prevention
Taeniasis/ Cysticercosis	100% of health districts with intensified control in hyperendemic areas	2027	Case containment, community-based prevention

#### 2.2.2. Milestones

In order to achieve the overarching, cross-cutting and disease-specific targets as set forth in this strategic plan and given the progress so far made as elucidated in the fore-going sections a number milestones should be undertaken. These disease specific milestones are reflected in table 10.

#### Table 12. Milestones for targeted NTDs

#### Table 12a. Milestones for targeted NTDs (Trachoma)

Indicators	2023	2024	2025	2026	2027
Conducted mapping of trachoma and determined trachoma endemic areas (health districts) and the population at risk	50%	100%		_	
Begun implement SAFE strategy in IUs requiring interventions	30%	60%	100%		
Geographical coverage in trachoma of SAFE strategy	30%	60%	100%		
Proportion of IUs (health districts) requiring 1 round of treatment with coverage more than 75%	50%	70%	100%		
Proportion of IUs requiring 3 rounds of treatment with coverage more than 75%	50%	70%	100%		
Proportion of IUs conducted first impact assessment after 1 or 3 rounds of MDA	0%	30%	45%	70%	100%
Proportion of IUs that passed impact assessment	0%	30%	45%	70%	100%
Proportion of IUs that started passive surveillance	0%	0%	30%	45%	70%
Proportion of IUs where there is full coverage of morbidity- management services	0%	30%	45%	70%	100%
Proportion of Target districts achieved elimination of blinding trachoma	0%	0%	45%	70%	100%

Indicators	2023	2024	2025	2026	<b>5 202</b>
Completed mapping of SCH and determined SCH endemic areas and the population at risk					
Begun implement SCH MDA in IUs (health districts) requiring SCH MDA	80%	100%			
Geographical coverage in SCH-endemic areas (health districts) of SCH MDA	80%	100%			_
Percentage of low endemic IUs that conducted more than 3 rounds of MDA with coverage more than 75%	0%	0%	0%	100%	
Percentage of moderate - highly endemic IUs conducted more than 5 rounds of MDA with coverage more than 75%	0%	0%	0%	0%	0%
Number of IUs with full coverage of WASH interventions.	0%	20%	40%	60%	80%
Percentage of IUs conducted first impact assessment after at least 3 rounds of MDA.	0%	0%	0%	0%	60%
Number of IUs conducted first impact assessment at least 5 rounds of MDA.	0%	0%	0%	0%	0%
Endemic IUs achieving moderate morbidity control	0%	0%	0%	30%	80%
Endemic IUs achieving advanced morbidity control	0%	0%	0%	0%	60%
Endemic IUs achieving elimination of transmission	0%	0%	0%	0%	50%

Table 12c.Milestones for targeted NTDs (Soil Transmitted Helminths)	
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Indicators	2023	2024	2025	2026	<b>5 2027</b>
Completed mapping of STH and determined STH endemic areas and the population at risk	100%				
Begun implement STH MDA in IUs (health districts) requiring SCH MDA	80%	100%			
Geographical coverage in STH-endemic areas (health districts) of STH MDA	80%	100%			
Percentage of low endemic IUs that conducted more than 3 rounds of MDA with coverage more than 75%	0%	0%	0%	100%	
Percentage of moderate - highly endemic IUs conducted more than 5 rounds of MDA with coverage more than 75%	0%	0%	0%	0%	0%
Number of IUs with full coverage of WASH interventions.	0%	20%	40%	60%	80%
Percentage of IUs conducted first impact assessment after at least 3 rounds of MDA.	0%	0%	0%	0%	50%
Number of IUs conducted first impact assessment at least 5 rounds of MDA.	0%	0%	0%	0%	0%
Endemic IUs achieving moderate morbidity control	0%	0%	0%	30%	60%
Endemic IUs achieving advanced morbidity control	0%	0%	0%	0%	50%
Endemic IUs achieving elimination of transmission	0%	0%	0%	0%	50%

Table12d.MilestonesfortargetedCM-NTDs(FGS,Trachoma,Rabies,Yaws,Scabies,Taeniasis/Cysticercosis,Snakebite,Leishmaniasisand Mycetoma)

Indicators	2023	2024	2025 20	)26	2027
Active case detection in highly endemic IUs	50%	75%	100%		
Passive case detection in other endemic IUs	20%	50%	75%	100%	
Manage all patients in peripheral health facilities	30%	50%	75%	100%	
Refer <u>all</u> severe and complicated cases for management at district hospitals and reference centres	30%	50%	75%	100%	
Achieved 100% treatment coverage of identified yaws cases in endemic health districts	0%	30%	60%	100%	
Achieved 100% treatment coverage of identified leprosy cases in leprosy-endemic health districts	0%	30%	50%	75%	100%
Achieved 100% treatment coverage of identified cases of scabies in endemic health districts	0%	30%	50%	75%	100%
Achieved 100% treatment coverage of identified cases of taeniasis/cysticercosis in endemic health districts	0%	30%	50%	75%	100%
Achieved 100% coverage of identified surgical trachoma cases in endemic health districts	0%	0%	50%	75%	100%
Achieved 100% treatment coverage of identified cases for other CM-NTDs (Leishmaniasis, mycetoma, FGS, snakebite)	0%	30%	45%	70%	100%
Started passive surveillance in target IUs for CM- NTDs targeted for elimination	0%	0%	40%	80%	100%
Started sentinel site surveillance in target IUs for CM-NTDs targeted for elimination	0%	30%	45%	80%	100%
Started passive surveillance in target IUs for other CM-NTDs	0%	0%	30%	40%	50%

# **Section 2.3: Guiding Principles**

Table 13. G	uiding principles
Guiding principles	<ul> <li>All Namibians have the right to enjoy good health through access to primary care and referral level services according to need</li> <li>Affordability, equity, and fairness in provision of health and social welfare</li> </ul>
	<ul> <li>services</li> <li>National leadership and ownership,</li> <li>Intersectoral collaboration</li> </ul>
	<ul> <li>Attention to gender issues and other social determinants</li> <li>Mutual accountability of national authorities and partners, transparency, and accountability,</li> </ul>
	<ul> <li>Empowerment of the Namibian people to promote good health and prevent ill health</li> </ul>

• Safety: 'Do no harm' while providing health benefits

The guiding principles above constitute the broad philosophy that encompass the beliefs and values of the government which will guide the programme throughout its life in all circumstances, irrespective of changes in its goals, strategies or type of work. They create a programme culture where everyone understands what's important.

# Section 2.4: Strategic Pillars and Strategic Objectives

#### 2.4.1. Programme Strategic Pillars

The Strategic Pillars reflects the 4 strategic areas which the Namibian government has adopted for a successful NTD programme implementation. The figure below shows how the programme strategic pillars have been structured.

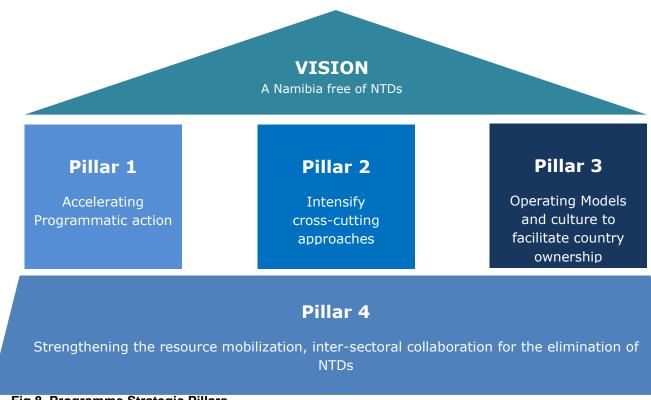


Fig 8. Programme Strategic Pillars

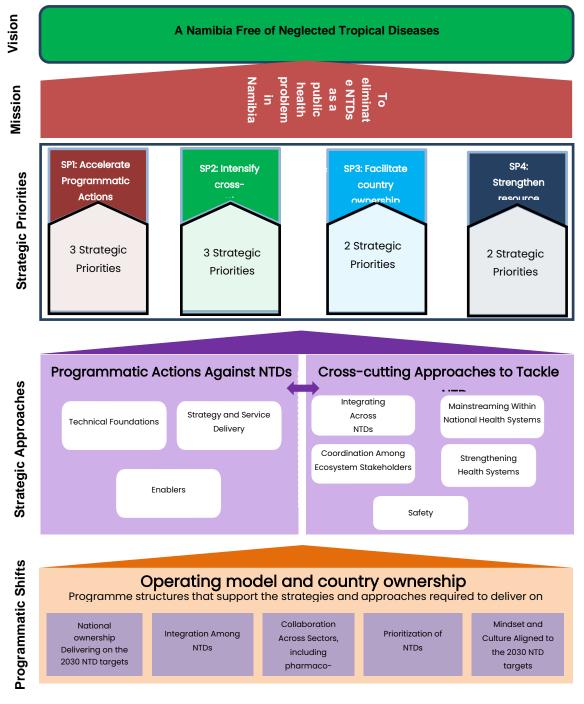
# 2.4.2. Strategic Priorities

Strategic priorities are the big-picture objectives for the programme: they describe what the programme will do to try to fulfil its mission. Refer the 2030 NTD Roadmap page 13 Figure 5

Strategic Pillar	Strategic priorities
Pillar 1. Accelerating	Scale up integrated preventive chemotherapy to achieve
programmatic action	100% geographic coverage and treatment access to lymphatic filariasis and Onchocerciasis.
	Prioritize and strengthen monitoring and evaluation to track progress and decision making towards the 2030 goals
	Ensure timely, safe, and effective supply chain management of quality- assured NTD Medicines and other products up to the last mile
Pillar 2. Intensify cross- cutting approaches	Strengthen identified platforms with similar delivery strategies and interventions (MDAs, skin NTDs, Morbidity management, SBCC, WASH etc) for integrated approaches across NTDs
	Mainstream delivery platforms within the national health system
	Integrate safety across NTD planning, implementation, and monitoring
Pillar 3. Operating Models and culture to facilitate country ownership	Promote and strengthen country ownership and leadership through organizational structures at national and local government with dedicated funding
	Empower local government and authorities in social mobilization, risk and crisis communication, behavioural change and building local support for NTD interventions
Pillar 4. Strengthen Resource	Promote community involvement and ownership of the program for optimal use of available resources
Mobilization, Coordination and Communication for the elimination of NTDs	Promote improved communication and awareness at the community level for a successful elimination of the endemic NTDs.

#### 2.4.3Programme Strategic Agenda Logic Map

The below figure maps out logically how the programme is working and how it is inter-related. It follows the example of the logic map in the WHO Thirteenth General Programme of Work 2019–2023 (GPW 13)Pg 4<sup>5</sup>



#### Fig 9. Programme Strategic Agenda Logic Map

<sup>&</sup>lt;sup>5</sup>WHO. Thirteenth General Programme of Work 2019–2023. Page 4. Available <u>https://apps.who.int/iris/bitstream/handle/10665/324775/WHO-PRP-18.1-eng.pdf</u>

# **PART 3** Implementing the Strategy: NTD Operational Framework

In line with the 2021- 2030 NTD Global Roadmap, this strategic plan is geared towards ensuring three fundamental shifts in the approach to tackling NTDs: **first**, increase accountability for impact by using impact indicators instead of process indicators, as reflected by the targets and milestones in Part II and accelerate programmatic action; **secondly**, move away from siloed, disease-specific programmes by mainstreaming programmes into national health systems and intensifying cross-cutting approaches centred on the needs of people and communities: and **thirdly**, change operating models and culture to facilitate greater ownership of programmes by countries. In this section the key activities by strategic priorities are presented as well as the programme structure.

# Section 3.1: Strategic priorities and Key Activities

Activities	Time frame	Resources needed		
Pillar 1: Accelerate programmatic Action	Pillar 1: Accelerate programmatic Action			
Strategic priority 1: Initiate and scale up in	Itegrated preven	tive chemotherapy (STH, SCH, TRA, LF,		
	aphic coverage	and treatment access to case management		
NTDs				
Identify PC-NTDs mapping needs	2023	Technical Assistance (TA)		
		Funds		
		Personnel		
Develop/Adapt mapping protocols for	2023	Technical Assistance (TA)		
PC-NTDs (Trachoma, Taeniasis, LF,		Funds		
Oncho)		Logistics/ Materials		

		Personnel
Procure appropriate diagnostic kits and supplies	2023 – 2024	Technical Assistance (TA) Funds Logistics/ Materials Personnel
Build capacity for mapping of PC-NTDs	2023 – 2024	Technical Assistance (TA) Funds Logistics/ Materials Personnel
Conduct integrated mapping/stand- alone mapping for PC-NTDs	2023 – 2024	Technical Assistance (TA) Funds Logistics/ Materials Personnel
Determine endemicity status for each PC-NTD and identify areas for intervention based mapping outcomes	2023 – 2024	Funds Logistics /Materials Personnel
Develop/Adapt/Review MDA guidelines for the planned interventions	2023 – 2024	Technical Assistance (TA) Funds Logistics/ Materials Personnel
Conduct training of trainers at national level for MDA	2023 – 2027	Technical Assistance (TA) Funds Logistics/ Materials Personnel
Capacity building for all Environmental health practitioners from MOHSS and MURD in NTDs	2023 – 2024	Funds Logistics/ Materials Personnel
Conduct step-down training at sub- national levels	2023 – 2027	Funds Logistics/Materials Personnel
Conduct training for community-level/ school-based interventions	2023 – 2027	Funds Logistics/Materials Personnel
Implement integrated school-based intervention	2023 – 2027	Funds Logistics/Materials Personnel
Implement integrated community-based interventions including provision of food and supplements (e.g. iron and vitamin A) to combat common side-effects of NTDs, such as anaemia and nutritional impairment	2023 – 2027	Funds Logistics/Materials Personnel
Conduct active case finding for CM NTDs including leprosy, rabies, snake bites, scabies, Yaws, and female genital schistosomiasis	2023 – 2027	Technical Assistance (TA) Funds Logistics/ Materials Personnel
Increase passive case identification, referral and management through training	2023 – 2027	Funds Logistics/ Materials Personnel

Develop and produce guidelines for	2023 – 2025	Technical Assistance (TA)
integrated skin NTD management		Funds
		Logistics/ Materials Personnel
Review/Develop/Adapt and produce	2023 – 2025	Funds
guidelines for management of other CM/ NTDs including finalization of Integrated		Logistics/ Materials Personnel
Case Bite Management (IBCM) protocol		
Disseminate and distribute appropriate	2023 – 2025	Funds
guidelines on CM/NTDs to regional and district levels		Logistics/ Materials Personnel
Train targeted HWs on integrated skin	2023 – 2027	Technical Assistance (TA)
NTD management		Funds Logistics/ Materials
		Personnel
Capacity building of all health workers	2023 – 2027	Technical Assistance (TA)
on snake bite and rabies case management		Funds Logistics/ Materials
		Personnel
Train all health workers and	2023 – 2027	Funds
Veterinarian officials on the use of IBCM tools		Logistics/ Materials Personnel
Targeted training of HWs on	2023 – 2027	Funds
management of other CM NTDs	2020 2021	Logistics/ Materials
		Personnel
Train regional/local snake handlers to reduce snakebite accidents	2023 – 2027	Funds Logistics/ Materials
		Personnel
Promote and intensify eye health	2023 – 2027	Funds
focusing on promotion of eye care, e.g. face-washing, protecting eyes and eye		Logistics/ Materials Personnel
examinations as well as provision of		r eisonnei
treatment for eye conditions related to		
NTDs, including surgery when required		
<b>Strategic priority 2:</b> Prioritize and strengthen monitoring and evaluation to track progress and decision making towards the NTD Master Plan 2027 targets		
Establish Monitoring and evaluation task	2023	Personnel
team Develop comprehensive programme	2023	Technical Assistance (TA)
M&E framework		Funds
		Logistics/ Materials Personnel
Establish NTD database that is	2024 – 2006	Technical Assistance (TA)
automated and linked to the DHIS2		Funds
		Logistics/ Materials Personnel
1	1	

Dovelop/Roview M&E tools (reporting	2022 2024	Funds
Develop/Review M&E tools (reporting	2023 – 2024	Funds
forms, registers, cards, etc)		Logistics/ Materials
• · · · · · · · · · · · · · · · · · · ·		Personnel
Conduct training of trainers on use of	2023 – 2027	Funds
M&E tools		Logistics/ Materials
		Personnel
Conduct step-down training at sub-	2023 – 2027	Funds
national level on use of M&E tools		Logistics/ Materials
		Personnel
Conduct programme performance mid-	2025	Funds
term review		Logistics/ Materials
		Personnel
Develop/Adapt protocols for disease-	2024 – 2025	
	2024 – 2025	Technical Assistance (TA)
specific & integrated impact assessment		Funds
		Logistics/ Materials
		Personnel
Procure materials, diagnostics and	2025 – 2027	Funds
supplies for disease-specific impact		Logistics/ Materials
assessment		Personnel
Build capacity at national level on	2025 – 2027	Technical Assistance (TA)
impact assessment for targeted NTDs		Funds
1		Logistics/ Materials
		Personnel
Conduct impact assessment	2025 – 2027	Technical Assistance (TA)
Conduct impact assessment	2023 - 2021	Funds
		Logistics/ Materials
		Personnel
Advocate for update of the existing	2023 – 2024	Personnel
notifiable diseases to include snakebite		
Advocate for integration of all NTDs into	2023 – 2025	Personnel
the IDSR reporting system.		
Advocate for integration of NTDs into	2023 – 2025	Personnel
DHIS or HIS routine data collection and		
analysis.		
-	0000 0007	
Collect, collate, produce and share	2023 – 2027	Funds
consolidated report to policy makers		Logistics/ Materials
and key stakeholders		Personnel
Build local capacity for timely detection	2023 - 2027	Funds
and response to outbreak prone NTDs		Logistics/ Materials
		Personnel
Enhance capacity of laboratories to	2023 – 2027	Funds
improve optimum diagnosis of NTDs		Logistics/ Materials
		Personnel
Dovolop/Adapt/Poviow ovportigony plan	2022 2027	Funds
Develop/Adapt/Review supervisory plan	2023 – 2027	
and checklists		Logistics/ Materials
<b>A</b>		Personnel
Conduct annual supervisory visit to	2023 – 2027	Funds
assess the implementation of		Logistics/ Materials
		Personnel

interventions including usage of guidelines at facilities		
Monitor WASH implementation in all NTD endemic districts	2023 – 2027	Funds Logistics/ Materials Personnel
Conduct operational research on NTDs	2023 – 2027	Funds Logistics/ Materials Personnel
Improve and strengthen collaboration with Research Institutions on NTDs	2023 – 2027	Funds Logistics/ Materials
operational and pure research	ofe and offectiv	Personnel
NTD Medicines and other products up		ve supply chain management of quality-assured
Determine drug needs based on mapping outcomes	2023 – 2024	Personnel
Set up a supply chain management system for NTD drugs/products/medicines for last mile distribution and reverse logistics	2023 – 2024	Funds Logistics/ Materials Personnel
Complete the Joint Request Form (JRM) and other applications for needed drugs/ products/vaccines	2023 – 2027	Logistics/ Materials Personnel
Submit country request for the Free PC and Mass treatment drugs - PZQ for Schisto - ALB/MLB for STH - AZT/TEO for trachoma - Oxfendazole and albendazole for teniasis/cysticercosis and echinococcus control	2023 – 2027	Funds Logistics/ Materials Personnel
Submit country request for the Free CM drugs	2023 – 2027	Funds Logistics/ Materials Personnel
Procure and store NTD medicines and products	2023 – 2027	Funds Logistics/ Materials Personnel
Deliver NTD medicines and products to health facilities	2023 – 2027	Funds Logistics/ Materials Personnel
Advocate for integration of NTD drugs into the national system	2023 – 2024	Logistics/ Materials Personnel
Ensure appropriate storage, availability and timely access to Rabies PEP vaccines and Antivenoms in all health facilities (clinics etc).	2023 – 2027	Funds Logistics/ Materials Personnel
Advocate for the establishment of Immunoglobulin bank in Namibia	2023 – 2024	Logistics/ Materials Personnel
Support the establishment of regional antivenom banks	2023 – 2024	Logistics/ Materials Personnel

Pillar 2. Intensify cross-cutting approaches			
Strategic Priority 1: Strengthen identified platforms with similar delivery strategies and interventions			
(MDAs, skin NTDs, Morbidity management, SBCC, WASH etc) for integrated approaches across NTDs			
Identify and map platforms with similar delivery strategies and interventions (MDAs, skin NTDs, Morbidity management, SBCC, WASH etc) for integrated approaches across NTDs	2023 – 2024	Funds Logistics/ Materials Personnel	
Conduct sectoral advocacy and sensitization meetings at national and regional levels on NTDs	2023 – 2027	Funds Logistics/ Materials Personnel	
Advocate for budgetary provision for NTD related activities in the sectoral budgets and plans of relevant implementation stakeholders (MAWLR, METF, MURD, MOEAC, MICT)	2023 – 2027	Funds Logistics/ Materials Personnel	
Support improvement in animals' husbandry through farmer information days, farmers training and community awareness	2023 – 2027	Funds Logistics/ Materials Personnel	
Advocate for establishment of slaughtering slabs and meat inspections within municipal area	2023 – 2024	Funds Logistics/ Materials Personnel	
Support vaccination of ≥ 70% of dog population in high-risk areas through awareness creation	2023 – 2027	Funds Logistics/ Materials Personnel	
Advocate for provision of and access to improved/safe water supply in all NTD endemic areas.	2023-2027	Logistics/ Materials Personnel	
Advocate for construction of and improved access to sanitation facilities as well as safe management of fecal waste in all NTD-endemic areas especially in Kavango West, Ohangwena, Zambezi and Omusati regions	2023-2027	Logistics/ Materials Personnel	
Support WASH programme activities in NTD-endemic areas	2023-2027	Funds Logistics/ Materials Personnel	
Advocate for counselling and support to NTDs patients requiring psychosocial support including referral when necessary.	2023-2027	Logistics/ Materials Personnel	
Participate in technical working groups' meetings in relevant sectors (WASH, One Health, School Health, etc)	2023-2027	Funds Logistics/ Materials Personnel	

Promote integrated vector management especially environmental management especially with the Malaria Programme Support and provide for disability and morbidity management including provision of support services and	2023 – 2027 2023 – 2027	Funds Logistics/ Materials Personnel Funds Logistics/ Materials Personnel
devices, e.g. walking devices and prosthetics through inter-sectoral approaches		
Training for self-management of disability and self-care through inter- sectoral mechanisms	2023 – 2027	Funds Logistics/ Materials Personnel
Strategic Priority 2: Mainstream delivery p	latforms within t	he national health system
Present the NTDs Master Plan to the Ministerial Management Committee for buy-in and inclusion in the resource mobilization policy	2023	Logistics/ Materials Personnel
Develop NTD annual plans and integrate them into MoHSS annual plan and budgets	2023 – 2027	Logistics/ Materials Personnel
Integrate NTD as an agenda item in the annual cross border meetings Support integration of NTD activities into	2023 – 2027 2023 – 2027	Logistics/ Materials Personnel Funds
regional annual plans and budgets		Logistics/ Materials Personnel
Strategic Priority 3: Integrate safety a	cross NTD planr	
Advocate for improved funding for pharmacovigilance	2023 – 2027	Logistics/ Materials Personnel
Support Namibia Medicines Regulatory Authority in the areas of registration and Pharmacovigilance for both human and animal health medicines	2023 – 2027	Logistics/ Materials Personnel
Conduct orientation of health care professionals on pharmacovigilance for NTD medicines	2023, 2025, 2027	Funds Logistics/ Materials Personnel
Collect all data on Adverse Event following drug administration including MDA	2023 – 2027	Funds Logistics/ Materials Personnel
Conduct follow-up on those AEFI to determine the risk-benefit profile of medicine.	2023 – 2027	Funds Logistics/ Materials Personnel
Communicate finding of follow-up on those AEFI to the national Therapeutic Information Pharmacovigilance Center (TIPC)	2023 - 2027	Funds Logistics/ Materials Personnel
Support improvement and strengthening of pharmacovigilance data	2023 – 2027	Funds Logistics/ Materials

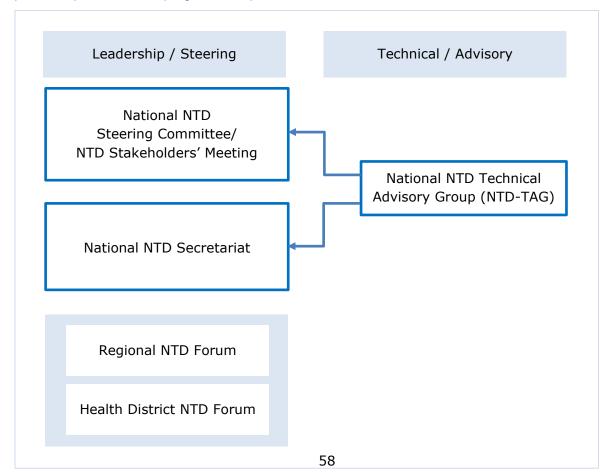
management, quality and reliability at district, regional and national level		Personnel
Pillar 3. Operating Models and culture	to facilitate cou	Intry ownership
		ership and leadership through organizational
structures at national and local governme		
Strengthen the NTD TWG with inclusion	2023	Personnel
of other relevant stakeholders		
Establish an NTD Steering Committee	2023	Personnel
Organize quarterly and bi-annual	2023 – 2027	Funds
meetings of TWG and Steering		Logistics/ Materials
Committee respectively		Personnel
Conduct annual stakeholders' meeting	2023 – 2027	Funds
on NTDs		Logistics/ Materials
		Personnel
Appoint NTDs focal persons at regional/	2023	Personnel
district levels	2020	
Create a budget line and allocate	2023	Personnel
fundings for NTDs in the MoHSS annual		
plan and budget		
Produce/Print and disseminate NTD	2023 – 2027	Funds
annual plans to all relevant stakeholders		Logistics/ Materials
		Personnel
Support regions to develop annual NTD	2023 – 2027	Funds
annual plans		Logistics/ Materials
		Personnel
Conduct annual planning and review	2023 – 2027	Funds
meetings at national and regional levels		Logistics/ Materials
		Personnel
Appoint national and regional NTD	2023 – 2024	Logistics/ Materials
ambassadors		Personnel
Advocacy visits to all Town councils to	2023 – 2024	Funds
enact byelaws in local authorities to		Logistics/ Materials
enforce meat inspections and		Personnel
vaccination of dogs and cats	2022 2027	
Commemorate the Global NTD Day and	2023 – 2027	IEC/Promotional Materials
incorporate NTD commemoration day		Refreshments
into annual stakeholders (ministerial)		Logistics NTD ambassador
calendars		Financial resources
Establish coordination mechanism on	2023 – 2024	Logistics/ Materials
One Health approach for all NTDs	2023 - 2024	Personnel
Engage various donors and partners to	2023 – 2027	Funds
mobilize funding for NTDs activities	2020 2021	Logistics/ Materials
mosmize running for the DS activities		Personnel
Strategic Priority 2: Empower local govern	ment and author	prities in social mobilization, risk and crisis
communication, behavioural change and		

Develop on CDC from every and plan for	0000 0004	Funda
Develop an SBC framework and plan for	2023 – 2024	Funds
NTDs including risk and crisis		Logistics/ Materials
communication		Personnel
Review existing IEC materials on NTDs	2023, 2026	Funds
		Logistics/ Materials
		Personnel
Develop and produce IEC materials	2023 – 2027	Funds
including translation in major local		Logistics/ Materials
languages (print, electronic and social		Personnel
		r eisonnei
media) for NTDs		
Conduct national ToT on social	2023 – 2027	Funds
mobilization, risk and crisis		Logistics/ Materials
communication for NTDs		Personnel
Conduct sub-national training on social	2023 – 2027	Funds
mobilization, risk and crisis		Logistics/ Materials
communication for NTDs		Personnel
	tion Coordinati	ion and Communication for the elimination
of NTDs		
	nvolvement and	ownership of the program for optimal use of
available resources		
Identify and map platforms to promote	2023 – 2027	Funds
community involvement and ownership		Logistics/ Materials
at various levels		Personnel
	0000 0004	
Develop a framework for community	2023 – 2024	Funds
involvement and ownership for NTDs		Logistics/ Materials
		Personnel
Conduct community advocacy	2023 – 2027	Funds
interactions with community leaders to		Logistics/ Materials
promote awareness and support		Personnel
Establish NTD Support Groups	2023 – 2027	Funds
Establish NTD Support Groups	2023 - 2027	
		Logistics/ Materials
		Personnel
Advocacy and sensitization visits to	2023 – 2027	Funds
Ministry of and traditional rulers'		Logistics/ Materials
meetings at regional levels		Personnel
Strategic Priority 2: Promote improved co	mmunication and	d awareness at the community level for a
successful elimination of the endemic NT		
Conduct KAP (Knowledge, Attitude and	2023, 2025,	Funds
Practice) study of community	2023, 2023, 2023, 2023,	Logistics/ Materials
awareness on NTDs		Personnel
Identify and map existing platforms to	2023 – 2024	Funds
promote awareness of NTDs at the		Logistics/ Materials
community level		Personnel
Conduct advocacy and sensitization	2023 – 2027	Funds
visits to key religious associations,	2020 - 2021	
professional bodies, school health		Logistics/ Materials
		Personnel
program authorities, Farmers		
Associations		
Incorporate relevant NTD messages	2023 – 2027	Funds
into existing channels for improved		Logistics/ Materials
		-

community engagement and sensitization (Religious leaders, Teachers and PTAs, CHWs, schools and farmers information day)		Personnel
Conduct periodic FGDs	2023 – 2027	Funds Logistics/ Materials Personnel
Conduct town hall meetings on NTDs	2023 – 2027	Funds Logistics/ Materials Personnel
Conduct Inter-personal communication (IPC) and women group sessions on NTDs	2023 – 2027	Funds Logistics/ Materials Personnel
Conduct awareness campaigns through print and electronic media including use of social media	2023 – 2027	Funds Logistics/ Materials Personnel
Conduct other awareness campaigns using traditional channels e.g. dance/theatre groups, town announcers, etc	2023 – 2027	Funds Logistics/ Materials Personnel

# Section 3.2: Toward Programme Sustainability: Intensifying Coordination and Partnerships

This section reflects the coordination mechanisms in the country in a bid to intensify coordination and partnerships for effective programme implementation.



### Fig 10. Programme coordination mechanism

Entity	Membership	Terms of Reference
National NTD Steering	Committee	
Meeting frequency: Bi- annual Chair: Executive Director, MoHSS Co-Chair: Executive Director, Ministry or Education, Arts & Culture Host: NTD Programme, MoHSS	University of Namibia Town Councils, Namibia Institute of Pathology Academia Namibia Red Cross Society	1. Oversee the development, implementation, monitoring and review of the country NTD master
National NTD Secretar	lat	1
	NTD Programme Manager Assistant NTD Programme Manager Disease-Specific Focal Points M&E focal point Technical officers Administrative staff	<ol> <li>Support the day-to-day operations of the national NTD programme.</li> <li>Follow up the implementation of follow up actions reached at Steering Committee and NTD TAG</li> <li>Provide administrative support to the other arms of the coordination body.</li> </ol>
National NTD Technica	al Advisory Group	1
Meeting frequency: <i>Quarterly</i>	NTD Programme Manager Assistant NTD Programme Manager Disease-Specific Focal Points	1. Support the monitor and evaluation of NTD programme interventions and operations.

	Special	M&E focal point	2. Review NTD programme and		
Programmes Host: MoHSS		Representatives of Ministry of Education, Arts and Culture; Ministry of Environment and Tourism; Ministry of Fisheries and Marine Resources; Ministry of Agriculture; University of Namibia; Namibia Institute of Pathology; Ministry of Gender Equality and Child Protection	operational research gaps.		
Regional NTD Se	ecretar	iat			
Meeting frequency: Λ			1. Support the day-to-day operations of the regional NTD programme.		
Chair: Regional Director Host: Regional	Health	Regional NTD Focal Point Assistant Regional NTD Focal Point Disease-specific FPs at regional level	2. Follow up the implementation of follow up actions reached at national level		
Programme			<ol> <li>Conduct periodic reviews, plan and implement NTD programmes a the regional level</li> </ol>		
District NTD Sec	retaria	ıt			
Meeting frequency: Λ	Aonthly		1. Support the day-to-day operations of the district NTD programme.		
Chair: District Director Host: District	Chair: District Health Director	Assistant District NTD Focal Point	<ol> <li>Follow up the implementation of follow up actions reached at national and regional levels</li> </ol>		
Programme		Disease-specific FPs at regional level	<ol> <li>Conduct periodic reviews, plan and implement NTD programmes a the district level</li> </ol>		

# Fig 11. Membership and Terms of Reference – Programme Coordination Mechanism

This section provides the partners in the country including the implementing partners, donors, private and public partnership, such as Ministry of Agriculture, Ministry of Education, Pharmacovigilance Center, or thematic partners such as One-Health partners or specific donors who are working in the different areas. (Refer Figure 18, 19, 22 and 23 of the NTD Roadmap)

#### Table 16. Partnership Matrix

Region	NTDs (List)	Veterinary (List)	WASH (List)	IVM (List)	One- Health (List)	Education (List)	Malaria (List)
Kharas		MoAWLR	MoE&T		MoAWLR, Snakebite Interest Group	MoEA&C	
Erongo		MoAWLR	MoE&T		As above	MoEA&C	
Hardap		MoAWLR	MoE&T		As above	MoEA&C	
Kavango- East		MoAWLR	MoE&T		As above	MoEA&C	
Kavango- West		MoAWLR	MoE&T		As above	MoEA&C	
Khomas		MoAWLR	MoE&T		As above	MoEA&C	
Kunene		MoAWLR	MoE&T		As above	MoEA&C	
Ohangwena		MoAWLR	MoE&T		As above	MoEA&C	
Omaheke		MoAWLR	MoE&T		As above	MoEA&C	
Omusati		MoAWLR	MoE&T		As above	MoEA&C	
Oshana		MoAWLR	MoE&T		As above	MoEA&C	
Oshikoto		MoAWLR	MoE&T		As above	MoEA&C	
Otjozondjupa		MoAWLR	MoE&T		As above	MoEA&C	

## Section 3.3: Assumptions, Risks and Mitigations

Risk is the process of examining how likely risk will arise in the implementation of NTD programme. It also involves examining how the programme outcome and objectives might change due to the impact of the risk. The impact could be in terms of schedule, quality and cost.

Risk mitigation is the process of developing options and actions to enhance opportunities and reduce threats to the programme objectives. Risk mitigation progress monitoring includes tracking identifiable risks, identifying new risks, and evaluation risk process effectiveness throughout the programme period.

The table below presents potential risks and mitigating measures

Table	17. Risk Crite	ria and Asse	essment					
Potential Risk	Before risk r	nitigation		Risk Mitiga	ation	After risk mit	tigation	
	Likelihood of occurrence	Impact	Score			Likelihood of occurrence	Impact	Score
	Certain =5 Likely =4 Possible =3 Unlikely =2	Severe =5 Major =4 Moderate =3	Likelihood x Impact			Certain =5 Likely =4 Possible =3 Unlikely =2	Severe =5 Major =4 Moderate =3	Likelihood x Impact

	Rare =1	Minor =2			Rare =1	Minor =2	
		Insignificant =1				Insignificant =1	
Risk Type: Natural	Disasters & Ep	oidemics					
Flooding	4	3	12	Advocate for dykes to be put on the riverbanks Advocate for WASH to provide clean drinking water Pay attention to displaced populations	2	2	4
Drought	4	2	8	Advocate for Humanitarian aid Nutrition Supplementation of micronutrients	4	1	4
Emerging Outbreaks	3	5	15	Reschedule non-emergency activities	3	3	9
Risk Type: Political							
Low political commitment to NTDs elimination	4	5	20	Strengthen advocacies to key government figures and institutions	3	3	9
Conflicts due to crises in-country or neighbouring countries	3	4	12	Pay attention to displaced populations or nomadic populations. Intensify cross- border collaboration. Work with broader range of partners particularly emergency and relief NGDOs	3	2	6
Risk Type: Program	nmatic						
High Staff turnovers	3	4	12	Build capacity of more staff on NTDS	3	2	6

				Advocate for incorporation of NTDs in Medical Training curriculum			
Inability to raise sufficient funding	5	5	25	Develop a resource mobilisation strategy for NTDs. Develop a business case based on value for money and what success looks like.	3	3	9
Occurrence of serious adverse events during SCH/ STH treatments due to Neurocysticercosis	4	4	16	Conduct mapping for Cysticercosis and deploy appropriate intervention methods before mass distribution	3	3	9
Inadequate numbers of trained health workers	4	3	12	Train more health workers Advocate for recruitment and appropriate deployment of human resource for health	3	2	6
Persistent high prevalence of SCH, STH or Trachoma in specific foci after repeated mass treatments	3	3	9	Engage with universities and research institutions. Support operational studies	2	2	4

Risk Rating (Likelihood x Impact)				
19 – 25 Severe				
13 – 18	Major			
7 – 12	Moderate			
0-6	Minor			

#### MITIGATION

Managing risk means mitigating the threats or capitalizing on the opportunities that uncertainty presents to expected results. Failure to identify risks and failures to come up with risk mitigation strategies can and do kill projects. If no mitigation strategy can help, then *change* your strategy and project approach.

Table 18: Steps to mitigate risk						
Avoid	Change plans to circumvent the problem					
Control	Reduce threat impact or likelihood (or both) through intermediate steps					
Share	Outsource risk (or a portion of the risk) to a third party or parties that can manage the outcome.					
Accept Assume the chance of the negative impact						
Monitor	Monitor and review process in which risk management is in place					

# Section 3.4. Performance and Accountability Framework

The table below reflects performance indicators, targets and date by strategic priority.

Performance Indicators	Targets	Time frame
Pillar 1: Accelerate programmatic Action		
<b>Strategic priority 1:</b> Scale up integrated preventive chemotherapy to and treatment access to Trachoma, LF, Oncho, SCH, STH).	o achieve 100% geograp	hic coverage
No of IUs with completed mapping of NTDs	35	2023
No of mapping protocols Developed/Adapted for PC-NTDs (Trachoma, Taeniasis, LF, Oncho, SCH, STH)	6, one per PC-NTD (Trachoma, Taeniasis, LF, Oncho, SCH, STH)	2023
Assorted diagnostic kits and supplies procured for mapping (Trachoma, Taeniasis, LF, Oncho, SCH, STH)	5, once per year	2023 – 2024
No of environmental health practitioners from MOHSS and MURD Trained in NTDs	200 (100 per year)	2023 – 2024
No of officers trained on PC-NTDs mapping (Trachoma, Taeniasis, LF, Oncho, SCH, STH)	250, five per district, five per region and five at national level	2023 – 2024
No of integrated mapping conducted for PC-NTDs	2 (SCH?STH; Oncho/LF)	2023 – 2024
No of stand-alone mapping conducted for PC-NTDs	1 (trachoma)	
Prevalence status for each PC-NTD in IUs determined	35	2023 - 2024
No of MDA guidelines adapted/reviewed for the planned interventions	6, per each PC-NTDs	2023 – 2024
No of training of trainers (TOTs) trained at national level for integrated MDA	60, three per region, and eighteen at National level	Annually
No of step-down training conducted at sub-national levels	49 (14, one per region; 35, one per district)	Annually
No of CHWs/Teachers trained for community-level (CHWs)/ school- based interventions	2500, two per school	Annually

No of annual integrated school-based MDA for PC-NTDs Implemented in the 14 endemic districts	2, one per year	Annually
No of persons reached with SCH MDA		Annually
No of persons reached with STH MDA		Annually
No of persons reached with Trachoma MDA		Annually
No of persons reached with Taeniasis MDA		Annually
No of persons reached with Zithromax for Yaws		Annually
No of active case finding/mapping conducted for CM NTDs	10 (for each CM per	Annually
No of passive case identification, referral and management through training conducted	district) 10 (for each CM per district)	Annually
Guideline developed and produced for integrated skin NTD	1	2023 – 2025
management		
Guidelines reviewed/developed/adapted and produced for management of other CM/ NTDs including finalization of Integrated Case Bite Management (IBCM) protocol	9	2023 – 2025
No of guidelines disseminated and distributed on CM/NTDs to regional and district levels	10	2023 – 2025
No of targeted HWs trained on integrated skin NTD management	140 (10 per region)	Annually
No of health workers trained on snake bite and rabies case	225 (5 per district; 2	Annually
management	per region, and 12 at national level)	
No of health workers and Veterinarian officials trained on the use of IBCM tools	225 (5 per district; 2 per region, and 12 at national level)	Annually
No of targeted of HWs trained on management of other CM NTDs	225 (5 per district; 2 per region, and 12 at national level)	Annually
No of regional/local snake handlers trained to reduce snakebite accidents	225 (5 per district; 2 per region, and 12 at national level)	Annually
Number of leprosy cases managed		Annually
Number of HAT cases managed		Annually
Number of Cysticercosis cases managed		Annually
Number of snake-bites cases managed		Annually
Number of human rabies cases managed		Annually
Number of scabies cases managed		Annually
Number of female genital schistosomiasis cases managed		Annually
Number of lymphoedema cases managed		Annually
Number of mycetoma cases managed		Annually
Number of trichiasis surgeries conducted		Annually
Number of hydrocele cases managed		Annually
Number of yaws cases managed		Annually
No. of community sensitization meetings on eye health focusing on promotion of eye care, e.g. face-washing, protecting eyes and eye examinations as well as provision of treatment for eye conditions related to NTDs, including surgery when required	2500 (500 annually)	Annually
No of IUs implementing integrated community-based interventions	35	Annually
Number of joint awareness campaigns conducted to livestock	35	Annually
keepers on (pigs, cattle) husbandry , feacal disposal, ofal disposal echinococcosis, Taeniasis		
No sensitization meetings targeting women-gender equity (including	35	Annually

Strategic priority 2: Prioritize and strengthen monitoring and evaluat	tion to track progress ar	nd decision
making towards the NTD Master Plan 2027 targets	1	
Monitoring and evaluation task team established	1	2023
Comprehensive programme M&E framework developed	1	2023
NTD database established that is automated and linked to the DHIS2	1	2024 – 2026
M&E tools (reporting forms, registers, cards, etc) developed/reviewed	15	2023 – 2024
No of training of trainers(TOTs) trainings conducted on use of M&E tools	2	2023
No of step-down trainings at conducted sub-national level on use of M&E tools	40	2023-2024
Programme performance mid-term review conducted	1	2025
No of developed/adapted protocols for disease-specific & integrated impact assessment	14	2024 – 2025
No of materials, diagnostics and supplies for disease-specific impact assessment procured	8 (one kit having all materials for each disease)	2025 – 2027
National level officers trained on impact assessment for targeted endemic NTDs	30	2025 – 2027
No of disease-specific impact assessment conducted	8	2025 – 2027
No of quarterly advocacy meetings held with key stakeholders for update of the existing NTDs in the country	4 annually	2023 – 2027
No of advocacy meetings held for integration of all NTDs into the IDSR reporting system.	4	2023
No of advocacy meetings held for integration of NTDs into DHIS or HIS routine data collection and analysis.	4	2023
No of quarterly consolidated reports collected, collated, produced and shared to policy makers and key stakeholders	4 annually	Annually
No of officers trained on timely detection and response to outbreak prone NTDs	500	Annually
No of National and sub-national laboratories fully equipped to optimum diagnosis of NTDs	36	Annually
No of laboratories staff trained to improve optimum diagnosis of NTDs	100	Annually
Support supervisory plan and checklists Developed/Adapted/Reviewed	1	Annually
No of annual supervisory visits to assess the implementation of interventions conducted	4	Annually
<b>Strategic Priority 3:</b> Ensure timely, safe, and effective supply chain r Medicines and other products up to the last mile	management of quality a	assured NTD
Drug needs determined based on mapping outcomes	1	2023
Supply chain management system set up for NTD drugs/products/medicines for last mile distribution and reverse logistics	1	2023 – 2024
The Joint Request Form (JRM) and other applications completed for needed drugs/ products/vaccines	1	Annually
Country requests submitted for the Free PC and Mass treatment drugs - PZQ for Schisto - ALB/MLB for STH - AZT for trachoma	5	Annually

	-	
<ul> <li>Oxfendazole and albendazole for teniasis/cysticercosis and echinococcus control</li> </ul>		
No of disease specific PC-NTD (Trachoma, Taeniasis, LF, Oncho, SCH, STH) medicines and products procured and stored	6	Annually
No of disease specific PC-NTD (Trachoma, Taeniasis, LF, Oncho, SCH, STH) medicines and products delivered to health facilities	6	Annually
No of disease specific PC-NTD (Trachoma, Taeniasis, LF, Oncho, SCH, STH) drugs integrated of into the national system	6	2023 – 2024
Rabies PEP vaccines and Antivenom available, appropriately stored, and timely accessed in all health facilities (clinics etc).	2	Annually
Immunoglobulin bank established in Namibia	1	2023 - 2024
No of regional antivenom banks established	14	2023 - 2024
Pillar 2. Intensify cross-cutting approaches		
Strategic Priority 1: Strengthen identified platforms with similar deliv	very strategies and inter	rventions
(MDAs, skin NTDs, Morbidity management, SBCC, WASH etc) for in	· · ·	
No of platforms identified and mapped with similar delivery strategies and interventions (MDAs, skin NTDs, Morbidity management, SBCC, WASH etc) for integrated approaches across NTDs	15	2023 – 2024
No of sectoral advocacy and sensitization meetings conducted at national and regional levels on NTDs	8	Annually
Budgetary provision made for NTD related activities in the sectoral budgets and plans of relevant implementation stakeholders (MAWLR, METF, MURD, MoEAC, MICT)	5, one per ministry	Annually
No of support activities for improvement in animals' husbandry through farmer information days, farmers training and community awareness for one health diseases conducted	12	Annually
Slaughtering slabs and meat inspections established within municipal area	35, one per district	2023 – 2024
No of support activities in collaboration with Ministry of Agriculture and land reform for dog vaccination campaigns	5	Annually
No of support activities for mass deworming of livestock pigs, cattle dogs (echinococcosis, rabies, taeniasis)	5	Annually
No of advocacy meetings held for provision of and access to improved/safe water supply in all NTD endemic areas.	12	Annually
No of support activities for construction of and improved access to sanitation facilities as well as safe management of fecal waste in all NTD-endemic areas especially in Kavango West, Ohangwena, Zambezi and Omusati regions	12	Annually
No of WASH programme activities supported on in NTD-endemic areas	175 (5 per district)	Annually
No of NTDs patients counselled and supported psychosocial support including referral when necessary.	500	Annually
No of technical working groups' meetings conducted in relevant sectors (WASH, One Health, School Health, etc)	Four per sector	Annually
Integrated vector management promoted especially environmental management especially with the Malaria Programme	350, 10 per district per year	Annually
		1

		1
No of districts supported and provided with disability and morbidity management for including provision of support services and devices, e.g. walking devices and prosthetics through inter-sectoral approaches	35	Annually
No of self-management of disability and self-care trainings conducted through inter-sectoral mechanisms	700, 20 per district	Annually
Guidelines for one health strategy for NTDs developed	1	2023
Relevant NTDs integrated into one health platform	1	2023
Number of NTD support groups established	10	Annually
Strategic Priority 2: Mainstream delivery platforms within the national	health system	
NTDs Master Plan presented to the Ministerial Management Committee for buy-in and inclusion in the resource mobilization policy	1	2023
No of NTD annual plans developed and integrated into MoHSS annual plan and budgets	1	Annually
NTD integrated as an agenda item in the annual cross border meetings	3	Annually
NTD activities supported for integration into regional annual plans and budgets	14	Annually
Strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety across NTD planning, implementation of the strategic Priority 3: Integrate safety 3	nentation, and monitoring	<del>,</del>
No of support activities for improved funding for pharmacovigilance	5	Annually
No of support activities to support Namibia Medicines Regulatory Authority in the areas of registration and Pharmacovigilance for both human and animal health medicines	2	Annually
No of health care professionals orientated on pharmacovigilance for NTD medicines	200	Annually
No of Adverse Event reports collected following drug administration including MDA	35 (one report per district)	Annually
Proportion of follow-up on those AEFI to determine the risk-benefit profile of medicine.	100%	Annually
Proportion of follow-up findings on those AEFI communicated to the national Therapeutic Information Pharmacovigilance Center (TIPC)	100%	Annually
No of pharmacovigilance data quality improvement activities supported at district, regional and national level	pharmacovigilance data quality improvement activities 4	
Pillar 3. Operating Models and culture to facilitate country owned	rship	
Strategic Priority 1: Promote and strengthen country ownership and I		izational
structures at national and local government with dedicated funding		
No of NTD TWG conducted with inclusion of other relevant stakeholders	4	Annually
NTD Steering Committee established	1	2023
	4, (for TWG) and two	Annually
No of quarterly and bi-annual meetings of TWG and Steering Committee conducted respectively	(for SC)	

No of NTDs focal persons appointed at regional/ district levels	49 (one per region	2023		
	and one per district			
Budget line and allocate fundings created for NTDs in the MoHSS annual plan and budget	1	2023		
No of NTD annual plans produced/printed and disseminated to all relevant stakeholders	1	Annually		
No of regions supported to develop annual NTD annual plans	14	Annually		
No of annual planning and review meetings conducted at national and regional levels	15 (one at national and 14 at the regions)			
No of national and regional NTD ambassadors appointed	15, one at national 2023 – 20 and 14 at the regions			
No of advocacy visits to all Town councils and relevant organizations/ Ministries to enact by-laws in local authorities to enforce meat inspections and vaccination of dogs and cats conducted	70, two visits per district	2023 – 2024		
No of activities to commemorate global NTD Day and incorporate NTD commemoration day into annual stakeholders (ministerial) calendars	5	Annually		
Coordination mechanism established on One Health approach for all NTDs	50, one at National, 14 at regions and 35 at the districts	2023 – 2024		
No of donors and partners mobilized and engaged to funding for NTDs activities	14, at least one per region	Annually		
Strategic Priority 2: Empower local government and authorities in so		crisis		
communication, behavioural change and building local support for N SBC framework and plan developed for NTDs including risk and		2023 – 2024		
crisis communication				
No of existing IEC materials on NTDs reviewed	30	2023, 2026		
IEC materials developed and produced including translation in major local languages (print, electronic and social media) for NTDs	28, two per NTD	Annually		
No of national ToTs trained on social mobilization, risk and crisis communication for NTDs	40, three per ministry	Annually		
No of sub-national trainings conducted on social mobilization, risk and crisis communication for NTDs	35 one per district	Annually		
Pillar 4. Strengthen Resource Mobilization, Coordination and Co NTDs	ommunication for the el	imination of		
Strategic Priority 1: Promote community involvement and ownership available resources	of the program for optima	al use of		
No of platforms mapped to promote community involvement and	70, two per district	Annually		
ownership at various levels				
	1	2023 – 2024		
ownership at various levels Framework developed a for community involvement and ownership	1 105, three per district	2023 – 2024 Annually		

No of advocacy and sensitization visits conducted to traditional rulers' meetings at regional levels	28, two per region	Annually			
Strategic Priority 2: Promote improved communication and awareness at the community level for a successful elimination of the endemic NTDs.					
KAP (Knowledge, Attitude and Practice) study of community awareness on NTDs conducted	3, baseline, midline and endline	2023, 2025, 2027			
No of existing platforms mapped to promote awareness of NTDs at the community level	140, 4 per region	2023 – 2024			
No of advocacy and sensitization visits conducted to key religious associations, professional bodies, school health program authorities, Farmers Associations	42, 3 per region	Annually			
into No of existing channels where relevant NTD messages are incorporated for improved community engagement and sensitization (Religious leaders, Teachers and PTAs, CHWs, schools and farmers information day)	50	Annually			
No of FGDs conducted	70, two per district	Annually			
No of town hall meetings conducted on NTDs	350, 10 per district	Annually			
No of Inter-personal communication (IPC) and women group sessions held on NTDs conducted	350, 10 per district	Annually			
No of awareness campaigns conducted through print and electronic media including use of social media conducted	350, 10 per district	Annually			
No of awareness campaigns conducted using traditional channels e.g. dance/theatre groups, town announcers, etc conducted	350, 10 per district	Annually			

# **PART 4** Budgeting for Impact: Estimates and Justifications

A budget is a plan for future activities and is a key management tool. It is essential that the national NTD programme draws up a simple yet comprehensive budgetary plan in line with the NTD master plan. This has been done using TIPAC. The budget of the master plan is:

- Comprehensive as it covers all critical activities without being too detailed;
- Concise in tune with the strategic nature of this document;
- Cost-effective ensuring that the costs reflected will lead to the attainment of the objectives in the plan;
- Accurate and persuasive in the expectation that all stakeholders will buy into it.

The tables below provide the summary of the budget for the five years.

### Table 20a Budgeting Activities (Five Years) – NAD

Pillar	Strategic Priorities	Cost
Pillar 1: Accelerating programmatic action	<b>Strategic Priority 1</b> : Initiate and scale up integrated preventive chemotherapy (STH, SCH, TRA, LF, Taeniasis, Yaws) to achieve 100% geographic coverage and treatment access to case management NTDs	297,920,848
	<b>Strategic Priority 2</b> : Prioritize and strengthen monitoring and evaluation to track progress and decision making towards the NTD Master Plan 2027 targets	17,264,000
	<b>Strategic Priority 3</b> : Ensure timely, safe, and effective supply chain management of quality-assured NTD Medicines and other products up to the last mile	65,728,000
Pillar 2: Intensify cross-cutting approaches	<b>Strategic Priority 1</b> : Strengthen identified platforms with similar delivery strategies and interventions (MDAs, skin NTDs, Morbidity management, SBCC, WASH etc) for integrated approaches across NTDs	99,037,900
	Strategic Priority 2: Mainstream delivery platforms within the national health system	6,100,000
	<b>Strategic Priority 3:</b> Integrate safety across NTD planning, implementation, and monitoring	9,294,800
Pillar 3: Operating Models and culture to facilitate country	<b>Strategic Priority 1</b> : Promote and strengthen country ownership and leadership through organizational structures at national and local government with dedicated funding	28,940,000
ownership	<b>Strategic Priority 2</b> : Empower local government and authorities in social mobilization, risk and crisis communication, behavioural change and building local support for NTD interventions	11,850,000
Pillar 4: Strengthen Resource Mobilization,	<b>Strategic Priority 1</b> : Promote community involvement and ownership of the program for optimal use of available resources	18,150,000
Coordination and Communication for the elimination of NTDs	<b>Strategic Priority 2</b> : Promote improved communication and awareness at the community level for a successful elimination of the endemic NTDs.	31,650,000
Total budget		585,935,548

# Table 20b Budgeting Activities (by Strategic Pillar by Year) – NAD

Strategic Pillar	2023	2024	2025	2026	2027	Total	% of Total
Pillar 1	90,756,950	75,204,098	85,465,600	64,825,600	64,660,600	380,912,848	65
Pillar 2	22,886,540	22,886,540	22,886,540	22,886,540	22,886,540	114,432,700	20
Pillar 3	8,158,000	8,158,000	8,158,000	8,158,000	8,158,000	40,790,000	7
Pillar 4	12,380,000	8,230,000	9,730,000	9,730,000	9,730,000	49,800,000	8
Grand Total	134,181,490	114,478,638	126,240,140	105,600,140	105,435,140	585,935,548	100
% of Total by Year	23	20	22	18	18	100	

# Annexes

- Steps in designing/reviewing a national NTD Master Plan
- Proposed road map targets, milestones and indicators
- Mainstreaming NTDs into national health systems
- Coordination with health ministries and other ministries and authorities
- Organisational chart of the MoH and the NTD National Programme
- Safety
- Supporting data-informed decision making
- Demographic and health indicators, Namibia
- National population data, schools, and health facilities at district level
- Budget summary
- Budget Details

#### Annex 1: Steps in designing/reviewing a national NTD Master Plan



I. Prepare andorganize

Review the current NTD plans and status of disease programmes

Understand national health priorities, e.g. NTD burden, progress towards current goals and potential future gaps

Map relevant stakeholders (within and beyond health) and existing initiatives related to NTDs

Set up or use an existing task force to coordinate NTD strategic planning, including e.g. representatives from local levels and other sectors



## II. Draft targets and strategies

Review SDGs and the global 2030 road map as a basis for setting targets for each relevant disease as well as cross-cutting targets, in the context of existing goals and timelines

Develop draft strategies that account for necessary action to achieve targets, noting gaps, barriers and prioritized actions. May include components such as an investment case and collaboration model, and monitoring and evaluation framework.

Ensure strategies are aligned with broader national health strategies



## III. Consult and enlist partners

Convene or integrate stakeholders into a committee for all NTDs and include representatives from relevant sectors (e.g. WASH) to review current and proposed strategies

Initiatebroader consultations with local, regional and global stakeholders, including e.g.

WHO, individuals and communities affected by NTDs

Use a map of stakeholders and feedback to identify their roles and resources



### IV. Refine plans and actions needed

Refine country NTD plans from feedback from partners

Define the required domestic and external resources and activities, and highlight gaps or barriers; initiate action to close gaps

Integrate into national health strategies, and secure the necessary political commitment to implement NTD plans

Align governance, collaboration and programme structures to ensure attainment of goals

Initiate continuous learning and adapt the strategy

### Annex 2: Proposed road map targets, milestones and indicators

### Table. Proposed road map targets, milestones and indicators<sup>1</sup>

#### **Overarching global targets**

Indicator	2030
Percentage reduction in people requiring interventions against neglected tropical diseases	90%
Number of countries having eliminated at least one neglected tropical disease	100
Number of neglected tropical diseases eradicated	2
Percentage reduction in disability-adjusted life years related to neglected tropical diseases	75%

#### Cross-cutting targets

Indicator		2030
INTEGRATED APPROACHES	Integrated treatment coverage index for preventive chemotherapy	75%
	Number of countries that adopt and implement integrated skin neglected tropical disease strategies	40%
	Percentage reduction in number of deaths from vector-borne neglected tropical diseases (relative to 2016) – to achieve WHO's global vector control response goal	75%
MULTISECTORAL COORDINATION	Access to at least basic water supply, sanitation and hygiene in areas endemic for neglected tropical diseases – to achieve targets 6.1 and 6.2 of Sustainable Development Goal 6	100%
	Share of the population at risk protected against catastrophic out-of-pocket health expenditure due to neglected tropical diseases – to achieve target 3.8 of Sustainable Development Goal 3	90%
	Share of countries with neglected tropical diseases integrated in national health strategies/plans	90%
UNIVERSAL HEALTH COVERAGE	Share of countries including neglected tropical disease interventions in their package of essential services and budgeting for them	90%
	Share of countries with guidelines for management of neglected tropical disease-related disabilities within national health systems	90%
COUNTRY OWNERSHIP	Share of countries reporting on all relevant endemic neglected tropical diseases	90%
	Share of countries collecting and reporting data on neglected tropical diseases disaggregated by gender	90%

#### Impact of integrated approaches on disease-specific targets

Disease	Indicator	2020	2023	2025	2030
TARGETED FOR ERA	ADICATION				
Dracunculiasis	Number of countries certified free of transmission	<b>187</b> (96%)	<b>189</b> (97%)	<b>191</b> (98%)	<b>194</b> (100%)
Yaws	Number of countries certified free of transmission	<b>1</b> (1%)	97 (50%)	<b>136</b> (70%)	<b>194</b> (100%)
TARGETED FOR ELI	MINATION (INTERRUPTION OF TRANSMISSION)				
Human African trypanosomiasis (gambiense)	Number of countries verified for interruption of transmission	0	0	5 (21%)	15 (62%)
Leprosy	Number of countries with zero new autochthonous leprosy cases	<b>50</b> (26%)	75 (39%)	<b>95</b> (49%)	120 (62%)
Onchocerciasis	Number of countries verified for interruption of transmission	4 (12%)	5 (13%)	8 (21%)	<b>12</b> (31%)
TARGETED FOR ELI	MINATION AS A PUBLIC HEALTH PROBLEM				
Chagas disease	Number of countries achieving interruption of transmission through the four transmission routes (vectoral, transfusion, transplantation and congenital), with 75% antiparasitic treatment coverage of the target population	0	4 (10%)	10 (24%)	15 (37%)
Human African trypanosomiasis (rhodesiense)	Number of countries validated for elimination as a public health problem (defined as <1 case/10 000 people/year, in each health district of the country averaged over the previous five-year period)	0	<b>2</b> (15%)	4 (31%)	8 (61%)
Leishmaniasis (visceral)	Number of countries validated for elimination as a public health problem (defined as <1% case fatality rate due to primary visceral leishmaniasis)	0	<b>32</b> (43%)	<b>56</b> (75%)	<b>64</b> (85%)
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Note: In certain cases, reference to "countries" should be understood to signify countries, territories and areas.

### Table. Proposed road map targets, milestones and indicators<sup>1</sup> (cont'd)

Disease	Indicator	2020	2023	2025	2030
TARGETED FOR ELIMI	NATION AS A PUBLIC HEALTH PROBLEM				
Lymphatic filariasis	Number of countries validated for elimination as a public health problem (defined as infection sustained below transmission assessment survey thresholds for at least four years after stopping mass drug administration; availability of essential package of care in all areas of known patients)	<b>19</b> (26%)	<b>23</b> (32%)	<b>34</b> (47%)	<b>58</b> (81%)
Rabies	Number of countries having achieved zero human deaths from rabies	80 (47%)	<b>89</b> (53%)	<b>113</b> (67%)	155 (92%)
Schistosomiasis	Number of countries validated for elimination as a public health problem (currently defined as <1% proportion of heavy intensity schistosomiasis infections)	<b>26</b> (33%)	<b>49</b> (63%)	<b>69</b> (88%)	<b>78</b> (100%)
Soil-transmitted helminthiases	Number of countries validated for elimination as a public health problem (defined as <2% proportion of soil-transmitted helminth infections of moderate and heavy intensity due to Ascaris lumbricoides, Trichuris trichuria, Necator americanus and Ancylostoma duodenale)	7 (7%)	<b>60</b> (60%)	<b>70</b> (70%)	<b>96</b> (96%)
Trachoma	Number of countries validated for elimination as a public health problem (defined as (i) a prevalence of trachomatous trichiasis "unknown to the health system" of <0.2% in ≥15-year-olds in each formerly endemic district; (ii) a prevalence of trachomatous inflammation—follicular in children aged 1–9 years of <5% in each formerly endemic district; and (iii) written evidence that the health system is able to identify and manage incident cases of trachomatous trichiasis, using defined strategies, with evidence of appropriate financial resources to implement those strategies)	9 (14%)	28 (44%)	<b>43</b> (68%)	<b>64</b> (100%)
TARGETED FOR CONT	ROL				
Buruli ulcer	Proportion of cases in category III (late stage) at diagnosis	30%	<22%	<18%	<10%
Dengue	Case fatality rate due to dengue	0.80%	0.50%	0.50%	0%
Echinococcosis	Number of countries with intensified control for cystic echinococcosis in hyperendemic areas	1	4	9	17
Foodborne trematodiases	Number of countries with intensified control in hyperendemic areas	N/A	<b>3</b> (3%)	6 (7%)	<b>11</b> (12%)
Leishmaniasis (cutaneous)	Number of countries in which: 85% of all cases are detected and reported and 95% of reported cases are treated	N/A	<b>44</b> (51%)	<b>66</b> (76%)	<b>87</b> (100%)
Mycetoma, chromo- blastomycosis and other deep mycoses	Number of countries in which mycetoma, chromoblastomycosis, sporotrichosis and/or paracoccidioidomycosis are included in national control programmes and surveillance systems	1	4	8	15
Scabies and other ectoparasitoses	Number of countries having incorporated scabies management in the universal health coverage package of care	0	<b>25</b> (13%)	<b>50</b> (26%)	<b>194</b> (100%)
Snakebite envenoming	Number of countries with incidence of snakebite achieving reduction of mortality by $50\%$	N/A	<b>39</b> (30%)	<b>61</b> (46%)	<b>132</b> (100%)
Taeniasis/cysticercosis	Number of countries with intensified control in hyperendemic areas	<b>2</b> (3%)	4 (6%)	9 (14%)	<b>17</b> (27%)
Note: In certain cases, re	ference to "countries" should be understood to signify countries, territo	ries and are	as.		

Annex 3: Mainstreaming NTDs into national health systems Countries may require disease-specific technical expertise to translate and prioritize actions according to the local context.

Activities relevant to patient

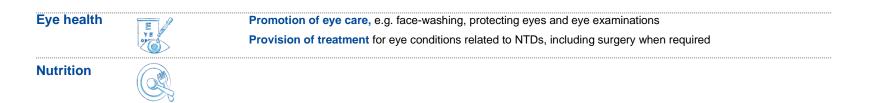
Prevention	Case Finding and Diagnosis	Treatment	Care and rehabilitation				
Prevention		, 					
Prevention chemotherapy	Active case-finding Preventive chemotherapy		Support networks				
Targeted prevention			Self-care				
Vector control	Safety						
One Health		Counselling and					
           	<ul> <li>Point-of-contact diagno</li> </ul>	psychological support					
Health care worker training and supportive supervision							
	Screening and treatment of skin NTDs						
	Rapid response system:	5	Physical therapy				
		Wound care					
		Anthelminthic treatment	Provision of assistive devices				
	Laboratory diagnosis Ir	dividual/intensified case/m	orbidity management				
		Management of complica	tions and surgery				
	Prevention chemotherapy Targeted prevention Vector control One Health	Prevention chemotherapy       Active case-finding         Targeted prevention       Targeted prevention         Vector control       Safety         One Health       Point-of-contact diagno         Health care worker training and supportive super       Screening and treatmer         Rapid response systems       Rapid response systems	Prevention chemotherapy       Active case-finding       Preventive chemotherapy         Targeted prevention       Safety         Vector control       Safety         One Health       Point-of-contact diagnosis         Health care worker training and supportive supervision         Screening and treatment of skin NTDs         Rapid response systems         Wound care         Anthelminthic				

#### Annex 4: Coordination with health ministries and other ministries and authorities

Hoalth	minictry
пеанн	ministry

Activities of health ministry departments that are relevant for NTDs

Global vector	Use of repellents and traps, e.g. insecticide-treated bed nets, screens, insecticides or molluscicides, fogging					
control	Environmental management to minimize mosquito habitats, including:					
response (may be under the ministry of	<ul> <li>Housing improvements (in collaboration with ministry of infrastructure), e.g. plans to build vector-free housing,includingsafestorageofwater,sanitation,windowscreens,andensuringairflowtopreventvector entry and to help to keep housescool</li> </ul>					
some countries)	- Container management, e.g. covering, emptying, cleaning and disposing of containers (e.g. oldtyres)					
	<ul> <li>Draining or treating stagnant water (in collaboration with ministry of water and WASH)</li> <li>Behavioural change, e.g. wearing long clothing</li> </ul>					
	Use of other innovative approaches, e.g. release of modified, transgenic or sterile vectors, spatial repellents to stop vector entry into households					
Wental health 🚳	Psychological support and counselling services for NTD patients					
	Routine assessment of mental health for patients with specific NTDs, particularly those with chronic conditions					
Disability and nclusion	Treatment of disability and morbidity management, e.g. physical therapy Provision of support services and devices, e.g. walking devices and prosthetics Training for self-management of disability and self-care					
Nomen's and child health	Awareness-building about diseases for which women and children are disproportionately at risk or for which there are particular manifestations in women (e.g. female genital schistosomiasis)					
	Use of pre- and post-natal contacts, e.g. in maternal health clinics, to deliver interventions, e.g. deworming tablets, and supplements (e.g. iron) for pregnant women and children to prevent anaemia					
Pharmaco	Official regulatory authority for drug safety and adverse event reporting.					
vigilance	Expertise in adverse drug reactions, their investigation, and management					
	Expertise in communicating information on risk and in mitigating misinformation about adverse events					



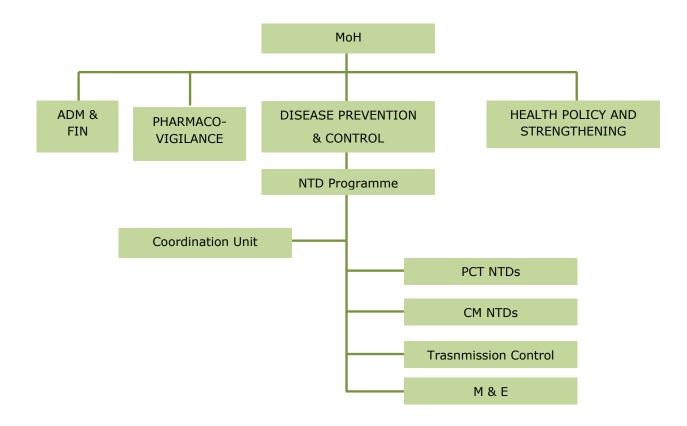
Access to better nutrition to strengthen immune systems and reduce susceptibility to infection, e.g. for visceral leishmaniasis for which malnutrition is a risk factor Provision of food and supplements (e.g. iron and vitamin A) to combat common side-effects of NTDs, such as anaemia and nutritional impairment



**Immunization programmes:** joint delivery of preventive chemotherapy to pre-school-age children **Tuberculosis:** joint detection of paragonimiasis (foodborne trematodiases), leprosy and other mycobacterial diseases, e.g. Buruli ulcer

Malaria: joint diagnosis with human African trypanosomiasis, vector control against *Anopheles* mosquitoes HIV/AIDS: education about risks, e.g. of coinfection with certain NTD





#### Annex 6: Safety

Safety is critical for the success of programmes to control and eliminate neglected tropical diseases (NTDs). Attention to safety is also required to fulfil the core ethical obligation of public health programmes to 'do no harm' while delivering health benefits. Safety should be embedded in, and permeate, all aspects of NTD programmes, including training; supervision; drug supply and management; preventive chemotherapy; communication with communities; programme monitoring; and prompt SAE investigation and reporting.

Safety has long been a consideration for NTD programmes. For example, drugs that are donated for preventive chemotherapy are manufactured according to the highest standards of safety and quality. However, maintaining safety requires ongoing vigilance, particularly in administering preventive chemotherapy, which now reaches more than 1 billion persons each year. For example, deaths continue to be reported among children who choke on tablets during preventive chemotherapy.

Safety is not automatic. It must be considered, planned for, and integrated across all components of NTD programmes. Few NTD Master Plans currently include safety-related objectives or targets. As a result, safety has not received the attention it deserves. NTD programmes are not alone in this regard; in response to the growing problem of 'medical error,' WHO recently launched a world patient safety initiative to improve safety in all medical and public health settings (WHA72.6). Including safety as an integral part of NTD Master Plans can ensure that safety receives adequate attention in NTD programming. This annex provides guidance to NTD programme managers in addressing safety as they draft and implement national NTD Master Plans.

#### Organizational and systems preparedness

The WHO NTD Road Map, 2021-2030 addresses safety primarily in the context of safe drug management and response to adverse reactions. For example, Figure 6 in the NTD Road Map refers to "safe administration of treatment and diligent monitoring and response to adverse events" as a key dimension for assessing programme actions.

Safe drug administration and competent responses to adverse events require advance planning as well as organizational preparedness, both within and beyond the ministry of health. National pharmacovigilance centres represent a key, but often overlooked resource for NTD Programmes in planning for, and responding to, drug-related adverse events. Pharmacovigilance centres have regulatory authority and responsibility for investigating and reporting adverse events, and they can provide essential resources and expertise to NTD programmes when serious adverse events (SAEs) occur. Collaboration with national pharmacovigilance centres should be highlighted in NTD Master Plans. Relevant sections of the Master Plan Guidelines for such collaboration include: section 1.2.2 (health systems analysis); table 2 (health system building blocks); section 1.4.2 (performance of closely-related programmes); and Figure 9 (cross-cutting approaches to tackle NTDs). Pharmacovigilance agency representatives should be included in NTD Technical Advisory Group (Figure 11).

A second high-priority area for preparedness is communications. Concern about adverse events is one of the main reasons for refusal to participate in preventive chemotherapy. When adverse events – or even rumours of them – occur, clear, effective communication is essential. Increasingly, this involves social media. NTD Master Plans should specify the development and periodic review of a strategic communications plan, which addresses key safety messages during community mobilization; identifies spokespersons who can be trained and 'on ready' during mass drug administration; and coordinated responses to adverse events and other situations that cause community panic or threaten the program.

Relevant sections of the Master Plan Guidelines include Table 14 (with the addition of risk and crisis communication) and Pillar 3 (country ownership).

#### Safe drug management and storage

Many NTD Master Plans address the need for safe management, storage, and shipment of NTD drugs, as does the 2021-2030 NTD road map. It is important that NTD Master Plans continue to highlight these factors. As preventive chemotherapy becomes increasingly integrated and drugs are co-administered, safe drug management is essential for preventing mix-ups and improper dosing.

#### Safety training and safe drug administration

Safe drug administration depends on the quality of the interaction between the CDD and persons participating in preventive chemotherapy. CDDs should understand that safety is as important as high drug coverage, and should be trained and skilled in ensuring correct dosing and preventing choking (such as insisting on observed treatment, crushing deworming tablets, and not forcing young children to take medicine against their will). CDDs should adhere to exclusion criteria (e.g., first trimester of pregnancy) and should know how to respond to choking events (e.g., Heimlich manoeuvre). Mass drug administration for onchocerciasis in areas endemic for loiasis presents additional challenges to prevent neurologic SAEs, and should be addressed in NTD Master Plans.

#### Managing adverse events

Inadequate or poorly-executed responses to SAEs pose a threat to NTD programmes. NTD Master Plans should include objectives and activities specifically directed at recognition, response, investigation, reporting – and ultimately, prevention – of SAEs. They can include process objectives for preparedness and response to adverse events, as well as targets for collaboration with national pharmacovigilance agencies, strategic communications planning, and stakeholder awareness of procedures for responding to SAEs. Zero choking deaths would be an example an outcome target.

#### Integrating safety into NTD Master Plans

There are many opportunities for integrating safety into NTD Master Plans, which is facilitated by the systematic approach recommended in this document for developing NTD Master Plans. A first step may be to include safety – 'do no harm' – as a guiding principle in Table 13.

In Part I of the document, NTD Situation Analysis, the SWOT analysis (section 1.5) should consider SAEs and other safety issues as potential threats to be addressed, and the health systems analysis (section 1.2.2) should include pharmacovigilance agencies.

In Part II, Strategic Agenda, safety may be considered as a programme goal, and specific targets established (such as no choking deaths). Two strategic pillars (section 2.4) are particularly relevant for safety: cross-cutting approaches and country ownership. Safety is an issue that cuts across all aspects of NTD programmes, and all diseases. GPW13 highlights "safe, effective, and affordable essential medicines and their correct administration and use" in UHC. In addition, systems for identifying, responding to, reporting, and preventing SAEs and promoting drug safety are essential for country ownership of NTD programmes. Safety strategies and targets are also appropriate for specific diseases, e.g., for onchocerciasis control in areas endemic for loiasis (Table 11).

In Part III, Implementing the Strategy, pharmacovigilance centres should be included in plans for coordination (Figure 11). Safety can feature prominently in Section 3.3, on assumptions, risks (e.g., choking; addressing rumours), and mitigation; and in Section 3.4, on performance accountability. Specific process and outcome indicators should be developed that address the safety issues of highest priority to national programmes.

#### Conclusion

Addressing safety in NTD Master Plans will have far-reaching consequences for improving programme quality. Additional details on NTD programme safety can be found in the WHO document, *Safety in Administering Medicines for Neglected Tropical Diseases,* which outlines approaches to establishing and nurturing collaboration with pharmacovigilance agencies, developing preparedness and excellence in communications, and creating systems to detect, respond to, and prevent SAEs.

#### Annex 7 Supporting data-informed decision making

Good data are essential to track progress towards the milestones and goals set by the new WHO NTD Roadmap. Quality, accessible, timely, reliable disaggregated data are needed at every NTD programme stage and are key for responsive and efficient decision-making. They support planning and management of key activities and underpin progress monitoring for strategic priorities identified in Country NTD Master Plans. Developing a culture of data-driven programming also ensures strengthened accountability, boosting confidence and programme support. To assist countries with collecting and using data, ESPEN have developed two PC-NTD data platforms: ESPEN Survey Services and the ESPEN Portal.

**ESPEN Survey Services facilitates the collection of standardised disease-specific epidemiological data, improving data quality and timeliness.** This is built around the ESPEN Collect mobile application platform to collect, store and visualise real-time data. ESPEN Collect currently supports disease-specific surveys that collect data to populate the Joint Application Package, as well as PC coverage surveys.

**ESPEN Portal** (<u>https://espen.afro.who.int</u>) **supports Member States in using PC-NTD for action by providing easy access to quality data products and tools.** Many NTD programmes face multiple challenges around data access and use, including fragmented data management systems and limited capacity to bring together and analyse data. Through the ESPEN data portal, health officials and their partners can access disaggregated, longitudinal disease-specific and integrated datasets and maps, together with action-oriented analytics and tools – all developed from data provided by health ministries to ESPEN through WHO reporting processes.

This annex highlights some of the available ESPEN data resources of most relevance for NTD programme review and policy development, and suggests how these might support compilation of strategic, evidence based NTD Master Plans, in line with the WHO 2030 Roadmap.

#### **★** AVAILABLE THROUGH YOUR ESPEN PORTAL <u>COUNTRY PAGE</u>:

(i) PC-NTD Progress Dashboards and comprehensive data repository: The ESPEN data team have compiled epidemiological and programmatic data submitted by health ministries through the Joint Application Package into a master database, linking IUs through time and across diseases. You can think of this as an alternative national NTD database, describing past and on-going programme activities. These data have been used to generate County Progress Dashboards for each disease, summarising progress along the elimination framework. Also available are IU-level maps and datasets showing prevalence data (from both baseline mapping and impact assessments, at IU and site level); current endemicity and co-endemicity status; PC coverage by year; and cumulative number of PC rounds.

→These are all vital resources for firstly completing Sections 1.3 Gap Analysis and 1.4 Programme Context Analysis of the Master Plan document, and secondly informing the identification and development of Strategic Priorities (Section 2). They also provide the contemporary baseline and gap information required to set relevant targets in the Performance and Accountability Framework (Section 3.4).

(ii) Integrated WaSH data resource: Water, sanitation and hygiene (WaSH) are critical in the prevention and care of NTDs. Through your Country page, you can access information and interactive maps on access to water and sanitation at IU-level, highlighting areas of opportunity for coordination between WaSH and NTD activities at local levels to maximise the effectiveness of NTD programmes. This is useful for better describing programme context within the Master Plan.

(iii) Forecasting dashboards: By combining information on programme context and current progress within a framework outlining required activities by programme stage, ESPEN have developed forecasts that project the expected trajectory of PC and impact assessment activities for each implementation unit through to 2030. Projections can be downloaded as a simple workbook or visualised through the ESPEN Portal country pages.

→This key strategic tool provides valuable support for programmes to set realistic year targets for diseasespecific milestones (Section 2.2.2) and identifying appropriate timeframes for conducting each key activity within the strategic priorities (Section 3.1). This resource also supports the development of a realistic multiyear programme budget, by clearly outlining expected activities by year (Part 4).

#### ★ OTHER ESPEN RESOURCES:

(iv) ESPEN Survey Services: After programmes have used the information available from the forecasting dashboards to map out when disease specific impact assessments might be expected and where, ESPEN Survey Services can support the collection of high-quality epidemiological data. As well as assessing performance, these data can be used to adjust expectations on timeframes and indicate areas requiring investigation or increased investment.

(v) Aligned data tools: using modelling to support responsive implementation: The ESPEN forecasting tool provides a projection based on programmes where implementation has gone as planned, and prevalence followed the expected trajectory. NTD programs can however be affected by many factors that impact the likely success. Working with the NTD Modelling Consortium, ESPEN have made available computer models tailored to each country (and to each implementation unit) that can (i) support programmes in identifying in advance areas that may require intensified interventions, and (ii) investigate potential explanations for observed poor performance. These can be used to tailor intervention strategies to target potential problem areas more effectively and refine targets to account for these challenges.

Here were present a few case studies describing how this modelling tool may be used to inform action.

1. In a given setting, baseline prevalence surveys for SCH suggested very high prevalence in schoolaged children for several IUs. For these IUs, will annual treatment of school-age children be enough to achieve elimination as a public health problem within 5-6 years?

For each IU, the modelling tool considers local transmission dynamics (informed by available baseline data) to project the likely impact of control activities. The better the baseline prevalence data, the more confidence we can be in these projections. Users can use the tool to study whether they might be expected to reach programme goals given standard interventions and can explore the effect of increasing the number of PC rounds per year or expanding to include other age groups. The results may suggest that in this setting, programme goals are very unlikely to be achieved in the stated timeframe unless treatment is expanded to adults.

2. As a result of COVID-19, a round of trachoma PC was missed in all endemic IUs across the country. What effect might this have had on the programme, and is that effect likely to have been the same everywhere?

Occasionally missed rounds occur for diverse reasons. As the tool considers both the local transmission dynamics and history of control for each IU, it can provide an estimate of current endemicity. Users can use the tool to compare the expected IU prevalence with and without this missed round of PC (to assess the likely impact) and then explore potential mitigation strategies - such as adding an extra round next year or increasing programme coverage. For diseases like trachoma, STH and schistosomiasis the impact of a missed round may have a longer-term impact due to fast re-infection rates. This is particularly true in areas with high prevalence.

3. An IU has failed a pre-TAS survey, despite reporting 5 years of treatment at >90% population coverage. Why might this have happened?

Robust treatment coverage surveys can provide a useful indication of whether reported treatment rates are too high. In the absence of such data however, the modelling tool can be used to explore potential explanations by comparing the modelled prevalence trajectory with that seen from the pre-TAS survey data. For example, could differing patterns of treatment among different population groups have played a role?

By comparing various treatment scenarios (for example, consistent low coverage in a large proportion of the population, such as adult males) programme managers can identify if specific actions may be required. These might include a concerted campaign to increase coverage in non-compliant groups.

### Annex 8 Demographic and health indicators, Namibia, 2016

Indicator	Proportion or number
Population	2.3 Million
Growth rate	1.9
Sex Ratio: Male per 100 female	95
Age distribution	
Population under 5 years %	14
School-age children (5 – 14 years)	23
Population < 15 years 59%	57
60+ years %	6
Life expectancy	
Male	61.8 years
Female	67.7 years
Average life expectancy	64.9 years
Death Completeness Rate	76%
Housing conditions Households with, %	
Average household size	3.9
Safe water	94
No toilet facility	46
Electricity for lighting	45
Wood/charcoal for cooking	50

### Annex 9 National population data, schools, and health facilities at district level

Region	Health District	Number IUs	No. of villages or communities*	Total population	Under- 5 (Pre- school)	5–14 years (School age)	No. primary schools	No. of p facilitie		al health	
								Referra I	Distri ct	Health Centres	Clinics
Kavango / W	Ncamagoro			43,565		13,941		0	0	2	4
Kavango / W	Nankudu			4,344		2,262		0	1	2	5
Kavango / E	Andara			31,944		15,217		0	1	0	10
Kavango / E	Nyangana			27,270		1,665		0	1	0	9
Kavango / E	Rundu			148,856		40,853		0	1	3	22
Kunene	Khorixas			19,909		3,926		0	1	0	6
Kunene	Opuwo			64,482		19,588		0	1	2	16
Kunene	Outjo			27,739		5324		0	1	1	5
Ohangwena	Eenhana			69,642		19,714		0	1	0	11
Ohangwena	Engela			170,720		42,059		0	1	1	17
Ohangwena	Okongo			30,090		8,979		0	1	0	4
Omusati	Okahao			32,122		7,734		0	1	1	9
Omusati	Oshikuku			105,067		25,491		0	1	2	17
Omusati	Outapi			79,552		18,486		0	1	2	7
Omusati	Tsandi			42,813		9,547		0	1	2	7
Oshana	Oshakati			205,336		46,485		0	1	5	12
Oshikoto	Omuthiya			63,030				0	1		
Oshikoto	Onandjokwe			112,111		42,620		0	1	3	8

Oshikoto	Tsumeb	37,019	8,393	0	1	0	5
Zambezi	Katima Mulilo	109,160	26,355	0	1	3	27
Hardap	Aranos	10,962	2,738	0	1	1	2
Erongo	Usakos	20,667	11,189	0	1	0	5
Karas	Karasburg	19,725	4,437	0	1	0	6
Karas	Keetmanshoop	47,459	8,394	0	1	2	6
Hardap	Mariental	41,871	8,463	0	1	1	7
Erongo	Omaruru	24,596	42,75	0	1	0	5
Omaheke	Gobabis	77,652	20,798	0	1	2	13
Erongo	Swakopmund	83,439	13,093	0	1	0	5
Erongo	Walvis Bay	93,678	11,703	0	1	1	5
Khomas	Windhoek	513,044	91,933	2	0	2	14
Karas	Luderitz	28,831	5,843	0	1	0	5
Hardap	Rehoboth	43,793	7,973	0	1	1	4
Otjozondjupa	Otjiwarongo	63,240	15,200	0	1	2	4
Otjozondjupa	Okahandja	40,419	9,305	0	1	0	3
Otjozondjupa	Grootfontein	42,005	8,726	0	1	2	6
Otjozondjupa	Okakarara	19,886	5,700	0	1	0	6
*Where implem	entation and administrative un	its are separate (e.g. onchocercias	is interventions), target	communities	in a dist	rict.	

### Annex 10 Summary Budget by Year and by Strategic Priority

Strategic Pillar/Strategic Priorities	2023	2024	2025	2026	2027	Total
<b>Pillar1: Strategic priority 1</b> : Initiate and scale up integrated preventive chemotherapy (STH, SCH, TRA, LF, Taeniasis, Yaws) to achieve 100% geographic coverage and treatment access to case management NTDs	76,225,350	57,064,498	55,237,000	54,697,000	54,697,000	297,920,848
<b>Pillar1: Strategic priority 2</b> : Prioritize and strengthen monitoring and evaluation to track progress and decision making towards the NTD Master Plan 2027 targets	4,622,000	8,050,000	4,319,000	219,000	54,000	17,264,000
<b>Pillar1: Strategic Priority 3</b> : Ensure timely, safe, and effective supply chain management of quality-assured NTD Medicines and other products up to the last mile	9,909,600	10,089,600	25,909,600	9,909,600	9,909,600	65,728,000
<b>Pillar2: Strategic Priority 1</b> : Strengthen identified platforms with similar delivery strategies and interventions (MDAs, skin NTDs, Morbidity management, SBCC, WASH etc) for integrated approaches across NTDs	19,807,580	19,807,580	19,807,580	19,807,580	19,807,580	99,037,900
<i>Pillar2: Strategic Priority 2</i> : Mainstream delivery platforms within the national health system	1,220,000	1,220,000	1,220,000	1,220,000	1,220,000	6,100,000
<i>Pillar2: Strategic Priority 3</i> : Integrate safety across NTD planning, implementation, and monitoring	1,858,960	1,858,960	1,858,960	1,858,960	1,858,960	9,294,800
<b>Pillar3: Strategic Priority 1</b> : Promote and strengthen country ownership and leadership through organizational structures at national and local government with dedicated funding	5,788,000	5,788,000	5,788,000	5,788,000	5,788,000	28,940,000
<b>Pillar3: Strategic Priority 2</b> : Empower local government and authorities in social mobilization, risk and crisis communication, behavioural change and building local support for NTD interventions	2,370,000	2,370,000	2,370,000	2,370,000	2,370,000	11,850,000
<b>Pillar4: Strategic Priority 1</b> : Promote community involvement and ownership of the program for optimal use of available resources	3,990,000	3,540,000	3,540,000	3,540,000	3,540,000	18,150,000
<b>Pillar4: Strategic Priority 2</b> : Promote improved communication and awareness at the community level for a successful elimination of the endemic NTDs.	8,390,000	4,690,000	6,190,000	6,190,000	6,190,000	31,650,000
Grand Total	134,181,490	114,478,638	126,240,140	105,600,140	105,435,140	585,935,548

### Annex 11 Detailed Budget

Activities - Sub-activities	2023	2024	2025	2026	2027	Total
Pillar1:Strategic priority 1: Initiate and scale up integrated preventive chemotherapy (STH, SCH, TRA, LF, Taeniasis, Yaws) to achieve 100% geographic coverage and treatment access to case management NTDs	76,225,350	57,064,498	55,237,000	54,697,000	54,697,000	297,920,848
Identify PC-NTDs mapping needs	875,000					875,000
Develop/Adapt mapping protocols for PC-NTDs (Trachoma, Taeniasis, LF, Oncho)	11,954,360					11,954,360
Procure appropriate diagnostic kits and supplies	22007000	22007000	22007000	22007000	22007000	110,035,000
Build capacity for mapping of PC-NTDs	1,094,000					1,094,000
Conduct integrated mapping/stand-alone mapping for PC-NTDs	5,402,992					5,402,992
Determine endemicity status for each PC-NTD and identify areas for intervention based mapping outcomes	718998	718998				1,437,996
Develop/Adapt/Review MDA guidelines for the planned interventions	202000					202,000
Conduct training of trainers at national level for MDA	360,000					360,000
Capacity building for all Environmental health practitioners from MOHSS and MURD in NTDs		410,000				410,000
Conduct step-down training at sub-national levels		857,500				857,500
Conduct training for community-level/ school-based interventions	381000	381000				762,000
Implement integrated school-based intervention (MDR)	18240000	18240000	18240000	18240000	18240000	91,200,000
Implement integrated community-based interventions including provision of food and supplements (e.g. iron and vitamin A) to combat common side-effects of NTDs, such as anaemia and nutritional impairment	500,000	500,000	500,000	500,000	500,000	2,500,000

Conduct active case finding for CM NTDs including leprosy, rabies, snake bites, scabies, Yaws, and female genital schistosomiasis	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	15,000,000
Increase passive case identification, referral and management through training	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	15,000,000
Develop and produce guidelines for integrated skin NTD management	180,000					180,000
Review/Develop/Adapt and produce guidelines for management of other CM/ NTDs including finalization of Integrated Case Bite Management (IBCM) protocol	180,000					180,000
Review/Develop/Adapt and produce guidelines for management of other CM/ NTDs including finalization of Integrated Case Bite Management (IBCM) protocol	180,000					180,000
Train targeted HWs on integrated skin NTD management	252000	252000	252000	252000	252000	1,260,000
Capacity building of all health workers on snake bite and rabies case management	337000	337000	337000	337000	337000	1,685,000
Train all health workers and Veterinarian officials on the use of IBCM tools	337000	337000	337000	337000	337000	1,685,000
Targeted training of HWs on management of other CM NTDs	337000	337000	337000	337000	337000	1,685,000
Train regional/local snake handlers to reduce snakebite accidents	337000	337000	337000	337000	337000	1,685,000
Promote and intensify eye health focusing on promotion of eye care, e.g. face-washing, protecting eyes and eye examinations as well as provision of treatment for eye conditions related to NTDs, including surgery when required	500000	500000	500000	500000	500000	2,500,000
Integrate relevant NTDs into one health platform			180,000			180,000
Create national operational plans to deliver interventions for NTDs requiring human-animal- environment interface			180,000			180,000

Conduct joint awareness campaigns to livestock keepers on (pigs, cattle) husbandry , feacal disposal, ofal disposal echinococcosis, Taeniasis			180,000			180,000
Conduct sensitization meetings targeting women- gender equity (including FG SCH) for stigma removal and self care	500000	500000	500000	500000	500000	2,500,000
Initiate rapid response systems for rabies, SBE, onch, leish, HAT	5350000	5350000	5350000	5350000	5350000	26,750,000
Pillar1:Strategic priority 2: Prioritize and strengthen monitoring and evaluation to track progress and decision making towards the NTD Master Plan 2027 targets	4,622,000	8,050,000	4,319,000	219,000	54,000	17,264,000
Establish Monitoring and evaluation task team	128000					128,000
Develop comprehensive programme M&E framework	180000					180,000
Develop/Review M&E tools (reporting forms, registers, cards, etc)	180000					180,000
Conduct training of trainers on use of M&E tools	360000					360,000
No of step-down trainings at conducted sub-national level on use of M&E tools	2400000	2400000	2400000			7,200,000
Conduct programme performance mid-term review			340,000			340,000
Develop/Adapt protocols for disease-specific & integrated impact assessment		2520000				2,520,000
Build capacity at national level on impact assessment for targeted NTDs		240,000				240,000
Advocate for update of the existing notifiable diseases to include snakebite		448,000				448,000
Collect, collate, produce and share consolidated report to policy makers		848,000				848,000
Build local capacity for timely detection and response to outbreak prone NTDs		1360000	1360000			2,720,000
Enhance capacity of laboratories to improve optimum diagnosis of NTDs	240,000					240,000

Enhance capacity of laboratories to improve optimum diagnosis of NTDs	900,000					900,000
Develop/Adapt/Review supervisory plan and checklists	180,000					180,000
Conduct annual supervisory visit to assess the implementation of interventions including usage of guidelines at facilities	28000	28000	28000	28000	28000	140,000
Monitor WASH implementation in all NTD endemic districts	26000	26000	26000	26000	26000	130,000
Conduct operational research on NTDs			165000	165000		330,000
Improve and strengthen collaboration with Research Institutions on NTDs operational and pure research		180,000				180,000
Pillar1:Strategic Priority 3: Ensure timely, safe, and effective supply chain management of quality- assured NTD Medicines and other products up to the last mile	9,909,600	10,089,600	25,909,600	9,909,600	9,909,600	65,728,000
Determine drug needs based on mapping outcomes	19300	19300	19300	19300	19300	96,500
Set up a supply chain management system for NTD drugs/products/medicines for last mile distribution and reverse logistics	96500	96500	96500	96500	96500	482,500
Complete the Joint Request Form (JRM) and other applications for needed drugs/ products/vaccines	193000	193000	193000	193000	193000	965,000
Submit country request for the Free PC and Mass treatment drugs	19300	19300	19300	19300	19300	96,500
Submit country request for the Free CM drugs	96500	96500	96500	96500	96500	482,500
Procure and store NTD medicines and products	5375000	5375000	5375000	5375000	5375000	26,875,000
Deliver NTD medicines and products to health facilities	1,750,000	1,750,000	1,750,000	1,750,000	1,750,000	8,750,000
Advocate for integration of NTD drugs into the national system		180,000				180,000
Ensure appropriate storage, availability and timely access to Rabies PEP vaccines and Antivenoms in all health facilities (clinics etc).	360000	360000	360000	360000	360000	1,800,000

Advocate for the establishment of Immunoglobulin bank in Namibia	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	10,000,000
Support the establishment of regional antivenom banks			16,000,000			16,000,000
Pillar2:Strategic Priority 1: Strengthen identified platforms with similar delivery strategies and interventions (MDAs, skin NTDs, Morbidity management, SBCC, WASH etc) for integrated approaches across NTDs	19,807,580	19807580	19807580	19807580	19807580	99,037,900
Identify and map platforms with similar delivery strategies and interventions (MDAs, skin NTDs, Morbidity management, SBCC, WASH etc) for integrated approaches across NTDs	562500	562500				1,125,000
Conduct sectoral advocacy and sensitization meetings at national and regional levels on NTDs	1258000	1258000	1258000			3,774,000
Advocate for budgetary provision for NTD related activities in the sectoral budgets and plans of relevant implementation stakeholders (MAWLR, METF, MURD, MoEAC, MICT)	448,000					448,000
Support improvement in animals' husbandry through farmer information days, farmers training and community awareness	875000	875000	875000	875000		3,500,000
Advocate for establishment of slaughtering slabs and meat inspections within municipal area	124,000					124,000
Support vaccination of $\geq$ 70% of dog population in high- risk areas through awareness creation	700000	700000	700000	700000	700000	3,500,000
Advocate for provision of and access to improved/safe water supply in all NTD endemic areas.		1400000	1400000			2,800,000
Advocate for construction of and improved access to sanitation facilities as well as safe management of fecal waste in all NTD-endemic areas especially in Kavango West, Ohangwena, Zambezi and Omusati regions			3774000			3,774,000
Support WASH programme activities in NTD-endemic areas	1575000	1575000	1575000	1575000	1575000	7,875,000

Advocate for counselling and support to NTDs patients requiring psychosocial support including referral when necessary.	450,000	450,000	450,000	450,000	450,000	2,250,000
Participate in technical working groups' meetings in relevant sectors (WASH, One Health, School Health, etc)	140,000	140,000	140,000	140,000	140,000	700,000
Promote integrated vector management especially environmental management especially with the Malaria Programme	3200000	3200000	3200000	3200000	3200000	16,000,000
Support and provide for disability and morbidity management including provision of support services and devices, e.g. walking devices and prosthetics through inter-sectoral approaches	3500000	3500000	3500000	3500000	3500000	17,500,000
Training for self-management of disability and self-care through inter-sectoral mechanisms	3500000	3500000	3500000	3500000	3500000	17,500,000
No of support vaccinations for pigs (cysticercoids) >80% pig population in high risk areas and awareness to farmers in collaboration with Ministry of Agriculture	350000	350000	350000	350000	350000	1,750,000
Angola and other countries interventional partnerships and coordination LF, Taeniasis and other shared diseases	200000	200000	200000	200000	200000	1,000,000
Cases referred for counselling for mental health	500000	500000	500000	500000	500000	2,500,000
Develop support network with communities for sensitization on antistigmatization and community support	525000	525000	525000	525000	525000	2,625,000
Advocacy meetings with (MOHSS)/stakeholders on provision of support services, physiotherapy, assistance devices	100080	100080	100080	100080	100080	500,400
Trainings of lab technicials on diagnosis and treatment of patients oncho, SCH/STH, LF, Taeniasis/cysticercosis, echinococcosis, Food born trematodes, scabies at district level	360000	360000	360000	360000	360000	1,800,000
Trainings of health care workers in CM-NTD surgery (LF, leprosy, buruli ulcer, cysticercosis, echinococcosis,	720000	720000	720000	720000	720000	3,600,000

food borne trematodes, Snake bite envenoming, mycetoma						
Support activities for dog vaccination campaigns	720000	720000	720000	720000	720000	3,600,000
Pillar2:Strategic Priority 2: Mainstream delivery platforms within the national health system	1220000	1220000	1220000	1220000	1220000	6,100,000
Develop NTD annual plans and integrate them into MoHSS annual plan and budgets	520000	520000	520000	520000	520000	2,600,000
Support integration of NTD activities into regional annual plans and budgets	700000	700000	700000	700000	700000	3,500,000
Pillar2:Strategic Priority 3: Integrate safety across NTD planning, implementation, and monitoring	1,858,960	1,858,960	1,858,960	1,858,960	1,858,960	9,294,800
Advocate for improved funding for pharmacovigilance	130,000	130,000	130,000	130,000	130,000	650,000
Support Namibia Medicines Regulatory Authority in the areas of registration and Pharmacovigilance for both human and animal health medicines	360,000	360,000	360,000	360,000	360,000	1,800,000
Conduct orientation of health care professionals on pharmacovigilance for NTD medicines	360,000	360,000	360,000	360,000	360,000	1,800,000
Collect all data on Adverse Event following drug administration including MDA	490,000	490,000	490,000	490,000	490,000	2,450,000
Conduct follow-up on those AEFI to determine the risk- benefit profile of medicine.	218,960	218,960	218,960	218,960	218,960	1,094,800
Communicate finding of follow-up on those AEFI to the national Therapeutic Information Pharmacovigilance Center (TIPC).	180,000	180,000	180,000	180,000	180,000	900,000
Support improvement and strengthening of pharmacovigilance data management, quality and reliability at district, regional and national level	120,000	120,000	120,000	120,000	120,000	600,000
Pillar3:Strategic Priority 1: Promote and strengthen country ownership and leadership through organizational structures at national and local government with dedicated funding	5788000	5788000	5788000	5788000	5788000	28,940,000
Strengthen the NTD TWG with inclusion of other relevant stakeholders	448000	448000	448000	448000	448000	2,240,000

Establish an NTD Steering Committee	440000	440000	440000	440000	440000	2,200,000
Organize quarterly and bi-annual meetings of TWG and Steering Committee respectively	944000	944000	944000	944000	944000	4,720,000
Conduct annual stakeholders' meeting on NTDs	448000	448000	448000	448000	448000	2,240,000
Produce/Print and disseminate NTD annual plans to all relevant stakeholders	250000	250000	250000	250000	250000	1,250,000
Support regions to develop annual NTD annual plans	2500000	2500000	2500000	2500000	2500000	12,500,000
AppointAdvocacy visits to all Town councils to enact byelaws in local authorities to enforce meat inspections and vaccination of dogs and cats national and regional NTD ambassadors	120000	120000	120000	120000	120000	600,000
Commemorate the Global NTD Day and incorporate NTD commemoration day into annual stakeholders (ministerial) calendars	390000	390000	390000	390000	390000	1,950,000
Establish coordination mechanism on One Health approach for all NTDs	180000	180000	180000	180000	180000	900,000
Engage various donors and partners to mobilize funding for NTDs activities	68000	68000	68000	68000	68000	340,000
Pillar3:Strategic Priority 2: Empower local government and authorities in social mobilization, risk and crisis communication, behavioural change and building local support for NTD interventions	2370000	2370000	2370000	2370000	2370000	11,850,000
Develop an SBC framework and plan for NTDs including risk and crisis communication	300000	300000	300000	300000	300000	1,500,000
Review existing IEC materials on NTDs	180000	180000	180000	180000	180000	900,000
Develop and produce IEC materials including translation in major local languages (print, electronic and social media) for NTDs	360000	360000	360000	360000	360000	1,800,000
Develop an SBC framework and plan for NTDs including risk and crisis communication	360000	360000	360000	360000	360000	1,800,000
Review existing IEC materials on NTDs	180000	180000	180000	180000	180000	900,000

Develop and produce IEC materials including translation in major local languages (print, electronic and social media) for NTDs	360000	360000	360000	360000	360000	1,800,000
Conduct national ToT on social mobilization, risk and crisis communication for NTDs	360000	360000	360000	360000	360000	1,800,000
Conduct sub-national training on social mobilization, risk and crisis communication for NTDs	270000	270000	270000	270000	270000	1,350,000
Pillar4:Strategic Priority 1: Promote community involvement and ownership of the program for optimal use of available resources	3990000	3540000	3540000	3540000	3540000	18,150,000
Identify and map platforms to promote community involvement and ownership at various levels	270000					270,000
Develop a framework for community involvement and ownership for NTDs	180000					180,000
Conduct community advocacy interactions with community leaders to promote awareness and support	2000000	2000000	2000000	2000000	2000000	10,000,000
Establish NTD Support Groups	140000	140000	140000	140000	140000	700,000
Advocacy and sensitization visits to Ministry of and traditional rulers' meetings at regional levels	1400000	1400000	1400000	1400000	1400000	7,000,000
Pillar4:Strategic Priority 2: Promote improved communication and awareness at the community level for a successful elimination of the endemic NTDs.	8,390,000	4,690,000	6,190,000	6,190,000	6,190,000	31,650,000
Conduct KAP (Knowledge, Attitude and Practice) study of community awareness on NTDs	1,500,000		1,500,000		1,500,000	4,500,000
Identify and map existing platforms to promote awareness of NTDs at the community level	700,000					700,000
Conduct advocacy and sensitization visits to key religious associations, professional bodies, school health program authorities, Farmers Associations	360000	360000	360000	360000	360000	1,800,000
Incorporate relevant NTD messages into existing channels for improved community engagement and	180000	180000	180000	180000	180000	900,000

sensitization (Religious leaders, Teachers and PTAs, CHWs, schools and farmers information day						
Conduct periodic FGDs	1,500,000			1,500,000		3,000,000
Conduct town hall meetings on NTDs	700000	700000	700000	700000	700000	3,500,000
Conduct Inter-personal communication (IPC) and women group sessions on NTDs	1000000	1000000	1000000	1000000	1000000	5,000,000
Conduct awareness campaigns through print and electronic media including use of social media	1750000	1750000	1750000	1750000	1750000	8,750,000
Conduct other awareness campaigns using traditional channels e.g. dance/theatre groups, town announcers, etc	700000	700000	700000	700000	700000	3,500,000
Grand Total	134,181,490	114,478,638	126,240,140	105,600,140	105,435,140	585,935,548