Republic of Namibia

NATIONAL ACTION PLAN FOR HEALTH SECURITY (NAPHS)

2021-2025

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FOREWORD

Namibia is signatory to the International Health Regulations (IHR) 2005, which mandates member states to strengthen capacities for health security. The West Africa Ebola epidemic of 2014 and the current Coronavirus Disease, 2019 (COVID-19) pandemic demonstrated the economic damage that large scale epidemics can create, and raised awareness of the need to have strong coordination mechanisms at all levels to prevent the disease from spreading within and outside the country.

The Joint External Evaluation (JEE) that was conducted in Namibia in 2016 revealed critical gaps that need to be filled to protect the population from the next major public health event. These results from the JEE helped to guide the National Action Plan for Health Security (NAPHS) planning process and to develop a roadmap for health security strengthening in the country. Preparedness for health security is like an insurance policy for our national health and prosperity. Strengthening the IHR core capacities and having strong health system will protect lives and increase resilience of the Namibian people to threats of epidemics and disasters. The NAPHS which was developed through a consultative and multi-sectoral engagement, is a tool for the government to comprehensively address the threats to public health security in Namibia.

As most epidemics arise from the interface between human and animal health and the environment, the NAPHS will be implemented under auspices of the One-Health framework with technical oversight from the Ministries of Health and Social Services; Agriculture, Water and Land reform; and Environment, Forestry and Tourism. Successful implementation of the NAPHS in Namibia will significantly contribute to improved national health security and attainment of the health-related Sustainable Development Goals (SDGs) as well as Universal Health Coverage (UHC). The country has National and sector-specific Disaster-Risk Management legislation and policies which are expected to be in alignment with IHR 2005. Capacity building is needed to ensure that we can continue our effective legacy of a strong immunization system, workforce development program, keep our food and water supplies safe, improved environmental sanitation and waste management, keep our health workers protected from infections, and ensure that we have routine systems in place for early warning and response to outbreaks and public health events. The activities presented in this document represent the minimum needed investments, and cost approximately NAD 115 264 697 (about USD 8 million) per year. The Ebola epidemic and global pandemics like Severe Acute Respiratory Syndrome (SARS) and COVID-19 costed billions of dollars to contain and have had large effects on economic growth. Small investments in our public health systems now can prevent major economic damage from the next epidemics. We have carefully come to consensus about major priorities for action, based on the JEE, Performance of Veterinary Services assessment, risk assessments, and institutional priorities. We encourage all stakeholders from public and private sectors, to carefully review this document and use it as a country-owned roadmap for health security

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PREFACE

Namibia has been confronted with numerous outbreaks since 2006, including Polio, Measles, Influenza H1N1, Cholera, Hepatitis E Virus (HEV) and current COVID-19 pandemic. An outbreak of pandemic influenza H1N1 was reported in 2009 with 72 confirmed cases and 1 death. During the post–pandemic period (i.e. during 2010) a total of 9,069 H1N1 suspected cases were reported, of which 102 were confirmed. In in 2011, another H1N1 outbreak was reported in Ohangwena with 3,155 cases. A cholera outbreak was also reported in Kunene region from December 2013 to January 2014 with 287 reported cases and 10 deaths. The country has been battling Hepatitis E outbreak for more than two (2) years, since 2017 with numerous hospitalizations and consequent mortality, especially among pregnant women. The country recorded the first two COVID-19 cases on 13th March 2020. As of 29 November 2020, a total of 14345 confirmed cases and 151 deaths have been recorded in all fourteen regions.

The country has also been experiencing animal disease outbreaks such as Foot and Mouth disease annually as well as Rift Valley Fever between 2009 and 2010, Newcastle disease outbreak in 2016. Anthrax outbreaks have also been reported in Kunene, Oshikoto, Kavango and Zambezi regions over the past few years. Most of these events have caused devastation of animal stocks and resulted in losses in agricultural productivity and food security. The human populations continue to suffer health consequences of zoonosis. Several cases of Crimean-Congo Hemorrhagic Fever (CCHF), rabies and human cases of anthrax have recently been recorded each year.

Moreover, the country experiences a number of emergencies related to climate change and environmental safety. Natural disasters such as floods, droughts and desertification with impact on public health have been observed. The environment plays an important role in human health. Environmental degradation with increasing population pressure are steadily playing a role in the transmission of diseases and other public health threats to humans, both in rural and urban settings.

These events have highlighted that efficient government collaboration is critical for effective preparedness and response to these emergencies when they arise. Namibia has responded to and contained these events, but further steps must be taken to detect them earlier to prevent illness and death.

This National Action plan for Health Security (NAPHS) will facilitate multi-sector engagement using a One Health approach and guide implementation of activities for progress towards attainment of International Health Regulations (IHR) 2005 core capacities in Namibia, that are required for enhancing Global Health Security.

The Government of the Republic of Namibia commit to put necessary resources, systems and processes in place to support the implementation of activities in collaboration with relevant stakeholders, as outlined in this plan.

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- Office of the Prime Minister (OPM), Ministry of Agriculture Water and Land Reform (MAWLR); Ministry of Environment, Forestry and Tourism (MEFT); Ministry of Finance (MoF); The National Planning Commission (NPC); Ministry of Urban and Rural Development (MURD); Ministry of Defence (MoD); Agro-Marketing Trade Agency (AMTA); Namibia Port Authority (NAMPORT); National Commission on Research and Science Technology (NCRST); University of Namibia (UNAM); University of Science and Technology (NUST); Namibia Red cross Society (NRCS), Ministry of Home Affairs, Immigration, Safety and Security (MHAI), Ministry of Information and Communication Technology (MICT); Ministry of Works and Transport (MWT); Namibia Airport Company (NAC); Office of the OIE coordinator in Namibia; Namibia Institute of Pathology (NIP) and City of Windhoek;
- The WHO Head Quarter and WHO AFRO Region for their technical assistance in various phases of the development of this NAPHS;
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- The NAPHS Task Force and the secretariat that consisted mainly of the following MoHSS staff: Mr. Benson Ntomwa, Mr Gerard Benade, Ms Philomena Ochurus (Director, HIRD), Ms Undjee Kaura, Ms Emmy Ndevaetela, Ms Selma Robert-Matyenyika, Mr Gabriel Joseph and Ms Ndiitodino K Kakehongo;
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LIST OF ABBREVIATIONS/ACRONYMS

AU	African Union
AG	Attorney General
AMTA	Agro-Marketing Trading Agency
AMR	Antimicrobial Resistance
CAPSCA	Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation
CCHF	Crimean-Congo Haemorrhagic Fever
CCN	Council of Churches in Namibia
CDC	Centers for Disease Control and Prevention
COVID-19	Coronavirus Disease
CVL	Central Veterinary Laboratory
DDRM	Directorate of Disaster Risk Management
EOC	Emergency Operation Centre
EU	European Union
FAO	Food and Agriculture Organization
FELTP	Field Epidemiology and Laboratory Training Program
GAP	Global Antimicrobial Resistance Plan
Global Fund	Global Fund for AIDS, Tuberculosis and Malaria
GHSA	Global Health Security Agenda
IAEA	International Atomic Energy Agency
IHR	International Health Regulations
IOM	International Organization for Migration
JEE	Joint External Evaluation
LRDC	Law Reform and Development Commission
MAWLR	Ministry of Agriculture, Water and Land Reform
MoD	Ministry of Defence

MEFT	Ministry of Environment, Forestry and Tourism
MoF	Ministry of Finance
MFMR	Ministry of Fisheries and Marine Resources
MGECW	Ministry of Gender Equality and Child Welfare
MoHSS	Ministry of Health and Social Services
MHE	Ministry of High Education, Training and Innovation
MHAISS	Ministry of Home Affairs, Immigration, Safety and Security
MITSMED	Ministry of Industrialization, Trade and SME Development
MICT	Ministry of Information, Communication and Technology
MIRCO	Ministry of International Relations and Cooperation
MoJ	Ministry of Justice
MLIREC	Ministry of Labour, Industrial Relations and Employment Creation
MME	Ministry of Mines and Energy
MPESW	Ministry of Poverty Eradication and Social Welfare
MPE	Ministry of Public Enterprises
MSYNS	Ministry of Sport, Youth and National Services
MURD	Ministry of Urban and Rural Development
MWT	Ministry of Works and Transport
NAC	Namibia Airports Company
NCCA	Namibia Civil Aviation Authority
NCRST	National Commission on Research Science and Technology
NMRC	Namibia Medicines Regulatory Council
NAMPORT	Namibia Port Authority
NAMPOL	Namibian Police
NRCS	Namibia Red Cross Society
NSFAF	Namibia Student Financial Assistance Fund
NUST	Namibia University of Science and Technology
NAPHS	National Action Plan for Health Security
NPC	National Planning Commission
NPHI	National Public Health Institute
OAG	Office of the Attorney General

OIE	World Organization for Animal Health
OPM	Office of the Prime Minister
PEPFAR	President's Emergency Program for AIDS Relief
PoE	Point of Entry
PHEOC	Public Health Emergency Operation Centre
PPE	Personnel Protective Equipment
SPP	Strategic Partnership Portal
UNAM	University of Namibia
UNDP	United Nations Development Programme
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organisation

EXECUTIVE SUMMARY

The magnitude and frequency of disease outbreaks and health emergencies in Africa, new emerging risks such as Zika, the expansion of known diseases like Cholera and Ebola and the re-emergence of others such as yellow fever, demonstrate the urgent need for sustained preparedness and capacity building in WHO Member States. Namibia is no exception, experiencing outbreaks such as Cholera, Rift Valley Fever, Dengue, Anthrax, Hepatitis E and COVID-19 with high morbidity, mortality, and socio-economic impact.

WHO Member States have agreed to work together to prevent, detect and respond to public health emergencies under the International Health Regulations (2005). A World Health Assembly (WHA) decision in May 2016 requested WHO to develop a global implementation plan that includes immediate planning to improve delivery of the International Health Regulations (2005). The IHR Global Strategic Action Plan recommends that Member States, with the support of WHO and development partners, develop and implement 5-year national action plans. In August 2016, the AFR Regional Strategy for Health Security and Emergencies was adopted by the Regional Committee in Addis Ababa. It sets the framework and milestones for ensuring health security in the WHO African region. Member States have also agreed to work towards Universal Health Coverage and to build resilient health systems which can adapt and respond to challenges posed by outbreaks and other emergencies.

Namibia, like several Member States in the WHO/AFR region, is committed to implementing the WHO IHR Monitoring and Evaluation Framework. This includes the voluntary Joint External Evaluation (JEE) of IHR core capacities that should be followed with a national action plan to achieve and sustain core capacities. Since adoption of the International Health Regulations, Namibia has carried out several assessments of country capacity to prevent the likelihood and reduce the consequences of outbreaks and other public health hazards, and build national capacities for early detection and effective response to public health emergencies and other events of public health concern. To fulfil Article 54 of the IHR 2005, Namibia conducted the JEE in December 2016. Of the 48 indicators assessed, 8 (16.6%) were rated Green (Demonstrated/Sustainable

Capacity), 24 (50%) Yellow, (Limited/Developed Capacity), and 16 (33.3%) Red (No Capacity). The JEE highlighted the commitment of the government of Namibia to strengthen health security, the importance of national financing for sustainability and the role of parliaments in national funding decisions, the key role of community engagement, private sector engagement and the importance of resilient health systems in health security. The meeting further emphasised that strong government ownership, leadership and advocacy are needed. Furthermore, continuous active partnerships of all sectors are required to develop and implement the NAPHS and to fill identified resource and financial gaps.

The plan takes into account a set of guiding principles and core values such as resilience, country ownership and leadership; community engagement; partnership inter-sectoral and multidisciplinary collaboration, evidence-led and forwards looking, and the One health approach.

The Preparatory NAPHS Workshop, supported by WHO, was held from 15 – 17 August 2017 in Windhoek, Namibia. Subsequently, the Ministry of Health and Social Services of Namibia (MoHSS) conducted several stakeholder meetings to cost, review and finalize the 5-year National Action Plan for Health Security (NAPHS) based on the JEE recommendations and other complementary assessments. The NAPHS will be a coordination platform to map and ensure interplay between multiple sectors and other existing plans at all administrative. The country adopted a multi-sectoral approached hinged on the principles of 'One Health' with significant participation in the process from stakeholders from relevant government ministries and agencies, including security authorities. These included the OPM, the Ministries of Health, Agriculture, Urban and Rural Development, Environment, Mines, Finance, Defence and National Planning.

The NAPHS covers all the 19 technical areas required to effectively prevent, detect, and respond to public health threats. Detailed plans for each technical area were developed by multi-sectoral working groups, to cover the period 2021–2025. In line with the Strategic Framework for Health Emergency Preparedness, priority activities were framed taking into account the One Health Approach, Health System Strengthening, Societal, all government and sectoral engagement. The MoHSS has ensured that proposed activities are linked with on-going national strategies and guidelines, including the Sustainable Development Goals (SDGs), Universal Health Coverage (UHC), the Sendai Framework, the 5th National Development Plan (NDP5), Disaster Risk

management (DRM) policy, the DRM Act, the Health Sector Strategic Plan IV, the Harambee Prosperity Plan (HPP), Public and Environmental Health Act No.1 of 2015, the Health Sector National Health Emergency Preparedness and Response Plan (NHEPRP), the AMR National Action Plan and Workforce Capacity strategic plan. The success in the implementation of the NAPHS will depend on the successful management of risks. Potential risks identified in Namibia are of a political, financial and operational order. However, political and security stability, political commitment and macroeconomic stability have been identified as driving forces for the implementation of the NAPHS. Estimated cost to implement all planned activities during 2021–2025is NAD 576,323,486 (38,421,565 US dollars). In the table below, the annual implementation cost per thematic area (Prevent, Detect, Respond and Other IHR related hazards and Point of entry) is summarized.

Table 6: Total cost of NAPHS by thematic area

	2021	2022	2023	2024	2025	TOTAL
Prevent	47,998,054	40,823,388	39,728,428	37,057,004	37,460,764	203,067,640
Detect	69,863,479	52,262,554	49,587,348	48,703,440	48,687,348	269,104,169
Respond	27,345,214	6,853,750	2,232,490	2,232,490	2,232,490	40,896,434
Other IHR related hazards and PoE	14,076,073	16,927,789	10,843,647	10,564,087	10,843,647	63,255,243
Total	159,282,820	116,867,481	102,391,913	98,557,021	99,224,249	**576,323,486**

The top 3 cost drivers are Workforce development: NAD 192,679,462 (33.4%), Antimicrobial resistance: NAD 82,283,344(14.2%) and Point of Entry: NAD 56,768,467 (9.8%). A multi-Agency committee (The One Health platform) will be established to oversees, and when necessary coordinate development and implementation of NAPHS in all sectors to guarantee a systematic and comprehensive approach. It also productively facilitates the collaboration of multi-sector entities in addressing the public health issues that cannot be solved by a single sector.

WHO will continue to coordinate a platform for donors and partners to share, inform, and collaborate in order to strengthen Namibia IHR (2005) capacity and increase our contribution to global health security.

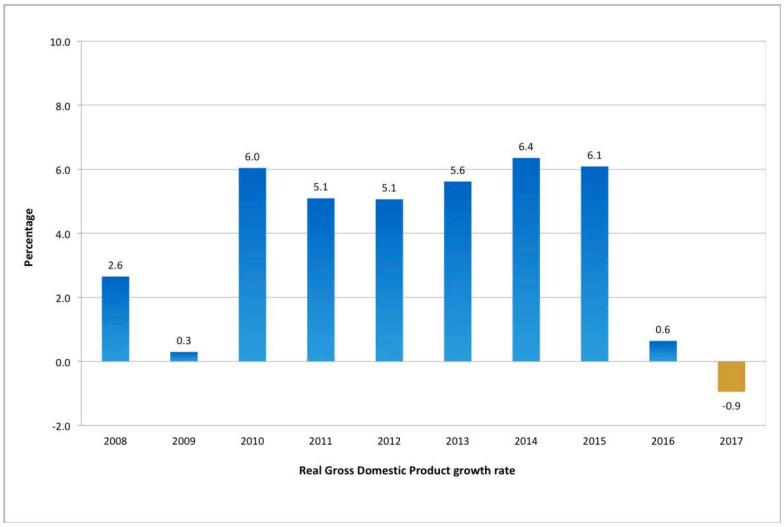
1. BACKGROUND

1.1. Namibia Country Profile

1.1.1 Political and socio-economic profile

According to the 2016 Namibia Inter Censal Demographic survey (NIDS), Namibia has an estimated population of 2.5 million[1]. This figure is the projection from the 2011 population and housing census. The country is situated on the south-western Atlantic coast of the African continent, sharing borders with Angola, Botswana, South Africa, Zambia and Zimbabwe (see figure 1). A large part of the country is covered by two Africa deserts: The Namib to the west and the Kalahari to the east. Namibia is a sovereign, secular, democratic and unitary State, which is divided into the usual three powers of government: Executive, Legislative, and the Judiciary. The head of state is the President who is elected in a national election every five years. Namibia is divided into 14 political regions, which are further sub-divided into 121 regional constituencies. The capital city is Windhoek, which is located in the Khomas Region.

Namibia is classified by the World Bank as an upper middle-income country. In 2017, Namibia domestic economy was estimated to have registered a contraction in real value added of 0.9 % compared to a growth of 0.6 % recorded in 2016[2](Figure 1). In 2018, the DGP was -1.7% at market prices[3]. This is the lowest rate recorded over the last ten years.



Source: Namibia Statistic agency

Figure 1: Real Gross Domestic Product growth rate, Namibia 2017

[1] 2016 Namibia Inter Censal Demographic survey (NIDS)
[2] Namibia Statistic Agency: Annual National Account, 2017
[3] Namibia Statistic Agency: National accounts, Quarter 4 GDP 2018 tables. https://nsa.org.na/page/publications/

In 2017, taxes remained the main source of government revenue, accounting for 57.6 %, followed by Southern African Customs Union receipt with 31.2%. Other source of income including property incomes and other current transfers from rest of world contributed 11.2 percent to government income[4]. Out of all households in Namibia 17% are classified as poor and 11 percent as severely poor with a GINI-coefficient of 0.560.[5]

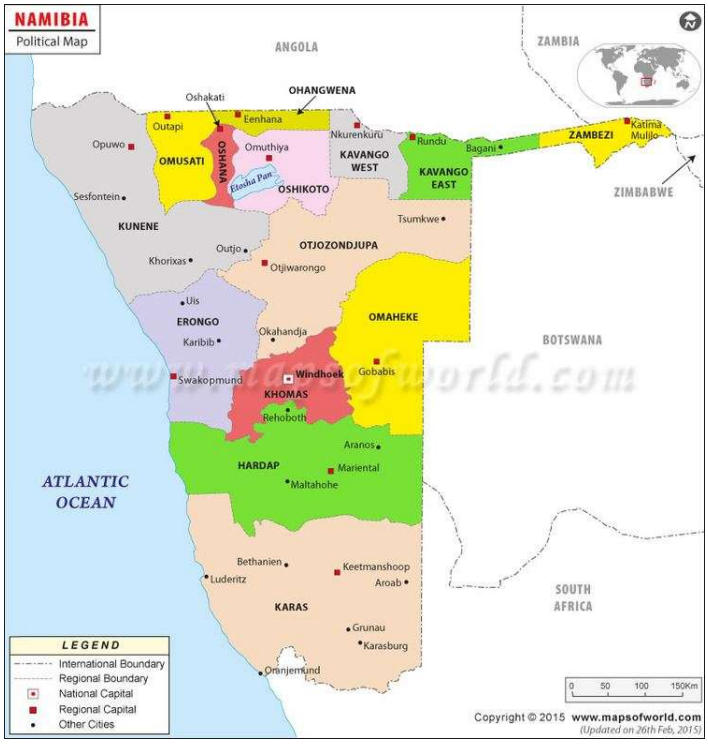


Figure 2: Map of the 14 political regions in Namibia

1.1.2 Situation Analysis-burden of Public Health Emergencies - in terms of morbidity and mortality

1.1.2.1 Burden of public health events in human health

Namibia has recorded several documented human disease outbreaks since 2006. In 2006, the country reported a polio outbreak, which resulted in 19 confirmed polio cases. During 2009-2014 the country reported measles outbreak in most regions, which affected children, particularly in north western and central regions of Namibia. These outbreaks resulted from low immunization coverage. An outbreak of pandemic influenza H1N1 was also reported in 2009 with 72 confirmed cases and 1 death. A post–pandemic period reported 9,069 H1N1 suspected cases in 2010, of which

[4] Namibia Statistic Agency: Annual National Account, 2017.
[5] Namibia Statistic agency: Namibia Household income and Expenditure Survey(NHIES) 2016/2016 Report.

102 were confirmed with subsequent H1N1 outbreaks in which 3,155 cases were reported in Ohangwena in 2011[6].

A cholera outbreak was reported in Kunene region between December 2013 to January 2014 in which 287 cases and 10 deaths were recorded. Although the malaria mortality rate in Namibia declined drastically from 96.5 per 100,000 populations in 2000 to 8.4 per 100,000 population in 2008 (WHO Namibia, 2010), outbreaks have been on the increase in 2017. The country reported 7003 malaria cases between January and February 2017 and an increase in malaria cases ranging between 120-700% in Ohangwena, Oshikoto, Oshana and Otjozondjupa regions between 2014 and 2017. Crimean-Congo Haemorrhagic Fever (CCHF) outbreaks have been documented in Namibia since 1986. In 2019, two CCHF outbreaks were reported; one in Onandjokwe district, Oshikoto region and the other in Omusati region. No death was registered. Also, Hepatitis E Virus outbreak has been reported in September 2017 and has been ongoing to date[7]. The country recorded the first two COVID-19 cases on 13th March 2020. As of 29 November 2020, a total of 14345 confirmed cases and 151 deaths have been recorded. All fourteen (14) regions have reported COVID-19 confirmed cases; Khomas and Erongo regions recorded the highest number with 6435(44.9%) and 4049(28.2%) respectively.

Moreover, the country experiences a number of emergencies related to climate change and environmental safety. Natural disasters such as floods and droughts, which resulted in human suffering and loss of life and property, are therefore common.
The MoHSS has adopted the Integrated Disease Surveillance and Response (IDSR) approach, and the International Health Regulation National Focal Point to facilitate the implementation of International Health Regulations (IHR, 2005). The MoHSS has also a National Health Emergency Preparedness and Response Plan (NHEPRP) that was approved in 2013. This plan aims at coordinating the preparedness and response activities to disease outbreaks and emergencies in the country. The Directorate of Disaster Risk Management (DDRM) under the Office of the Prime Minister (OPM) supports the MoHSS during emergencies, in collaboration with development partners including the UN and Civil Society Organizations, as per the Disaster Risk Management (DRM) Policy.

The government of the Republic of Namibia desires an outcome with respect to infant and maternal mortality as per the Harambee Prosperity Plan (2016-2020), and aims at significantly reducing infant and maternal mortality rate by 2020. Additionally, the National Development Plan (NDP5) targets that by 2022, Namibia's Health Adjusted Life Expectancy (HALE) would have been improved from 58 to 67.5 years. International targets include ensuring healthy lives and promoting the well-being for all at all ages is essential to sustainable development. Significant strides have

[6] Revised National Health Emergency Preparedness & Response Plan, 2013
[7] National Hepatitis E outbreak Sitrep

been made in increasing life expectancy and reducing some of the common killers associated with child and maternal mortality. Major progress has been made on increasing access to clean water and sanitation, reducing malaria, tuberculosis, polio and the spread of HIV/AIDS. The latter is a developmental challenge for Namibia. The high prevalence of HIV at 12.6%[8]is leading to the loss of labour force, erosion of the asset base and diminished capacity to care for children and other vulnerable individuals in Namibia. AIDS is contributing to the increase in orphans and vulnerable children leading to increasing burden on government to provide social protection and support. However, many more efforts are needed to fully eradicate a wide range of diseases and address many different persistent and emerging health issues including natural health hazards and disease outbreaks.

1.1.2.2 Burden of public health events in animal and environmental health

The country has also been experiencing animal disease outbreaks such as Foot and Mouth disease annually as well as Rift Valley Fever between 2009 and 2010, Newcastle disease outbreak in 2016, Anthrax outbreaks in Oshikoto, Zambezi and Kavango east region. Most of these diseases have a potential to cause disease outbreaks in humans[9].

In recent years, the reports on climate related disasters have increased, and extreme climatic events are becoming more frequent and severe globally. Namibia is one of the most arid countries in south of the Sahara. Highly variable climatic conditions are the norm, and the country experiences frequent dry-spells and droughts with sporadic occurrences of flooding in water basins[10]. Drought may destroy crops, plant and animal life and cause water shortage/supply problems for the general population. Earthquakes are not entirely excluded as Namibia has records of seismic activities. Namibia has set up measures to respond to climate change in a National Climate Change strategy and Action Plan 2013-2020.

1.1.2.3 Progress towards achievement of international and national targets

The Sustainable Development Goals[11][12]

Namibia recognises the importance of the global agenda 2030 specified through the 17 sustainable Development Goals(SDGs). The country developed in 2019, a Sustainable Development Goals and Fifth National Development Plan Indicator(NDP5) Framework to reflect the level of alignment of the indicator framework of the current NDP5 and the SDG indicator framework. It further serves as a framework for aligning other national development plans for ease of monitoring and reporting. This document is a supplement to the SDG baseline report, developed in the same year, where detailed information on the 244 indicators of the SDGs monitoring framework is displayed. The

[8] Namibia Population based HIV Impact Assessment – NAPHI 2017
[9] MAWF, DVS's national summary report, July 2010.
[10] National Climate Change strategy and action plan 2013-2020.
[11] Namibia Sustainable Development Goals and Fifth National Development Plan Indicator Framework, 2019.
[12] Namibia Sustainable Development Goal Baseline Report, 2019.

SDG 3 aims at ensuring healthy lives and promoting well-being for all at all ages. One of the means to achieve SDG targets is to strengthen the capacity of all countries in particular developing countries, for early warning, risk reduction and management of national and global health risks. The Namibia SDGs baseline report shows that, according to the WHO statistics, Namibia IHR core capacities has increased from 66% in 2014 to 81% in 2016 and reduced to 79% in 2017[13].

Universal Health Coverage (UHC)[14]

UHC means that everyone receives needed health services without financial hardship. Attaining UHC requires a particular emphasis on *access to health care; quality of health services; affordability; efficiency and service delivery.*

Access to health care services: The MoHSS has defined a set of health service packages for the three levels of health care: Primary Care (Clinics, Health Centres and Community Based Health Services); Secondary level (District Health Services) and Tertiary level (National, Regional Hospitals and Specialized Services). In general access to health care service is hindered by:

(i) The non-availability of the service at the designated point of care is caused by lack of or inadequacy in either or a combination of the following: staff availability; specialised skills or expertise; equipment; pharmaceuticals and clinical supplies; and physical infrastructure;

(ii) Geographic, social and economic barriers arising from lack of transport, long distance to facilities, poor road infrastructure and poverty.

Quality of Essential Health Services: The quality of the health service is fundamental to attain Universal Health Coverage. It is often reported that the standard of health care service provision in the private sector is better than that offered in the state facilities. As a result, many clients tend to seek service from private service providers. The consequence is that they might suffer financial hardship to access private service providers. Overcrowding, long ques and sub-standards service provision are some the issues that are often reported and observed in state hospitals.

Affordability (Household Out-Of-Pocket (OOP) Health Expenditures): As the last 10 years of data (2004-2013) show, Namibia's OOP expenditures have been on average 18.1 percent lower than the mean for all upper-middle-income countries in WHO's AFRO region. Household OOP health expenditures are relatively low and below the WHO limit of 20 percent of Total Health Expenditure (THE), suggesting that Namibians are protected against the financial risk of health payments. However, low OOP can also be a sign that households are not seeking care when needed pointing to an *access to healthcare* problem.

[13] http://apps.who.int/gho/data/node.main.ENVHEALTHJOINTAAPHAP?lang=en
[14] MoHSS, 2018: Universal Health Coverage policy framework (Draft).

The Government established the Public Service Employees Medical Aid Scheme (PSEMAS) for Government employees to assist them and their dependents with cost of medical care. Standard contributions are payable by the employees, while the remainder of the claim expenses are covered by the Ministry of Finance.

Government Expenditure on Health: During the 2014/15 financial year, the Government made the largest contribution to health spending, by contributing 64% of THE, while Government managed 51 percent of THE. The 2014/15 health accounts show that approximately 36 % of THE is used to provide health services for 19% of the population, while 51% of THE must cover the remaining 81%.

Progress is underway to reform the health sector with a view to attain UHC. A number of background studies have been completed to support decision making in the path towards UHC. This includes the Public Expenditure Review; Health Finance Review; Burden of Disease; Unit Cost of Health Services; and Efficiencies amongst other.

Specific policy decision is required to take the UHC Agenda forward and for this reason a UHC Policy Framework has been drafted. This framework articulates the basic principles and strategies that Namibia will adopt in the path towards UHC. At the conclusion of this initiative, the specific strategies will be elaborating to make progress towards UHC. Central and top on the UHC agenda, is to ensure unity of purpose and therefore stakeholder consultations have become the guiding strategy to ensure common vision and understanding is achieved among the different sectors of society.

The 5th Namibia Development Plan

The Namibian 5th National Development Plan (NDP5) has incorporated the SDG 3which aims at strengthening the capacity of all countries, particularly developing countries, to provide early warning, reduce national and global risks and manage health risks, in the area of human capita development, health and nutrition strategy, by setting as a desired outcome in pillar 2 dedicated to social transformation, to offer quality health care to all Namibians and to improve Namibia Health Adjusted Life Expectancy (HALE) from 58 to 67,5 years by 2022[15].

The Ministry of Health and Social Services strategic plan (2017/2018 – 20/22)

Health security is also addressed in the Ministry of Health and Social Services strategic plan 2017/2018 – 2021/2022. The MOHSS has the responsibility of ensuring the wellbeing of the Namibian people. Thus, the first strategic pillar related to "**people well-being"** is focusing on the improvement of public health with the special effort directed at the implementation of programmes that address communicable and non-communicable diseases.

15 Namibian 5th National Development Plan (NDP5), 2018-2022

The Ministry of Agriculture, Water and Forestry strategic plan (2017/18 – 2021/22)

In 2015, the MAWF revised the 1995 National Agricultural Policy and developed the Namibia Food Safety Policy. This is to enhance food and nutrition security at household and national level. One of the key Strategic issue is to Implement and monitor food safety standards, in recognition of the close link between food production and human health; and improve and maintain optimal animal health status and combat zoonosis in Namibia. Among other of the Strategic plan's objective is to promote coordination of the Water and Sanitation sector activities in partnership with relevant stakeholders in order to increase access to potable water and promote hygienic practices.

1.2. Joint External Evaluation (JEE) and other assessments

1.2.1. The Joint External Evaluation of Namibia

The JEE identified the country's strengths and weaknesses in the management of public health events and emergencies. The following main points were highlighted:

- There is political and technical commitment on the part of senior staff in the MoHSS of Namibia, including the minister, the deputy permanent secretary, the former permanent secretary, as well as from senior staff from the Ministry of Agriculture, Water and Forestry (MAWF);
- Several laws and policies exist to support the implementation of IHR (2005);
- The IHR coordination, advocacy and communication mechanism is designated and includes an IHR national focal point for reporting to WHO, and a delegate for reporting to the World Organisation for Animal Health (OIE) and Food and Agriculture Organization of the United Nations (FAO);
- Health emergency management committees have been established at national, regional and district levels.
- There is a robust laboratory system and network in both human and animal health, with web-based laboratory results shared with regional and district hospitals, and some health centres, with clear oversight by the Namibia Institute of Pathology (NIP);
- There is a strong real-time surveillance system, with indicator-based and syndromic surveillance, and some event-based surveillance using the Integrated Disease Surveillance and Response (IDSR) strategy, which also includes surveillance of zoonosis;
- The ongoing investment in the education of health professionals is impressive. Namibia is investing in the future and offering graduates a clear career path in their own country. In areas where the country lacks capacity in human resources, Namibia has established memoranda of understanding (MoUs) with foreign academic institutions, and a Field Epidemiology Training Programme (FETP) has been established;
- Regarding zoonosis and the One Health approach, Namibia has well-organized veterinary services and its zoonotic surveillance system has qualified staff at all three levels. There is in

country training for veterinary professionals and para-professionals. The zoonotic surveillance system is complimented by well-established human-health sector real-time surveillance. A dog-related rabies-control program has been initiated as a pilot in one district and this is planned for expansion to the whole country;

- A great variety of messaging channels are used for risk communication and engages the community at all levels.
- Notwithstanding the considerable efforts, significant challenges remain to be addressed to strengthen the country's health security:
- There is a lack of clarity around the participation, roles, responsibilities, relationships and authorities of key organizations such as the office of the prime minister, the ministries of environment, wildlife, and home affairs, port authorities, and other relevant stakeholders. This presents a risk in the event of rapidly escalating situations that result in losing precious time for ministerial-level decision making;
- Clarification in advance through coordination bodies and formal policy documents will ensure all stakeholders can act within clear lines of responsibility and authority. Moreover, there remain challenges with respect to coordination of all relevant stakeholders underpinned by the One Health approach. There is, therefore, a need to improve the participation and engagement of other sectors (such as the agriculture ministry, port authorities, the environment and wildlife sectors, and security agencies) through strengthening the One Health coordination mechanism;
- Collaboration between human health, animal health and wildlife should be strengthened through the establishment of a One Health platform. This platform could provide a forum for sharing data between sectors;
- Namibia needs to review its public health workforce strategy to include all relevant professionals for health security, including epidemiologists, veterinarians, social scientists, and logisticians. Furthermore, there will be a need to establish minimum staffing norms for health security at all levels.

The JEE colour scoring system

The implementation status of each core capacity is indicated by a score, which reflects the country's level of advancement, its capacity to institutionalize technical area competencies, and ensure that they are sustainable. The following describes the level of advancement or scoring with colour coding:

1. **No capacity**: Attributes of a capacity are not in place. Colour code Red ●
2. **Limited capacity:** Attributes of a capacity are in development stage (implementation has started with some attributes achieved and others commenced). Colour code: **Yellow** ●
3. **Developed capacity:** Attributes of a capacity are in place; however, sustainability has not been ensured (such as through inclusion in the operational plan of the national health sector plan with a secure funding source). Colour code: **Yellow** ●

4. Demonstrated capacity: Attributes are in place and sustainable for a few years, and can be measured by the inclusion of attributes or IHR core capacities in the national health sector plan and a secure funding source. Colour code**:** **Green**

5. Sustainable capacity: All attributes are functional and sustainable, and the country is supporting one or more other countries in their implementation. This is the highest level of the achievement of implementation of IHR core capacities. Colour code: **Green**

Out of the 48 indicators assessed, 8(16.6%) were rated Green (Demonstrated/Sustainable Capacity), 24 (50%) Yellow (Limited/Developed Capacity), and 16 (33.3%) Red (No Capacity). (figure 2)

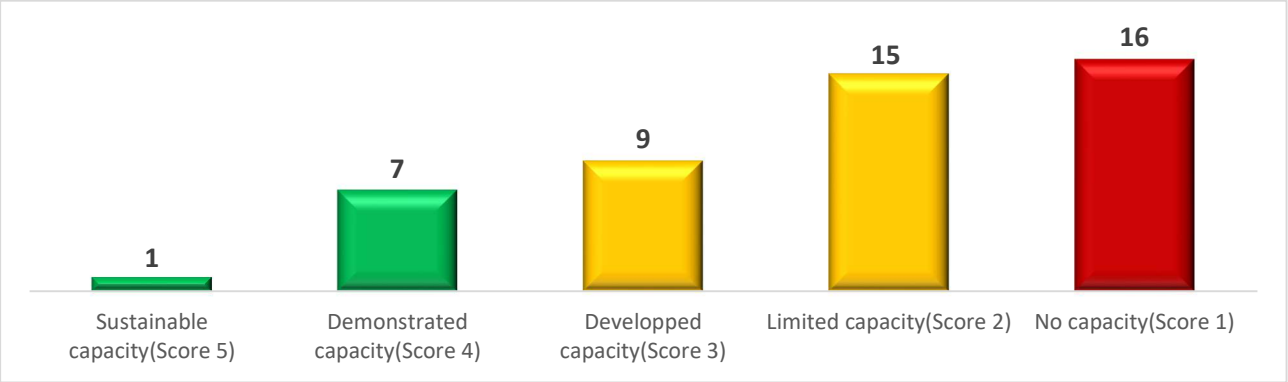


Figure 3: Number of indicators per JEE score (N=48)

The following table shows the distribution of the 19 technical areas per JEE score.

Table 1: Distribution of technical areas per average JEE indicator score

JEE scoring System	No capacity (Score 1)	Limited capacity (Score 2)	Developed capacity (Score 3)	Demonstrated capacity (Score 4)	Sustainable Capacity (Score 5)
JEE technical areas	Antimicrobial Resistance	IHR Coordination, Communication and Advocacy	National Legislation, Policy and Financing	National Laboratory System	
	Preparedness	Reporting	Zoonotic Disease		
	Emergency Response Operations	Linking Public Health and Security Authorities	Food Safety		
	Medical Countermeasures	Risk Communication	Immunization		

	and Personnel Deployment				
	Points of Entry (PoE)	Radiation Emergencies	Real-Time Surveillance		
	Chemical Events		Workforce Development		
	Biosecurity/Biosafety				

The outcome of the JEE assessment is detailed in the table below:

Table 2:Capacities, indicators and scores achieved during the voluntary JEE assessment, Namibia

Technical area	Indicators	Score
National legislation, policy and financing	P.1.1 Legislation, laws, regulations, administrative requirements, policies or other government instruments in place are sufficient for implementation of International Health Regulations (IHR) (2005)	3
	P.1.2 The state can demonstrate that it has adjusted and aligned its domestic legislation, policies and administrative arrangements to enable compliance with IHR (2005)	3
IHR coordination, communication and advocacy	P.2.1 A functional mechanism is established for the coordination and integration of relevant sectors in the implementation of IHR	2
Antimicrobial resistance	P.3.1 Antimicrobial resistance detection	1
	P.3.2 Surveillance of infections caused by resistant pathogens	1
	P.3.3 Healthcare associated infection prevention and control programmes	1
	P.3.4 Antimicrobial stewardship activities	1
Zoonotic disease	P.4.1 Surveillance systems in place for priority zoonotic diseases/pathogens	5
	P.4.2 Veterinary or animal health workforce	4
	P.4.3 Mechanisms for responding to zoonoses and potential zoonoses are established and functional	2
Food safety	P.5.1 Mechanisms are established and functioning for detecting and responding to foodborne disease and food contamination	3
Biosafety and biosecurity	P.6.1 Whole-of-government biosafety and biosecurity system is in place for human, animal and agriculture facilities	1
	P.6.2 Biosafety and biosecurity training and practices	1
Immunization	P.7.1 Vaccine coverage (measles) as part of national programme	3
	P.7.2 National vaccine access and delivery	4
National laboratory system	D.1.1 Laboratory testing for detection of priority diseases	4
	D.1.2 Specimen referral and transport system	4
	D.1.3 Effective modern point-of-care and laboratory-based diagnostics	3
	D.1.4 Laboratory quality system	4
Real-time surveillance	D.2.1 Indicator- and event-based surveillance systems	3
	D.2.2 Interoperable, interconnected, electronic real-time reporting system	2
	D.2.3 Analysis of surveillance data	3
	D.2.4 Syndromic surveillance systems	4
Reporting	D.3.1 System for efficient reporting to WHO, FAO, and OIE	2
	D.3.2 Reporting network and protocols in country	3
Workforce development	D.4.1 Human resources are available to implement IHR core capacity requirements	2
	D.4.2 Field epidemiology training programme or other applied epidemiology training programme in place	4
	D.4.3 Workforce strategy	2

Preparedness	R.1.1 Multi-hazard national public health emergency preparedness and response plan is developed and implemented	2
	R.1.2 Priority public health risks and resources are mapped and utilized	1
Emergency response operations	R.2.1 Capacity to activate emergency operations	1
	R.2.2 Emergency operations centre operating procedures and plans	1
	R.2.3 Emergency operations programme	1
	R.2.4 Case management procedures are implemented for IHR relevant hazards.	2
Linking public health and security authorities	R.3.1 Public health and security authorities (e.g. law enforcement, border control, customs) are linked during a suspect or confirmed biological event	2
Medical countermeasures and personnel deployment	R.4.1 System is in place for sending and receiving medical countermeasures during a public health emergency	1
	R.4.2 System is in place for sending and receiving health personnel during a public health emergency	1
Risk communication	R.5.1 Risk communication systems (plans, mechanisms, etc.)	1
	R.5.2 Internal and partner communication and coordination	2
	R.5.3 Public communication	3
	R.5.4 Communication engagement with affected communities	2
	R.5.5 Dynamic listening and rumour management	2
Points of entry	PoE.1 Routine capacities are established at points of entry	1
	PoE.2 Effective public health response at points of entry	1
Chemical events	CE.1 Mechanisms are established and functioning for detecting and responding to chemical events or emergencies	1
	CE.2 Enabling environment is in place for management of chemical events	2
Radiation emergencies	RE.1 Mechanisms are established and functioning for detecting and responding to radiological and nuclear emergencies	2
	RE.2 Enabling environment is in place for management of radiation emergencies	2

1.2.2. Other assessments

1.2.2.1. Capacity Assessment of the Disaster Risk Management System in Namibia

Namibia experiences a complex combination of factors which renders it vulnerable to disasters and hazards such as floods, drought and desertification with impact on public health. In order to address the challenges posed by the disaster and climate risk facing the country, the Government of Namibia set up a National Disaster Risk Management System (NDRMS). In the wake of the drought triggered by the El Nino phenomenon in 2016 which has affected Namibia along with the Southern Africa sub-region, the Government seized the opportunity to undertake a capacity and needs assessment of the NDRMS. The purpose of the assessment was to identify priority actions required for building the NDRMS capacity at all levels to reduce the risk of

disasters, enhance preparedness levels, and to ensure swift recovery capacity after an emergency. A national capacity assessment was thus undertaken under the leadership of the Government of Namibia through the Directorate Disaster Risk Management(DDRM) in the Office of the Prime Minister. The exercise was supported by the UN System through the UN Country Team, the Capacity for Disaster Reduction Initiative (CADRI) and experts deployed through the United Nations Disaster Assessment and Coordination (UNDAC) system. The national capacity assessment identified existing capacities, gaps and needs related to disaster risk management, and proposed a set of prioritized recommendations[16] on how these capacities can be strengthened including the following:

- Conduct multi-hazard risk assessment, develop and update regularly a national multi-hazard risk profile of the country;
- Develop SOPs and formalize data and information exchange among various technical institutions, line ministries, DDRM, Namibia Statistic Agency (NSA), Universities etc;
- Develop a national DRM awareness and communication strategy to include, among others public and community awareness campaigns at national and local levels through TV, radio, social media, printed material, dedicated national days;
- Increase capacity in disease prediction, mapping, training, simulation and coordination and Develop emergency preparedness plans for hospitals;
- Budgets should be slowly decentralised, allocated and easily accessible for emergencies;
- A national roster of trained and prepared volunteers could be established to enhance capacities and support the emergency response activities all-over Namibia, using already trained personnel;
- Capacities of stakeholders should be built at all levels in contingency planning through training. This will improve their state of preparedness to different hazards in the country.

1.2.2.2. Assessment of core capacities for the implementation of IHR (2005) in Namibia, 2010[17]

The assessment of the IHR core capacities was conducted in Namibia between November and December 2010. The purpose of the assessment was to determine the current status of core surveillance, response capacities and other system requirements for the full implementation of the IHR (2005). HR Legislation and Policy, IHR Coordination, Surveillance, Response, IHR Preparedness, Risk Communication, Human Resource, Laboratory and Potential hazards were assessed at national, regional, district, health facilities and points of entry. Key recommendations[13] include:

- Establish a functional coordinating committee on IHR at all levels;
- Review public health legislation and align all relevant policies and guidelines with IHR;

[16] Capacity Assessment of the Disaster Risk Management System in Namibia, 2016
[17] 5-year plan of action for implementation of International Health Regulations (2005) in Namibia 2012-2016

- Advocate and lobby central government and private sector to ensure continuous support of IHR activities;
- Incorporate other hazards such as chemical and radioactive into the existing surveillance system and develop surveillance guidelines and manuals to cover zoonotic, nuclear, chemical and other events;
- Develop training programmes on surveillance to cover all relevant staff and role players;
- Strengthen the functions of international border control including regular cross border meeting

and other cross border initiatives;

- Develop preparedness plan, guidelines, Standard Operation Procedures (SOPs) for preparedness and response to all potential hazards;
- Establish and train Rapid Response Teams;
- Increase capacity of laboratory facilities to cater for confirmation of events of all hazard;
- Institute training courses for health staff;
- Upgrade technical capacity of PoEs to facilitate designation and establish surveillance structures at designated PoEs.

1.2.2.3. Assessments in the Animal health sector

Development and growth of many countries depends on the performance of their agricultural policies and economies. This directly relates to the quality of their Veterinary Services (VS). Important roles for VS include veterinary public health including food-borne diseases and regional and international market access for animals and animal products. To assist in this role, the World Organisation for Animal Health (OIE) and the Inter-American Institute for Cooperation on Agriculture (IICA) have joined forces to develop a tool for the Evaluation of the Performance of Veterinary Services (PVS) of countries. The PVS tool is designed to assist VS to establish their current level of performance, to identify gaps and weaknesses regarding their ability to comply with OIE international standards, to form a shared vision with stakeholders and to establish priorities and carry out strategic initiatives.

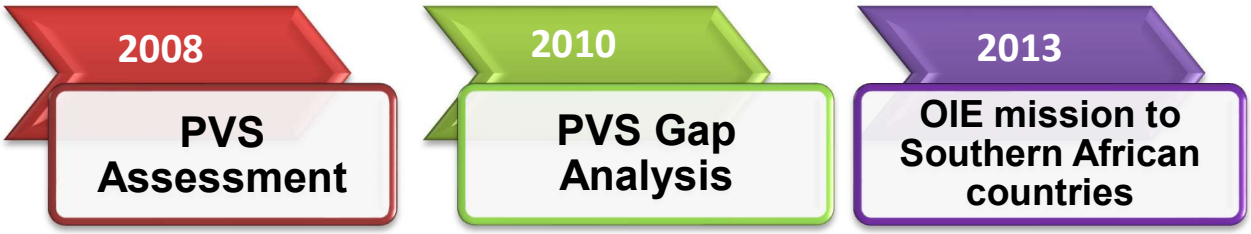


Figure 4: Assessments of veterinary services in Namibia

Namibia requested the OIE for this evaluation through the Namibia's Agricultural Union as one of its congress' resolution. The assessment was conducted in 2008. Keys findings[18] of this assessment revealed that:

- Namibia has very competent Veterinary Services characterized by extremely well-trained professionals. Unfortunately, the Veterinary Services have too many vacant positions, mostly due to an insufficient number of professionals in the country;
- Namibia has established a robust animal identification and traceability system, which is mandatory in the FMD surveillance using the Namibian Livestock Identification and Traceability System (NamLITS);
- Though emerging infectious diseases and the threat of a potential pandemic form of avian influenza have reminded the international community of the importance of a close collaboration between Ministries of Health and Agriculture, there was no apparent evidence of such a link between these two ministries in Namibia;
- The annual budget for VS operations appeared adequate. However, shortfalls in vehicles and transportation expenses were being covered by salary lapse from the many unfilled vacant positions. The overall monthly distance allowances for vehicle use and the reimbursement amount for official use of private vehicles will need revision. The overall budget for the Central Veterinary Laboratory should also be examined.
- In 2010, at the request of the Government of Namibia, A PVS Gap Analysis mission was conducted by OIE certified experts from September 27 to October 8. Key inputs to this Gap Analysis exercise were the report of the PVS Evaluation performed by an OIE certified experts team in 2008 and the National Policy for the Eradication of Trans-boundary Animal Diseases in the Northern Communal Areas of Namibia. The PVS Gap Analysis Team19 noted reports of progress made by Namibia since the 2008 PVS evaluation, and in particular:
- A policy was approved and endorsed for the eradication of trans-boundary animal diseases in the Northern Communal Areas, and plans for (i)enhanced surveillance, (ii)new identification and traceability measures, and (iii) enhanced Border Inspection Posts developed;
- Laboratory Quality Assurance was implemented, and the Central Veterinary Laboratory (CVL) is in the process of seeking accreditation for certain of its functions adding significant additional space, equipment and biosecurity capacity to the CVL;
- The Veterinary Council continued with its efforts to incorporate other expertise into the cadre of recognized professionals. It recently was authorized to include animal health technicians as registered veterinary para-professionals.

[18] OIE mission report evaluation of the veterinary services of the republic of Namibia, August 11 - 22, 2008

[19] Namibia PVS Gap Analysis report, September 27- October 8, 2010.

Despite these important accomplishments, there are still many areas that will need to be addressed in the near future, to address the ambitious goals being set out by the Ministry of Agriculture, Water and Forestry. Improvement priorities, included:

As livestock improvement priorities:

- To provide the necessary facilitating infrastructure and services to the Northern communal Area (NCA), by increasing the number of veterinary field offices and veterinary para-professionals.

As Animal Health priorities:

- To focus on the steps needed to achieve official OIE recognition of the National Foot and Mouth disease (FMD) Control Strategy, leading to FMD freedom in the NCA, as well as the maintenance of the existing free status without vaccination south of the veterinary cordon fence;
- To improve its effectiveness by providing meat inspection services, including ante and post-mortem inspections to all non-export abattoirs in the country;
- To expand its animal disease surveillance coverage, by including all non-export abattoirs in the national animal disease surveillance system.

As Veterinary Public Health priorities, it identified:

- A commitment to improve the control of zoonotic diseases in the NCA;
- To improve its effectiveness by providing meat inspection services, including ante and post-mortem inspections to all non-export abattoirs in the country;
- To expand its animal disease surveillance coverage, by including all non-export abattoirs in the national animal disease surveillance system;
- A commitment to improve the control of zoonotic diseases in the NCA.

Strategies and activities were identified to move toward these ambitious goals. In order to achieve success, there will be a need to:

- Increase the number of highly qualified personnel;
- Provide significant additional physical and financial resources;
- Maintain an efficient, functional, sustainable organization. while undergoing these changes; develop sound and adequate legislation;
- Build an effective information system; and build the required management and leadership capacity.

All of these will have to be addressed through a harmonized and coordinated approach in order to be responding to the critical needs of the Veterinary Service.

In 2013, OIE experts conducted a mission from 27-30 October[20], to southern African countries (Botswana, Namibia, South Africa, Swaziland) and the objective of the mission was to assess the implementation and compliance with the relevant provisions of the ***Terrestrial Code*** to ensure the maintenance of FMD free status. The main emphasis of the visit of the OIE expert mission to Namibia was on assessing the measures in place to protect the status of the OIE allocated free zone for FMD where vaccination is not practiced. At the end of the mission, the experts team was convinced that Namibia is doing all that is necessary to prevent the introduction of FMDV into the free zone. However, they made some observations that might help Namibia to further strengthen its commitment to comply with OIE standards and to assist them in progressing towards the ideal of expanding the official FMD freedom status also to the NCA. Some of the findings included:

- The surveillance system was considered satisfactory but needed to extend interventions over and above inspection during vaccination campaigns. When more personnel become available the country should consider institution of regular cycles of routine inspection on establishments in between vaccination campaigns;
- Diagnostic capacities were also satisfactory. Test confirmation are currently done by OIE FMD Reference Laboratories. However, the team recommended to consider expanding capacity and expertise at CVL to do serology screening;
- Vaccination was also considered satisfactory. The team recommended to continue with post vaccination monitoring programme on a regular basis;
- The findings at the border control post were partially satisfactory, it was recommended to consider increasing visibility of Veterinary Services to public on border post reflecting prohibitions and obligations of public. There is need to identify high risk foci on northern border and increase vigilance for illegal movement of animals and animal products.

Till date, some improvements have been done by the country. In order to provide veterinary supervision and control of disease surveillance related activities in the country, Namibia has established a decentralized network of veterinary infrastructure managed by qualified personnel. In 2014, the number of human resources have been increased as described in the new structure as part of the strategy to meet the needs of achieving FMD and CBPP freedom in the NCA and to protect the free zone from incursion of any other transboundary animal diseases. In addition, the DVS has also developed an integrated disease surveillance and response manual which contains detailed standard guidelines on how to respond to major animal disease outbreaks. Staffs have been trained on the use of the manual.

[20] OIE experts mission, to southern African countries (Botswana, Namibia, south Africa, Swaziland) from 27-30 October 2013, Report on the visit to Namibia (27-30 October 2013)

1.3. Namibia journey from IHR JEE to Country Planning for Health Security

The development of the Namibia NAPHS began with the voluntary enrolment of Namibia among the countries to undertake the JEE. Namibia was among the first nations in Africa to conduct the JEE from 28th November to 2nd December 2016. The JEE report and recommendations were shared with all key stakeholders and published on the WHO website.
The first coordination meeting for health security action planning took place in July 2017 where stakeholders were sensitised on the development of a 5 years NAPHS. Series of workshops were held on pre-planning, finalisation, validation, costing and documenting progress of the plan as stipulated below:

- A pre-planning meeting on the development of the NAPHS was held from the 14th to 17th August 2017 in Windhoek where the objectives were identified, strategies outlined, activities described and an M & E framework laid out;
- The NAPHS finalization meetings were held from the 25th to 27th September 2017 and on the 12th October in Windhoek;
- A WHO team from the AFRO regional office supported the country in the validation process from the 31st October to 2nd November 2017 in Walvis Bay and later in the costing process from 16-18 April 2018, at Gross Barmen, Okahandja;
- An external mission of subject matter expert visited Namibia from the 27th to 31st May 2019 to measure the progress made in the implementation of the NAPHS and possible outcomes following the implementation of the JEE. Recommendations from other IHR M&E framework such as After Action Reviews, Simulation Exercises, State Party Annual Reporting (SPAR) were also examined. The team also intended to identify best practices, challenges and lessons learnt;
- NAPHS activities were prioritized during a consultative meeting held from 30th September to 2nd October 2019. The majority (56%) of the activities were considered as high priority activities using established criteria and scheduled for the first 2 years of the 2021-2022 implementation period; and
- The finalized NAPHS was later validated from the 15th to 16th October 2019, approved by the government of Namibia on the 7th November 2019 by Executives Directors Forum and on the 12th November 2019 by the Ministry of Health Policy Management Development Review Committee (PMDRC); and officially launched on the 7th December 2020.

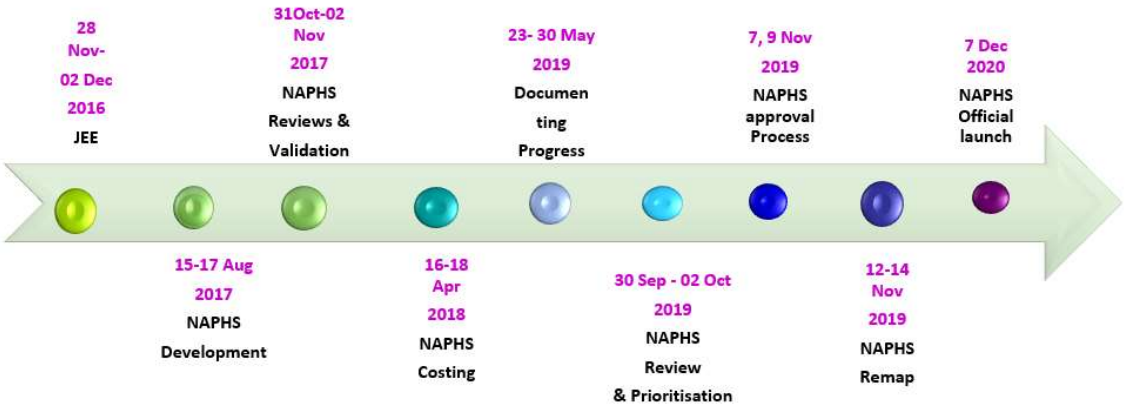


Figure 5: Namibia journey from JEE to NAPHS

2. VISION, MISSION, OBJECTIVES, GUIDING PRINCIPLES AND CORE VALUES

2.1. Vision

A well prepared unified One-Health system to prevent, promptly detect, and effectively respond to Public Health threats.

2.2. Mission

To develop and maintain a national action plan that is comprehensive, multi-sectoral and collaborative to strengthen the Health Security system and improving emergency response to public health threats in Namibia.

2.3. Specific Objectives

1. To obligate rapid effective multi sectoral national and international response through integrated coordination and communication process;
2. To strengthen and sustain core capacity to prevent and mitigate health consequences of outbreaks, disasters and other public health hazards;
3. To strengthen and sustain efficient core capacity for timely detection, reporting and effective multi sectoral, national and international response to health emergencies and all outbreaks;
4. To strengthen IHR core capacities at designated Points of Entry (PoE) in order to implement specific public health measures required to manage a variety of public health risks;

5. To develop surveillance and capacity for chemical risk events and radio-nuclear hazards with effective communication and collaboration among the sectors responsible for chemical safety, radio-nuclear management, industries, transportation and safety disposal; and
6. To strengthen institutional framework to support Health Security and One Health Approach implementation.

2.4. Guiding principles and core values

Resilience: Recognizing the varied staff, programmes, disciplines, sectors and backgrounds with the ultimate aim of reaching a common goal.

Country ownership and leadership: the government of Namibia will provide political and technical oversight for all phases of the NAPHS (planning, implementation and Monitoring & Evaluation), including committing domestic resources to finance the NAPHS.

Community engagement: Community engagement will be achieved through a participatory approach in development and implementation of culturally acceptable and scientifically sound risk communication strategies. Individuals in households with adequate knowledge and skills about prevention of illnesses are able to take timely corrective measures and maintain a healthy lifestyle. Therefore, empowering individuals and households by reaching them through various social groupings can improve people's lifestyles which in turn can improve the individuals' overall health status.

Partnership, inter-sectoral and multi-disciplinary collaboration: The partnership principle will be facilitated through inter-sectoral collaboration at community and involvement of the wide spectrum of all relevant stakeholders at national level. This entails partnership with other government departments, sectors, development partners, and academia.

Evidence-led and forward looking: To take into account emerging trends, risks and health innovations; and Inter country, regional, sub-regional and cross-border cooperation to reinforce timely information sharing and coordinated interventions.

One Health Approach: One Health is an approach that addresses public health events such as high impact infectious diseases arising at the intersection of human, animal (domestic and wildlife), and environmental interface. This NAPHS is underpinned on the one health approach and will ensure that all phases take into consideration the one health approach.

3. METHODOLOGY AND PROCESS OF DEVELOPING THE NAPHS

3.1. Review of JEE and other assessments recommendations

The NAPHS development in Namibia was rooted in the NAPHS guide developed by WHO to guide countries in this process. This guide is intended for national health authorities and stakeholders involved in developing and strengthening national action plans for health security and public health emergencies. It provides a set of principles and key issues for consideration in developing such plans, within the context of assessing, reviewing and strengthening national capacities for health security and public health emergencies. Following the JEE, under the leadership of the MoHSS, critical actors in health security in Namibia was mapped and advocacy conducted for support to the national action planning process. In July 2017, a situation analysis was conducted by the Ministry of Health and Social Services of the country's IHR status was conducted to take stock of the current level of capacities for health security. A review of the JEE report, the 2016 capacity assessment report of the disaster risk management system in Namibia, the 2013 OIE audit report of the animal sector and the 2011 assessment of the core capacities for the implementation of IHR in Namibia was conducted in a participatory and inclusive process. This was complimented by discussion and review by the national experts in working groups drawing representation from IHR-relevant sectors. The JEE report recommendations were reviewed for relevance and to ensure existing weaknesses and gaps are addressed per thematic area.

The purpose of this multi-disciplinary and multi-sectoral meeting was to ensure that the planning process takes into account all the available assessments and that a coordinated approach is in the place between different sectors of the government and ministries during the planning and implementation of national action plan for health security. Hence, the stakeholders` meeting was convened by the Ministry of Health and Social services together with WHO - country office and key stakeholders. The specific objectives of the meeting were to:

- Share the outcome of the Joint External Evaluation (JEE) assessment (JEE country report) with participants;
- introduce the IHR implementation plan development process and tools for developing the IHR implementation plan;
- strengthen stakeholders` collaboration and expedite the implementation of IHR 2005 core capacities in Namibia;
- To agree on timeline, roles and responsibilities among participants in undertaking the development and implementation of the IHR core capacities in Namibia.

From the 14th to 17th August 2017, a pre-planning meeting on the development of the NAPHS took place with the following key stakeholders: Three levels of WHO (Country Office, AFRO/HQ) worked with Ministry of Health and Social Services, and the following key stakeholders MAWF, MET, NCRST, NPC, MoD, NAMPOL, NAC, MURD, AMTA, MWT, UNAM, NUST, Ministry

of Mines, MIRCO, OPM and Namibia Red Cross Society (NRCS) and other health development partners (CDC). The objectives of the Pre-Planning workshop were:

- To review, formulate and confirm strategic activities, map out the linkages with wider sector plans and synergies with other existing and relevant national plans and define activity categorization and breakdown (for future costing purposes);
- To sequence/ phase activities (year 1, 2, 3-5) for operationalization commensurate with anticipated resource availability and financial outlook;
- For each technical area, to utilise the best available data to categorise activities in terms of domestic or external funding as appropriate;
- For each technical area, identify responsible Ministries/Offices to take forward agreed activities;
- To review, formulate and confirm sequencing of activities (within year 1, year 2 and beyond) and appraise prioritisation and identification of responsible authorities.

The outcome of the pre-planning meeting led to the drafting of a planning matrix with key activities to be implemented to increase the score for each JEE indicator, as well as an analysis of the country's capabilities, gaps, opportunities and challenges, which were later consolidated by the same stakeholders during a workshop held from the 25th to 27th September 2017. A core team of about 12 people finalized the plan and made it ready for submission. The finalized planning matrix and the narrative was then submitted to AFRO/HQ on 16th October 2017.

The validation and costing of the plan took place in Protea Hotel, Walvis Bay from 16th to 18th April 2018. Three levels of WHO, Ministry of Health and Social Sciences and other health development partners convened as a follow up workshop to validate, facilitate and assist with the final review of priorities, formulation and sequencing of strategies/activities and to cost the activities. In a nutshell, the review and costing exercise reviewed and advised on the following:

- Are the activities that are considered for costing realistic, measurable, specific, time-bound and will exert impact and efficiency to corresponding objective(s)?
- Does the technical area have adequately considered the areas of activities that will allow the country to demonstrate progress from lower to higher score? Likewise, does the plan allow the country to maintain the capacities on areas where it demonstrated capacities (high scores – 4-5).
- The outcome formulation for the 5-year National Action Plan for Health Security: Does the activities under this (specific) technical area identify/include wider sectors and levels for their participation to deliver it by underpinning One Health, Health System Strengthening equity as/where applicable?
- Do the activities follow a sequential / phased approach (year 1, 2, 3-5) for its operationalization commensurate with resource availability and mobilization by utilizing ongoing financial outlook? Does the technical area utilize the best available data to categorize activities in terms of domestic vs external funding?

- Does the technical area identify the responsible Ministries/Offices to take forward agreed activities?

3.2. Prioritisation of activities by technical areas

Based on the result of the situation analysis, thematic working groups developed objectives and strategic actions that address the weaknesses and gaps in the country's health security across the 19 thematic areas. Responsible directorates, programmes, agencies or authorities for implementation per strategic action were identified and relationships to existing plans, project or activities spelled out. This prioritisation process with cross-sector consensus ensured making the best use of resources, ensuring that the greatest needs are addressed and that both the planning and resource allocation are rational and transparent. Each strategic action was operationalized through development of low level activities with coherence to fully address the priority strategic actions, objectives and situation analysis recommendations. A logical framework for coordination and accountability among stakeholders was developed per activity, output and outcomes indicators, and implementation schedule. This will be essential for the monitoring and periodic review of implementation of the plan and inform necessary adjustments to the plan. The prioritisation process will ensure that stakeholders are working towards common goals and expected outcomes.

Six prioritisation criteria were used to select the high priority activities. Each was given a weighted score as described in the table below.

Table 3: Prioritisation Criteria

Priority Actions (Recommandations)	Criterion weight
High Impact: What is the capacity to contribute to the development of health security capacities and to strengthen the health system in a sustainable way?	From 0 to 3
Low hanging fruit: Is it something that can be done quickly, with minimal resources?	From 0 to 2
Known Advocate: Is there a national champion who will deploy energy to support the activity?	From 0 to 1
Not much resources needed: Will it require a lot of resources to complete (human, financial and technical)?	From 0 to 2
Existing resources: Are there existing resources or high potential for obtaining the necessary resources?	From 0 to 3
Complimentarity: Is there complementarity with other plans?	From 0 to 1

For a given activity, after applying all the criteria, when the total score was between the range of 0 to 4, the activity was low priority, between 5 and 8, the activity was of medium priority and

between 9 -12, the activity was considered a high priority activity to be implemented within the first year of the implementation of the NAPHS.

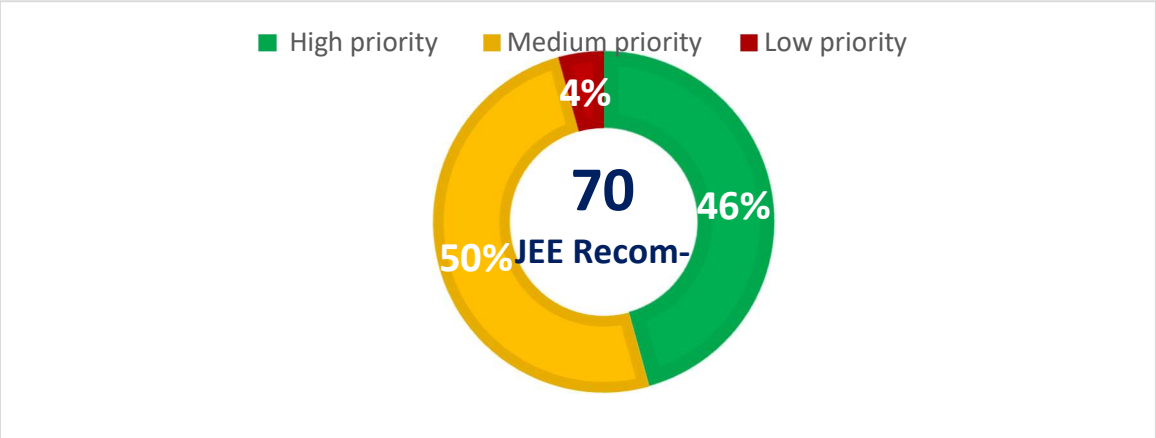


Figure 6: Number of activities per priority level(N=70)

Out of the 70 JEE recommendations, 32(46%) activities were considered to be high priority activities. Those activities are presented in Table 5 below by thematic area and by technical area.

3.3. Linkage with other programmes/initiatives

In the process of developing the NAPHS, a comprehensive review of the strategic actions was conducted to identify overlap with existing plans, programmes and activities. While taking note of this overlap for synergy and integration, necessary adjustments in the plan were made for efficiency and to eliminate duplication. The MoHSS has ensured that proposed activities are linked with the Namibia 5th National Development Plan (NDP5) and the MoHSS Strategic Plan (2017/2018-2021/2022) and the MAWF strategic plan (2017/18 – 2021/22). This NAPHS is also linked with other on-going national strategies, programs and projects including the Sustainable Development Goals (SDGs), the UHC These linkages will enhance adequate and sustainable resource allocation, advocacy, monitoring, accountability and efficiency during implementation.

3.4. Sector Wide Approach

Implementation of the NAPHS will require strong national leadership and ownership by the government. This will improve donor coordination and alignment to reduce or minimize transaction costs, improve aid effectiveness, and increase equity. In the context of One Health, the Government of Namibia will play an overall stewardship and coordination role, and this will be technically led by the MoHSS. Preparedness for and management of health security threats requires a coordinated multi sectoral approach as capacities for surveillance, identification of threats, laboratory confirmation, risk assessment, response and coordination of efforts may involve many sectors outside human health. The process of developing the NAPHS adopted a Sector Wide Approach (SWAp) with the government agencies working together with development partners.

During the preparatory period leading to the JEE and to the development of the NAPHS, the MoHSS took leadership and mapped all government agencies and partner organizations who play a role in implementing health security activities. This widened the scope of participation in conducting the JEE and in action planning. The SWAp strategy has created an environment of dialogue on the status of implementation of IHR (2005), existing challenges and gaps, health sector priorities needs, mechanisms for inter-sectoral collaboration to address these and monitoring and evaluation.

3.5. Strategic partnership for planning

In line with the WHO Strategic Planning Portal (SPP) framework, Namibia fully kept national and international partner organizations including UN agencies (WHO, FAO, OIE) informed of the preparations and progress during the development of the national action plan. This enabled international partners to support the preparatory activities and the planning workshops. The MoHSS also mobilised strategic partnership with other government ministries and agencies and in-country health partners whose cross-disciplinary expertise was critical to the successful preparation and action planning. This further embeds the One Health approach and integrated health security development in the planning process. The MoHSS will take forward this partnership with all relevant stakeholders and existing frameworks (FAO, OIE, Global Health Security Agenda, World Bank and other development agencies) to support the plan for expedited IHR implementation with transparency and accountability in external investment, progress, and the delivery of action plan. Information from the monitoring and evaluation benchmarks will be openly shared on the WHO SPP platform.

4. COMPONENTS OF THE ACTION PLAN

4.1. Strategic actions/strategic Interventions

Table 4: Strategic Actions, Baseline and milestones

Technical area	Strategic Actions/strategic interventions	Baseline 2020	Milestone
National legislation, policy and financing	The National IHR Focal Point should assess the existing legislation, regulations, policies, strategies, plans and guidelines for their content, relevance to IHR (2005) and the One Health approach, especially focusing on possible overlaps, contradictions and out-of-date practices; and report the findings to the MoHSS and the cabinet committee for legislative evaluation.	0	By December 2021, public health law assessed and updated

National legislation, policy and financing	The mechanisms for multisectoral, multi-stakeholder collaboration, SOPs and MoUs for the implementation of the IHR should be reviewed and developed accordingly.	0	By December 2022, MoU and SOPs developed/Reviewed for IHR implementation
National legislation, policy and financing	Adequate funding for the implementation of the IHR at all levels should be ensured.	0	By December 2022, budget line for implementation of the NAPHS activities will be included in the government budget
IHR coordination, communication and advocacy	Strengthen IHR coordination by setting up a functional mechanism, body or office to be responsible for IHR coordination and communication and to ensure availability at all times.	0	-By end of March 2021, a multi-sectoral IHR NFP in place - By end of June 2021, a One health platform established and functional at national level
IHR coordination, communication and advocacy	Implement simulations, drills and post-event action reviews in order to recognize weaknesses in the response processes and continuously monitor and develop IHR performance.	0	By end of November 2021, at least 1 table top Simex conducted every year
Antimicrobial resistance	Establish a National Action Plan for AMR that is aligned with the Global Action Plan as requested by the 68th World Health Assembly Resolution, preferably formulated by a multisectoral committee on AMR with collaboration from public health and animal health authorities.	In place	
Antimicrobial resistance	Designate AMR reference laboratories for human health, animal health, food and environment.	0	By March 2022 AMR reference laboratory designated
Antimicrobial resistance	Establish surveillance of antimicrobial usage and AMR in humans and animals, to generate robust national data.	0	By December 2022, Antimicrobial usage data available By December 2023, AMR pattern surveillance data available

Zoonotic diseases	Adopt a One Health approach that will bring together relevant stakeholders to tackle zoonotic diseases.	0	By December 2021 a One Health zoonotic programme (technical team) in place
Zoonotic diseases	Establish formal mechanisms for sharing information on zoonotic diseases and outbreaks between the animal, human and environment / wildlife sectors at national and regional levels.	0	By December 2021a One Health zoonotic programme (technical team) in place
Zoonotic diseases	Establish proper linkages between public health and animal health laboratories and leverage existing capacities.	0	By April 2023, a national laboratory network in place
Food safety	The monitoring system needs to be expanded to secondary processed foods.	0	By December 2023, Food safety monitoring system expanded to secondary processed food
Food safety	The mechanism for recall, and for the safety of imported food, needs to be expanded to all regions and strengthened in terms of human resources and facilities.	12	By December 2025, recall system expanded in 14 regions
Biosafety and biosecurity	Establish a task force with representatives of (at least) the MoHSS, the NIP, NCRST, the CVL and the environment authority to conduct a needs assessment and develop an integral biosafety and biosecurity plan using the One Health approach. It must include legislation and regulation gaps.	0	By March 2021, a task force established By March 2022, biosecurity/biosafety need assessment performed and biosecurity/Biosafety plan developed
Biosafety and biosecurity	Conduct a comprehensive training needs assessment to identify gaps and start to address the capacity building for biosafety and biosecurity, linking animal and human health experts of government agencies, academia, international cooperation agencies and / or foreign governments. This should be followed by the implementation of a training program in the country.	0	By March 2023, 100 personnel trained on Biosafety/Biosecurity
Biosafety and biosecurity	Organize and conduct simulation exercises addressed to test biosafety and biosecurity with the participation of all stakeholders at least once year after the training has ended.	0	By December 2025, 1 Simex conducted per year

Biosafety and biosecurity	Develop and implement regulations for vaccination (pre-exposure prophylaxis) for laboratory personnel (Hepatitis B, HIV and other relevant diseases).	0	By December 2022, vaccination regulation in place for laboratory personnel for relevant diseases
Biosafety and biosecurity	Develop and implement laboratory licensing and pathogen control measures including requirements for physical containment and operational practices, and containment and failure reporting systems	0	By December 2021, Lab containment procedures measures developed and implemented
Immunization	Strengthen collaboration between animal and human health (under the One Health approach) to prevent and respond to outbreaks. This calls for the need to put in place a mechanism for improved communication and engagement.	0	By December 2021, a communication mechanism in place for human and animal health to improve immunization
Immunization	Improve routine immunization coverage through increased social engagement with mothers and community leaders to increase uptake.	80% (in 2018)[21]	By end 2025, Measles Containing Vaccine (MCV1) immunization coverage increased from 80% to 81%
Immunization	Increase the motivation of community agricultural and health volunteers/extension officers.	Community health workers/extension officer are employed in government	
Immunization	Strengthen mechanisms for quality monitoring of both programmes, including data gathering and sharing.	0	By December 2022, an immunization data quality assessment technical group in place in human and animal sector
National laboratory system	Expand testing capacity for IDSR priority diseases.	0	By December 2024, 5 labs with diagnostic capacities for IDSR priority diseases in place
National laboratory system	Improve laboratory data management and reporting, and develop a laboratory information system (LIS).	0	By April 2023, a national laboratory network in place.

[21] Namibia EPI strategic plan 2018-2022

National laboratory system	Strengthen the laboratory management quality system across the country.	0	By December 2025, a quality management system in place
National laboratory system	Enhance and expand laboratory infrastructures.	0	By December 2025, 4 human Labs and 3 Animal Lab fully equipped to perform Point of Care test
Real-time surveillance	The establishment and implementation of event-based surveillance as outlined in the Namibia IDSR guideline (2011) to complement indicator-based surveillance.	0	By December 2022, Event based surveillance in place
Real-time surveillance	The establishment of interoperable, interconnected surveillance systems for both human and animal health, capable of sharing data with different stakeholders for a timely response.	0	By December 2021, Interconnected and interoperable system in place between human and animal sector in place
Reporting	Strengthen early reporting to WHO, OIE and FAO, and from community level to national level, through the use of simulations of epidemics and exercises.	0	By December 2025, 1 Table Top Simex conducted per year for reporting
Reporting	Conduct after-action reviews (AAR) and Intra-Action Reviews (IAR) to analyse what happened, why it happened, and how it can be done better by all the stakeholders.	0	By December 2025, AAR and IAR conducted after every outbreak.
Reporting	Capacitate the National IHR Focal Point with the authority of reporting to WHO to ensure early reporting and therefore rapid response.	0	By December 2021, IHR NFP capacitated with communication facilities for timely reporting.
Reporting	Review and improve the design of the current disease reporting system using information and communication technologies to improve timeliness, completeness, reliability and to reduce the workload for end users, as well as facilitate prompt response.	0	By December 2022, IDSR module incorporated in DHIS 2 and is operational in all health facilities By December 2023, an electronic reporting system in place in the animal sector.

Reporting	Integrate reporting between ministries by facilitating interfaces among systems already in place, and using common communication channels.	Draft MoU developed between ministries	By December 2025, interoperable system in place
Workforce development	Strongly advocate for continued support for the FELTP to the central government and international organizations.	40 Lab, 35 EHPs, 7 FELTP trained every year	By December 2025, maintain the number of health personnel trained per year
Workforce development	Increase the number of students recruited for training as laboratorians, environmental health professionals and epidemiologists.		
Workforce development	Develop workforce strategy specific to public health fields in collaboration with the UNAM and the MoHSS to increase the retention of staff, create a career ladder, and move people to the places in the country where they are most needed.	Workforce strategic plan in place	By April 2021, workforce strategy in place
Workforce development	Combine the resources of staff and graduates of the FELTP with those of UNAM to maximize expertise for training, research, and mentoring in public health.	0	By December 2022, MoU signed between FELTP program, UNAM and NUST
Workforce development	Create positions for epidemiologists and other public health staff in the organigram and salary plans of the government.	0	By December 2025, epidemiologists position created
Workforce development	Create consensus for the development of a National Public Health Institute (NPHI) as an organ of the MoHSS that is intimately related to public health training programmes in the country.	0	By December 2022, A NPHI in place
Preparedness	The NHEPRP should be updated into a multi-hazard plan, to include biological, chemical and radiological hazards. There should be a One Health approach and whole-society involvement with multisectoral and multidisciplinary participation. Additionally, an identifiable allocated budget should be included for every government organization that participates in such a plan, that is the plan should receive full funding to be implemented. External support, including deployment of technical expertise, will be needed and should be strongly considered.	0	By December 2021, NHEPRP updated and costed to multihazards plan

Preparedness	Key to the development of a multi-hazard preparedness and response plan is the need for the country to undertake risk profiling, and undertake, based on the risk profile included in the NHEPRP, an assessment to map out all the potential hazards in the country.	THIRA done and VRAM process started	By December 2025, country risk profile updated every year
Preparedness	A map that includes all hazards possibly threatening Namibia's health security must be prepared, updating existing reports, documents and studies done in different sectors. It must be made available for all stakeholders at the local, regional, national and international levels.	THIRA done and VRAM process started	By December 2025, hazards mapping updated every year
Preparedness	National or regional simulation exercises / drills to must be organized and implemented in order to Identify gaps, raise awareness and improve societal and governmental preparation for public health emergencies. These drills should relate to the types of hazard that are prevalent in the country.	0	By December 2025, 2 Table Top Simex and 1 functional Simex conducted every year
Emergency response operations	Establish a permanent national PHEOC, with formalized standard plans and response programmes in place.	0	By December 2022, PHEOC plan and SOPs in place
Emergency response operations	Provide ongoing training due to staff turnover, as well as coordinator with stakeholders not present in the PHEOC.	0	By December 2025, 20 staff trained at the PHEOC
Emergency response operations	Prepare for emergencies with which the country is not yet familiar, including disease outbreaks, mass casualty events such as plane crashes and chemical or radiologic disasters through simulations.	0	By March 2022, 2 Table Top Simex and 1 functional Simex conducted every year
Linking public health and security authorities	Establish legal agreements (MoUs, acts of parliament) and SOPs for cooperation between law enforcement authorities and public health and animal health authorities	In place	By December 2021, review existing MoU to consider public health sector By December 2021, SOPs for cooperation available
Linking public health and security authorities	Share information between relevant authorities and conduct joint coordinated exercises and simulations.	0	By December 2025, security forces connected to the interoperable system in place

Linking public health and security authorities	Conduct risk analysis of the potential release (spillage) of pathogens and / or other hazardous materials.	THIRA done and VRAM process started	By December 2025, country risk profile updated every year
Medical countermeasures and personnel deployment	Develop a national plan for deploying Medical Counter Measures (MCM), as well as a personnel deployment plan.	0	By March 2023, MCM and personnel deployment plans in place
Medical countermeasures and personnel deployment	Develop international or multilateral agreements between countries and ministries for receiving and sending personnel and equipment to manage emergencies.	0	By December 2025, international 5 southern region countries agreements for rapid deployment of MCM and personnel during emergencies in place By December 2022 SOPs for MCM and personnel during emergencies in place
Medical countermeasures and personnel deployment	Conduct exercises and simulations once plans have been drafted.	0	By December 2025, 1 table top Simex conducted per year
Risk communication	Strengthen coordination and stakeholder participation in risk communication, including in development of plans and implementation of interventions.	0	By December 2021, a risk communication plan and SOP in place
Risk communication	Build strong working relationships with all relevant sectors.	0	By May 2021, a risk communication committee/platform in place at the national level
Risk communication	Review and develop multi-hazard risk communication strategies.	0	By December 2021, Risk communication strategy in place
Points of entry	Existing air PoEs need to be reviewed to build IHR core capacities, including detection, isolation, and patient transport.	0	By December 2025, HIR core capacities assessed in the 4 PoE
Points of entry	Build models for developing IHR plans at ground PoEs by using the existing excellent Port Health Services system at Walvis Bay.	0	By December 2025, health services system

			in place in 5 ground PoE
Points of entry	Identify major potential hazards to prioritize the development of the most important control measure at air and ground PoEs.	0	By December 2025,risk assessment and hazard mapping in place at the 11 PoE (4 airports, 5 ground crossing and 2 seaports)
Chemical events	A poisons centre needs to be institutionalized.	0	By December 2023, a poison centre in place
Chemical events	A treatment infrastructure programme that will cleanse casualties outside hospitals needs to be constructed.	0	By December 2023, a treatment center in place for management of chemical events affected patients
Chemical events	Medical system personnel need training and practice to coordinate chemical incidents.	0	By December 2021, 55 health professional trained
Chemical events	SOPs to institutionalize multisectoral assessments for the treatment of chemical incident need to be developed.	0	By December 2022, SOPs for management of chemical events in place
Chemical events	Regular controls and unannounced controls need to be performed to maintain safe transportation of chemicals inside and outside enterprises.	0	By December 2025, quarterly field vists conducted
Radiation emergencies	Strengthen the regulatory capacity and consider networking with other regulatory bodies in the region for the control of the import / export of radiation sources.	0	By December 2021, 3 MoU signed with foreign bodies for control of import/export of radiation sources
Radiation emergencies	Finalize the national radiological emergency preparedness and response plan and conduct drills.	Draft	By December 2021, Radiation emergency preparedness and response plan in place
Radiation emergencies	The national radiological emergency response plan must be integrated into the national disaster risk management plan.	0	By December 2021, The national radiological emergency response plan integrated into the

			national disaster risk management plan
Radiation emergencies	Strengthen the advisory role of the Atomic Energy Board to control and manage regional and local authorities on matters relating to radiation safety and radiological emergencies.	Atomic energy Act reviewed	By December 2022 Atomic Energy Act approved
Radiation emergencies	Assess the needs in terms of technical capabilities and develop risk assessment procedures, especially at PoEs to ensure control and monitoring of radiation sources.	0	By December 2023, need assessment conducted in 11 PoEs
Radiation emergencies	Strengthen the regulatory infrastructure, especially the development of radiation emergency response and preparedness plans at all facilities and by all national institutions that are involved with radiation sources.	0	By December 2025, Atomic Energy Act is revised in order to strengthen the Atomic Energy Board.

4.2. Planning matrix of priorities – short term (12 months) to long term (> 12 months)

Using the six prioritization criteria described in the prioritization section above, the following key activities were considered as high priority activities to be carried out within the first year of implementation of the NAPHS.

Table 5: High priority activities with score between 9-12

Technical areas	High priority activities
Prevent	
National legislation, policy and financing	The National IHR Focal Point should assess the existing legislation, regulations, policies, strategies, plans and guidelines for their content, relevance to IHR (2005) and the One Health approach, especially focusing on possible overlaps, contradictions and out-of-date practices; and report the findings to the MoHSS and the cabinet committee for legislative evaluation.
IHR coordination, communication and advocacy	Strengthen IHR coordination by setting up a functional mechanism, body or office to be responsible for IHR coordination and communication and to ensure availability at all times.
Antimicrobial resistance	Establish a National Action Plan for AMR that is aligned with the Global Action Plan as requested by the 68th World Health Assembly Resolution, preferably formulated by a multisectoral committee on AMR with collaboration from public health and animal health authorities.

Antimicrobial resistance	Designate AMR reference laboratories for human health, animal health, food and environment.
Antimicrobial resistance	Establish surveillance of antimicrobial usage and AMR in humans and animals, to generate robust national data.
Zoonotic diseases	Establish formal mechanisms for sharing information on zoonotic diseases and outbreaks between the animal, human and environment / wildlife sectors at national and regional levels.
Zoonotic diseases	Establish proper linkages between public health and animal health laboratories and leverage existing capacities.
Biosafety and biosecurity	Establish a task force with representatives of (at least) the MoHSS, the NIP, the CVL and the environment authority to develop a needs assessment and to prepare an integral biosafety and biosecurity plan using the One Health approach. It must include legislation and regulation gaps.
Biosafety and biosecurity	Develop and implement regulations for vaccination (pre-exposure prophylaxis) for laboratory personnel (Hepatitis B, HIV and other relevant diseases).
Immunization	Strengthen collaboration between animal and human health (under the One Health approach) to prevent and respond to outbreaks. This calls for the need to put in place a mechanism for improved communication and engagement.
Immunization	Improve routine immunization coverage through increased social engagement with mothers and community leaders to increase uptake.
Immunization	Strengthen mechanisms for quality monitoring of both programmes, including data gathering and sharing.
DETECT	
National laboratory system	Strengthen the laboratory management quality system across the country.
Real-time surveillance	The establishment and implementation of event-based surveillance as outlined in the Namibia IDSR guideline (2011) to complement indicator-based surveillance.
Real-time surveillance	The establishment of interoperable, interconnected surveillance systems for both human and animal health, capable of sharing data with different stakeholders for a timely response.
Reporting	Strengthen early reporting to WHO, OIE and FAO, and from community level to national level, through the use of simulations of epidemics and exercises.
Reporting	Conduct post-action reviews to analyse what happened, why it happened, and how it can be done better by all the stakeholders.
Reporting	Capacitate the National IHR Focal Point with the authority of reporting to WHO to ensure early reporting and therefore rapid response.
Reporting	Integrate reporting between ministries by facilitating interfaces among systems already in place, and using common communication channels.
Workforce development	Strongly advocate for continued support for the FELTP to the central government and international organizations.

Workforce development	Develop workforce strategy specific to public health fields in collaboration with the UNAM and the MoHSS to increase the retention of staff, create a career ladder, and move people to the places in the country where they are most needed.
Workforce development	Combine the resources of staff and graduates of the FELTP with those of UNAM to maximize expertise for training, research, and mentoring in public health.
Workforce development	Create positions for epidemiologists and other public health staff in the organigram and salary plans of the government.
Workforce development	Create consensus for the development of a public health institute as an organ of the MoHSS that is intimately related to public health training programmes in the country.
RESPOND	
Emergency response operations	Prepare for emergencies with which the country is not yet familiar, including disease outbreaks, mass casualty events such as plane crashes and chemical or radiologic disasters through simulations.
Linking public health and security authorities	Establish legal agreements (MoUs, acts of parliament) and SOPs for cooperation between law enforcement authorities and public health and animal health authorities
Linking public health and security authorities	Share information between relevant authorities and conduct joint coordinated exercises and simulations.
Risk communication	Build strong working relationships with all relevant sectors.
OTHER IHR RELATED HAZARDS AND POINT OF ENTRY	
Points of entry	Existing air PoEs need to be reviewed to build IHR core capacities, including detection, isolation, and patient transport.
Points of entry	Existing air PoEs need to be reviewed to build IHR core capacities, including detection, isolation, and patient transport.
Radiation emergencies	Strengthen the regulatory capacity and consider networking with other regulatory bodies in the region for the control of the import / export of radiation sources.
Radiation emergencies	Finalize the national radiological emergency preparedness and response plan and conduct drills.

4.3. Costing of activities and summary of cost categorisation by JEE thematic areas

Overall, Namibia will require nearly NAD 576 323 486 (38 421 565 US dollars) over a period of 5 years to implement the NAPHS (costs for 11 thermal scanners not included). The highest cost will be allocated for Detect technical area accounting for about 47% of the total NAPHS budget.

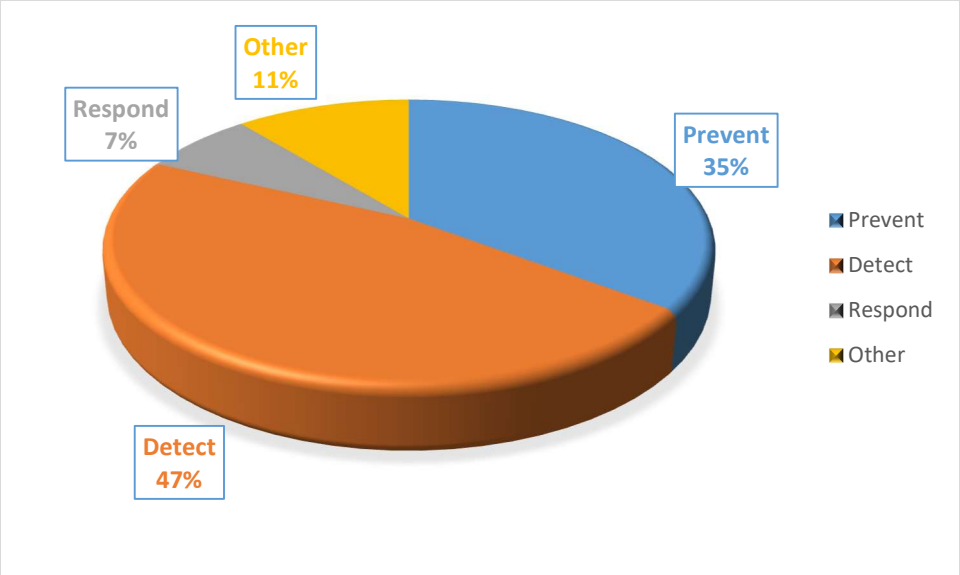


Figure 7: Percentage of NAPHS budget per thematic area

4.4. Cost breakdown by JEE thematic area over years

The government of Namibia through the relevant Ministries and agencies will allocate approximately NAD 144 080 871 (USD 9 million) annually to support implementation of NAPHS. This amount will arise from human resource costs, direct allocation to specific interventions in the priority sectors and other sector related operational costs.

Table 6: NAPHS cost breakdown per thematic areas aver years (NAD)

	2021	2022	2023	2024	2025	TOTAL
Prevent	47998054,32	40823388,3	39728428,3	37057004,3	37460764,3	203067640
Detect	69863479	52262554	49587348	48703440	48687348	269104169
Respond	27345214	6853750	2232490	2232490	2232490	40896434
Other IHR related hazards and PoE	14076073	16927789	10843647	10564087	10843647	63255243
Total	159282820,3	116867481	102391913	98557021,3	99224249,3	576323486

4.5. Cost breakdown by technical area over years

Table7 below shows cost of the NAPHS by thematic and technical area. The 3 top cost drivers are workforce development, Antimicrobial resistance and point of entry.

Table 7: NAPHS cost breakdown by technical area over years

Year of implementation	2021	2022	2023	2024	2025	TOTAL
Prevent						
1. National Legislation, Policy and Financing	1510566	485568	485568	485568	485568	3452838
2. IHR Coordination Communication and Advocacy	174000	174000	174000	174000	174000	870000
3. Anti-Microbial Resistance	14580328	15544308	18624852	16016928	17516928	82283344
4. Zoonotic Disease	9784588,32	9712540,32	9632188,32	9632188,32	9632188,32	48393693,6
5. Food Safety	13894380	4981620	5076920	5964520	4867280	34784720
6. Biosafety and Biosecurity	1760812	6563052	972600	451500	22500	9770464
7. Immunisation	6293380	3362300	4762300	4332300	4762300	23512580
Detect						
8. National Laboratory System	7603839	2533440	2293000	2293000	2293000	17016279
9. Real Time Surveillance	19239528	2215448	2215448	1690448	1315448	26676320
10. Reporting	6808668	7615580	6222256	5863348	6222256	32732108
11. Workforce Development	36211444	39898086	38856644	38856644	38856644	192679462
12. Preparedness	1250280	620880	620880	620880	620880	3733800
Respond						
13. Emergency Response Operations	18748262	628920	628920	628920	628920	21263942
14. Linking Public Health and Security Authorities	456838	279560	279560	279560	279560	1575078
15. Medical Countermeasures and Personnel Deployment	1398386	1572200	172200	172200	172200	3487186
16. Risk Communication	5491448	3752190	530930	530930	530930	10836428

Other IHR related hazards and PoE						
17. Points of Entry (PoE)	12258679	14397447	10037447	10037447	10037447	56768467
18. Chemical Events	1649444	526640	806200	526640	806200	4315124
19. Radiation Emergencies	167950	2003702	0	0	0	2171652

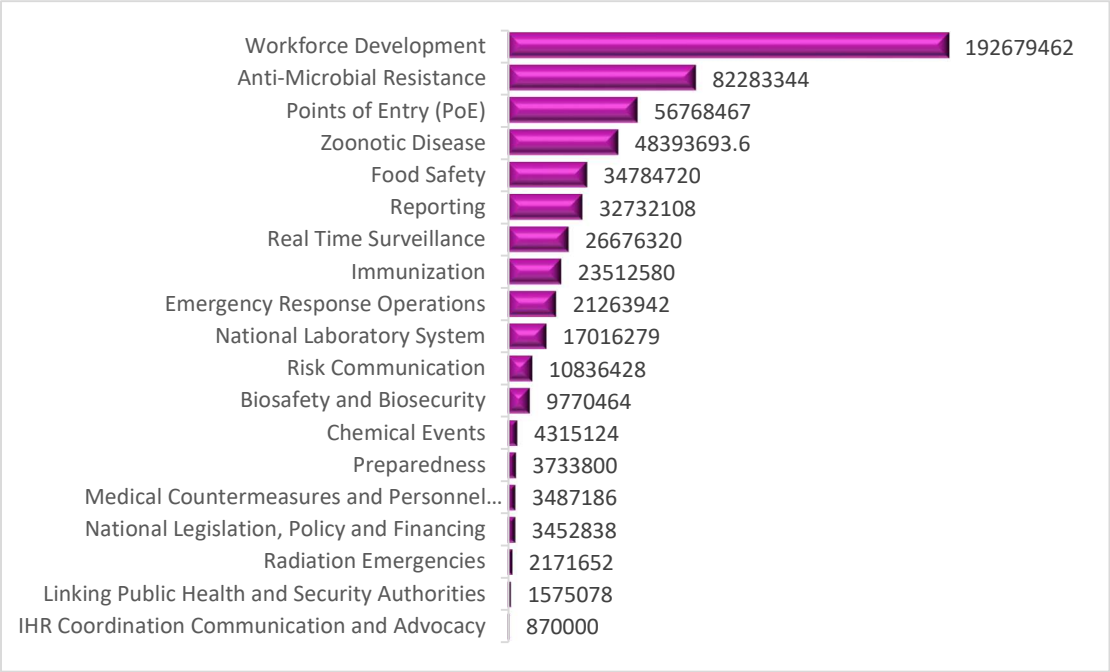


Figure 8:cummulative NAPHS cost per technical area

4.6. Summary of cost analysis

The 5-year cost estimate developed during the planning exercise for implementing the Namibia NAPHS is approximately NAD 576 323 486 (38 421 565 US dollars. The 3 top cost drivers are workforce development, Antimicrobial resistance and Point of Entry (figure 9). The costs of implementation are heavier on the first year of the NAPHS implementation period with the costs almost evenly distributed over the rest of the 4 years. (Figure 10 and figure 11)

Figure: NAPHS 3 top cost drivers

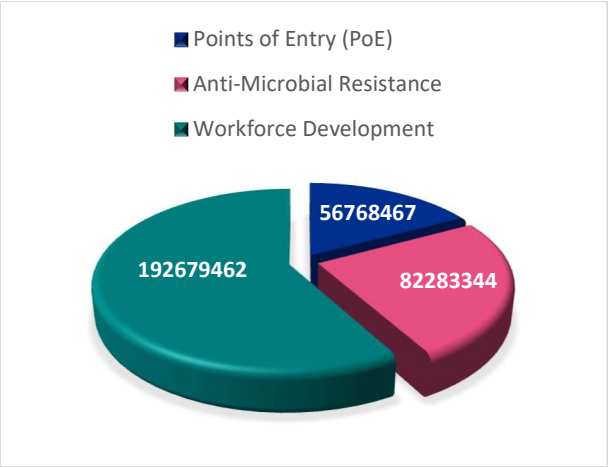


Figure 9: The 3 top cost drivers

Category area	Cost drivers	Total cost
Prevent	Anti-Microbial Resistance	82,283,344
	Zoonotic Disease	48,393,693
	Food Safety	34,784,720
Detect	Workforce Development	192,679,462
	Reporting	32,732,108
	Real Time Surveillance	26,676,320
Respond	Emergency Response Operations	21,263,942
	Risk Communication	10,836,428
	Preparedness	3,733,800
Other IHR related hazards and Point of entry	Points of Entry (PoE)	56,768,467
	Chemical Events	4,315,124
	Radiation Emergencies	21,71,652

Table 8: The top 3 cost drivers per thematic area

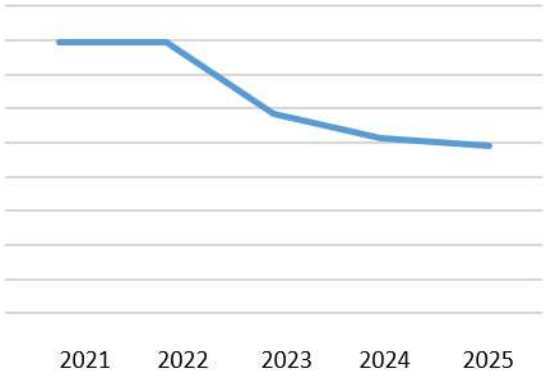


Figure 11: NAPHS cost trend from 2021-2025

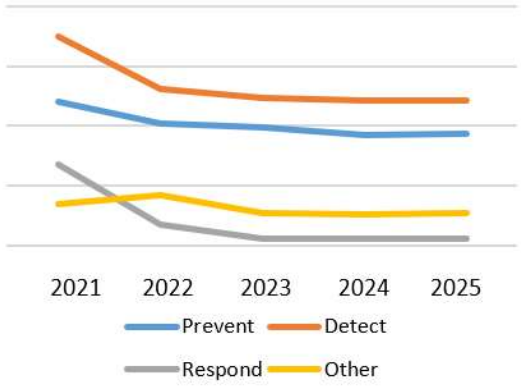


Figure 10:NAPHS Cost trend per thematic area

4.7. Financing of National Action Plan (Domestic, external funding and further donor engagements)

After a resource mapping exercise, partner's contribution in the NAPHS per technical area is presented in figure 12 below. Zoonotic diseases and preparedness are the technical areas receiving most support from partners.

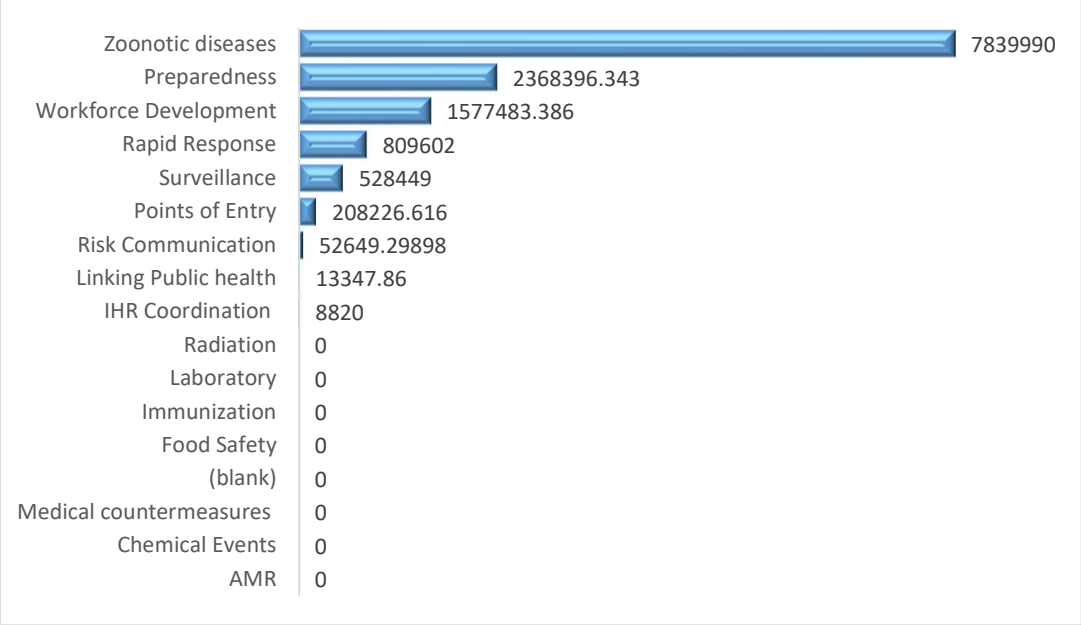


Figure 12 Core capacities and estimated cost by partners

4.8. Risk appraisal, assumptions and management

The success in the implementation of the NAPHS will depend on the successful management of risks. Potential risks identified in Namibia are of a political, financial and operational order. These risks have been classified according to 2 criteria: probability (Likelihood of Occurrence) and impact (Level of Severity). A rating scale was used to describe each type of risk (low, medium, high). The table below summarizes risk appraisal, assumptions and management in the implementation of the NAPHS and proposes strategies for management.

Table 9: Summary of risk appraisal, assumptions and management

Type of risk	Likelihood of Occurrence	Level of Severity	Strategy for management
Poor governance	Medium	High	•Government ownership and buy-in •Continued political support and advocacy •Alignment of domestic legislation to facilitate implementation

Financial constraints	High	High	•Advocate for increased domestic funding to MoHSS, MAWF, through parliament. • Mobilize additional funding from donors and partners • Improve coordination of implementation of donor funded programmes and projects •No change in government allocation of domestic funds for implementation of programmes including NAPHS Ensure financial accountability and transparency in funds management
Insufficient multi-sectoral collaboration and coordination	Low	Medium	• Sustain effective stakeholder engagements. • Sustain a multi-sectoral approach in implementation and M&E for the NAPHS
Human resource	Medium	Low	•Limit the high staff turn over •Ensure staff motivation •Ensure availability of qualified human resource
Rapid changes in technology	High	Low	• Ensure technological watch •Ensure in service training of human resources to remain up to date
Low community engagement	Medium	High	•Sustained community involvement through the relevant strategies
Delays in implementation of activities	High	High	•Develop coordination mechanism for implementation •Conduct M&E of the NAPHS
Unknown (Man-made/natural disaster)	Low	High	•Ensure adequate preparedness and effective response to known event or hazard

4.9. Platform for National Action Plan

4.9.1. Linkage with existing plans

The Namibia NAPHS is aligned with the following plans:

- The Namibia 5th National development plan;
- The Ministry of Health and Social Services strategic plan (2017/2018-2021/2022);
- The Ministry of Agriculture, Water and Forestry Strategic Plan (2017/2018 – 2021/2022);
- National Disaster Risk Management Plan 2011;
- National Disaster Risk Management Policy;
- Harambee Prosperity Plan (2016/17 – 2019/20);
- National Health Emergency Preparedness and Response Plan 2013 – 2017;
- Port Health strategy.

4.9.2. Interplay between relevant sectors

Successful, multi-sectoral collaboration is dependent on political, economic, social factors compliance and commitment from all parties working together. The Government of Namibia will make efforts to collaborate with various stakeholder groups: government sectors, UN agencies, international organizations, partners, civil society, and private sector to jointly achieve the desired purpose of the NAPHS implementation. By engaging multiple sectors, partners can leverage knowledge, expertise, scope, and resources, benefiting from their combined and varied strengths as they work toward the shared goal of securing Namibia health security capacity. The public health issues are complex, and most often, a single health issue may be influenced by interrelated social, environmental, and economic factors that can best be addressed with a holistic, multi-sectoral approach. By leveraging the strengths and varied approaches of partners, effective multi-sectoral coordination will eliminate implementation barriers, facilitate scale-up, and increase the impact that one sector or partner cannot have alone. Coordination across government ministries, for example, is essential for identifying intersections among the sectors and opportunities for collaborative planning.

4.9.3. Other enablers

Political stability: Since Namibia gained independence from South Africa on 21 March 1990, a significant progress towards political stability and economic growth have been made. The country has been on a path of reconciliation, reconstruction, and stabilisation. Namibia is one of Africa s most remarkable success story led by a democratically elected and stable government. This level of political stability provides a conductive environment for the implementation of the NAPHS.

Security stability: Namibia is ranked high as a peaceful nation according to the Global Peace Index. It is one of the eight countries with high level of peace and security on the continent of Africa, essentially in terms of rule of law and degree of internal and external conflict. The country also ranks high relative to other African countries in terms of the quality of governance and the government ability to support human development, sustainable economic opportunity, rule of law and human rights. Such high level of internal stability sets the foundation for strong and sustainable investment in health security.

Political commitment: The Government of Namibia and the development partners are committed to the realization of health sector goals as stated in the constitution and the NDP5. The Ministry of Health and Social Services strategic plan (2017/2018-2021/2022) has served to focus attention, resources, and investments on the most pressing issues facing the health sector. Health remains a priority sector and there is increased and sustained funding from the government and development partners for most programmes in this sector.

Macroeconomic stability and sustainable economic growth: Namibia is ranked as an upper-middle-income developing country with plenty of natural resources, solid infrastructures, a free press and an economy that has grown on average by 4,6 % per annum over 2012-2016 period[22].

[22] 5th Namibian Development Plan

This growth has been primarily driven by large investments in the extraction sector, favourable export prices and high government expenditures. Foreign direct investment is projected to grow gradually as a result of the strategic initiatives proposed by the NDP5, the effects of the 2016 investment conference and adoption of the economic diplomacy policy. Investment in economic infrastructures such as water, energy and transport is expected to support economic growth. This will ensure additional domestic funding for health programme.

Multisectoral and Multidisciplinary collaboration: The Namibian Government has a platform and mechanisms for donors, international organizations, intergovernmental organizations, UN agencies and other development partners to contribute to national development. As outbreaks in Africa have shown, public health security is a complex, costly, and information intense undertaking. This requires strong national and multi-sectoral leadership, infrastructure, cross-border collaboration, capacity to identify problems rapidly and design real-time evidence-based solutions. In addition, well-trained and well-equipped workforces, well-functioning laboratories and service-delivery systems, capacity to sustain interventions, and ability to respond to unexpected events are required. These can only be achieved through comprehensive, multisectoral, collaborative strategies. The National Action Plan for Health Security reflects the solidarity and commitment of all stakeholders to strengthen Namibia's collective effort and capacity to respond to potential public health emergencies of international concern and other public health risks.

Human resource capital: Health workforce is a crucial pillar in a well-functioning resilient health system. The importance of strong human resource system for health was demonstrated during the recent Ebola Virus Disease (EVD) outbreak from 2014 to 2015. The National Human Resource for Health Strategic Plan (2020-2030) provides a clear vision for the health workforce over the next ten years. Its principles, values, goal and objectives are geared towards strengthening the health workforce to provide high-quality, equitable, and accessible health services to all Namibians. It was developed The Ministry has also made headway in developing a comprehensive Community Based Health Care(CBHC)programme to enhance the health workforce's ability to cover the hard-to-reach populations and marginalised communities. The Ministry of Agriculture Water and Forestry has a program that supports training of veterinary doctors. The University of Namibia, under the Faculty of Agriculture and Natural Resources has opened a 3 years Diploma in animal health and a 6 years Bachelor degree of Veterinary Medicine. Other relevant programmes also covered by other institutes such as the NUST include the bachelor degree in agriculture (crop science, animal science, food science), the bachelor in environmental/public health and the Msc epidemiology.

4.9.4. Contribution to Health system strengthening, Universal Health coverage (UHC) and Sustainable Development Goals (SDGs)

Through the substantial investments in the different health systems blocks: Leadership and governance, Service delivery, Human resources for health, Health financing, Medical products and health technologies, Health information systems and research, Health security and emergencies, Community engagement and health promotion, the implementation of the NAPHS will contribute to building a robust, resilient and responsive health system for Namibia. This plan forms the foundation for better health security, preventing deaths, tackling diseases, strengthening the health

system and improving the health and well-being of the population. An effective health care system will contribute to attainment of Universal Health Coverage (UHC) by ensuring that people have access to the health care they need without suffering financial hardship. It also helps to drive better health and development outcomes. This approach is key to ending extreme poverty and increasing equity and shared prosperity. It is also an essential part of the Sustainable Development Goals (SDGs). SDG 1, with the goal to end poverty in all its forms everywhere, is in peril without UHC, as hundreds of millions of people are impoverished by healthcare costs every year and SDG 3 which includes a target to "achieve universal health coverage (UHC), including financial risk protection, access to quality essential health care services, and access to safe, effective, quality, and affordable essential medicines and vaccines for all.

5. DELIVERY OF ACTION PLAN

5.1. Stakeholders analysis

A stakeholder analysis was performed and the matrix below classifies them according to their level of influence and interest in the NAPHS implementation and health security issues in Namibia.

Level of interest is how much a stakeholder(s) care about the outcomes, if they are beneficiaries or will there be negative effects?

Level of influence is the degree to which a stakeholder can make or break the project (such as through funding, legislation, protests).

Stakeholders with **high influence but low interest** need to be satisfied with the implementation of the NAPHS. Their objectives will be considered to ensure they remain strong advocates. The alignment of the NAPHS with other national policies and plans will contribute in satisfying these stakeholders.

Stakeholders with **high influence and high interest** are those closely implicated with the NAPHS implementation. They will be well managed to build strong relationships and ensure that they retain support. They will be involved in decision-making and will be regularly engaged.

Activities of stakeholders with **low influence and low interest** will be monitored from time to time to stay on top of their involvement because their relevance may change over time. They will be kept informed on the NAPHS implementation and their interest will be encouraged.

Stakeholders with **low influence but high interest** will be regularly informed as they have a very high interest in the NAPHS. They will be consulted on their area of interest and their inputs will be used to improve chances of the NAPHS success.

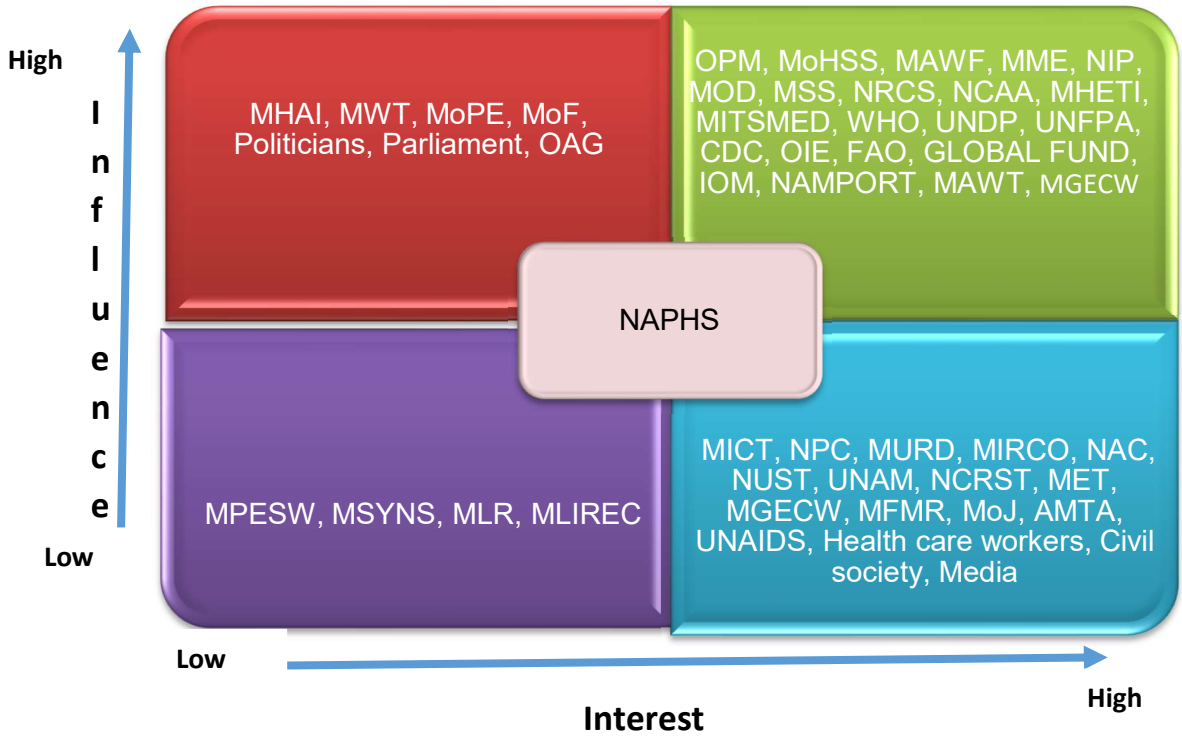


Figure 13: Stakeholders analysis matrix for Namibia NAPHS

5.2. Roles and Responsibilities of Key stakeholders

A diversity of stakeholders will be involved for the duration of the implementation of the NAPHS. Their roles will vary from providing leadership to implementation of activities. Some stakeholders are vital in providing support either technical, financial or community engagement. Multisectoral collaboration is critical for the success of the NAPHS implementation. The roles and responsibilities of the various entities that will be involved in the implementation include the following:

5.2.1. Office of the President

The President of the Republic of Namibia, as the Head of State, is authorized to *declare a* national disaster */state of emergency*. The declaration of state of emergency is a pronouncement to the international community to assist the Government in responding to the unfolding disaster that is deemed beyond the response capacity of government alone.

5.2.2. The parliament

The Parliament of Namibia will be critical to support aspects of the NAPHS related to internal resource mobilization, allocation and legislation. Key responsibilities will include i) review of out

dated laws, ii) enactment of new legislation as required by IHR in the NAPHS and iii) approving the national health budget with considerations for resources and policies needed to meet the aspirations set out in the NAPHS. It is therefore useful for its members to have awareness on NAPHS so as to better defend the health budget, with particular attention to the creation of new budget lines to fund management of public health emergencies.

5.2.3. Office of the Prime Minister

The Office of the Prime Minister (OPM) has the overall responsibility of coordinating disaster risk management and implementing the National Policy on Disaster Risk Management. OPM recommends the state of disaster through the DDRM and activates the National Emergency Operation Center. The Executive Director in the Office of the Prime Minister chairs the sub-committee of national disaster risk management committee on the resource mobilization and capacity building[23]. The OPM shall host the One Health Platform and shall be responsible for coordinating one health related (multisectoral) activities in the NAPHS, mobilize resources for the implementation of the plan at Government level. Through the One Health Platform, the OPM shall perform annual, mid-term and final reviews of the NAPHS with the technical support of the IHR-NFP.

5.2.4. Line ministries

Ministry of Health and Social Services (MoHSS)

The MoHSS as a coordinating ministry of this plan, has the responsibility of ensuring a safe, sustainable, and health-enhancing environment, protected from social, biological, chemical, and physical hazards, and promoting human security before, during and after disasters. As the centrally mandated ministry in the development of health security, the MoHSS shall have overall stewardship and management of the implementation, monitoring and evaluation of the NAPHS. The MoHSS shall take the leadership role in the coordination of key stakeholders and activities for NAPHS purposes. The MoHSS shall also lead strategic planning for the implementation of the of this plan, including regularly undertaking performance reviews of the implementation of the plan. The MoHSS shall mobilize resources for implementation, monitoring and evaluation of the human health component of the NAPHS. Inter-sectoral collaboration is vital for successful implementation of NAPHS. It shall also bear the responsibility of providing guidance and sponsorship for development of policies, regulations and laws necessary for successful NAPHS implementation as well as making requisite investment in human resources, infrastructure, equipment, etc. necessary for successful NAPHS implementation. The MoHSS shall also watch the fulfilment of international obligations and reporting requirements of NAPHS and IHR. The

[23] Disaster Risk Management Act

Executive Director in the MoHSS chairs the sub-committee of national disaster risk management committee on health emergencies[24].

Ministry of Agriculture, Water and Land Reform (MAWLR)

The MAWLR deals with Animal health including zoonotic diseases, food security, toxins, phytosanitory, water and sanitation practices and services. It will co-chair with the MoHSS the NAPHS initiatives that are synergistic with One Health Platform themes. MAWLR will exercise stewardship and management of implementation of the animal health centered objectives in the NAPHS. MAWLR shall mobilize resources for implementation, monitoring and evaluation of the animal health component of the NAPHS. MAWLR will also take responsibility for investments in human resources, infrastructure, equipment, etc. necessary for attainment of animal health centered objectives in the NAPHS. It shall be responsible for tracking fulfilment of international obligations and reporting requirements related to animal health and public health emergency management. The MAWLR also bears the responsibility of ensuring that cross border movement of livestock, animal and animal products as well as plants and plant products is managed in a manner that protects the health security of Namibia.

Ministry of Environment, Forestry and Tourism (MEFT)

The ministry of Tourism shall promote biodiversity conservation in the Namibian environment through the sustainable utilization of natural resources and tourism development for the maximum social and economic benefit of the citizens. It shall also support health facilities and other institutions in proper waste management and ensures the application of biosecurity and biosafety measures in waste management.

Ministry of Finance(MoF)

The Ministry of finance will be responsible for the mobilization of domestic resources for implementation of the NAPHS including auditing and monitoring the efficiency and utilization of resources raised for NAPHS implementation. The MoF will also assess the impact of funding sourced for NAPHS implementation to ensure the objectives are met with a specific target to optimize resources.

Ministry of Urban and Rural Development (MURD)

The MURD Coordinates sub-national government and traditional authorities. It shall engage in facilitating functional community engagements for the implementation of NAPHS activities at villages, towns, chiefdoms, districts and regional level.

[24] Disaster Risk Management Act, 10 of 2012

Ministry of Defence (MoD)

The MoD shall assist with rescue operations, transport (sea, air and land), logistics, (Territorial integrity). It shall support emergency response for disaster level of public health emergencies. It shall also assist in capacity building in various public-sector institutions in emergency preparedness i.e. table top exercises, simulations and drills.

Ministry of Mines and Energy

The Ministry of Mines and Energy shall be responsible for the management of public health emergencies related to radiation, chemicals, surveillance of earthquakes and tremors.

Ministry of Information, Communication and Technology (MICT)

The MICT shall be responsible for information dissemination in routine and during public health emergencies. It shall facilitate and support the use of NTIC for surveillance and management of public health threats. The MITC shall also facilitate access of the MoHSS to media platform for the purpose of risk communication at all levels will facilitate public-private partnerships that will assist the MoHSS in risk communications while supporting the health sector to secure positive publicity on the NAPHS initiatives. Where need arises, the MICT shall assist the MoHSS in rumour surveillance and mitigating mass misinformation through various platforms (e.g. social media).

Ministry of International Relations and Cooperation (MIRCO)

The MIRCO shall help broker agreements to facilitate meaningful cross border collaboration for health security and also support Namibia in regional cooperation for advancement of health security within the sub Region and globally.

Ministry of High Education, training and innovation (MHE)

The ministry of technical and higher education shall update curricula for training of health care workers, to include aspects covered under NAPHS such as disease surveillance, emergency management and risk reduction. It shall also implement a sustainable strategy to increase the workforce of veterinarians in Namibia.

Ministry of Gender Equality and Child Welfare (MGECW)

The Ministry Gender shall support the MoHSS by reinforcing policy on childhood immunization to ensure that children enrolling for school are required by ministerial regulation to be fully immunized. During the implementation of the NAPHS, the ministry of gender will partner with health sector in community disaster risk and vulnerability assessments. It shall also be key in safeguarding the welfare of frontline health workers and surge staff during response to large scale health emergencies, including compensation for loss, injury, disability or death.

5.2.5. Others

Directorate of Disaster Risk management(DDRM)

As the national authority mandated for disaster management, the DDRM oversees development of disaster risk reduction and disaster management in all ministries and sectors of the economy as set out in the Hyogo protocol and the Sendai framework. It shall work with the MoHSS to establish clear communication and coordination lines with the Public Health National Emergency Operations Centre and the National Emergency Operations Centre.

National Planning Commission (NPC)

The national planning commission shall assist in planning for national development and Coordinates External Developmental Funding for the implementation of the NAPHS.

Ministry of Home Affairs, Immigration, Safety and Security (MHAISS)

The ministry of Home affairs, Immigration, Safety and Security shall be responsible for the control of passenger's travel history during Public Health Emergency of International Concern(PHEIC) at point of entry. It shall also assist the MoHSS in contract tracing during PHEIC.The Ministry shall ensures protection of civilians, protection of evidence, crowd control, burials during public health emergencies.

Ministry of Works and Transport

As the ultimate regulatory authority for air, land and sea transport the ministry of transport will support the MoHSS and stakeholders in attaining the objectives set out in the NAPHS especially in regard to food importation, transportation of goods/chemicals, movements of humans and animals during critical times such as an outbreak. It shall also facilitate IHR public health measures implementation in air, sea and road transport. The ministry of transport shall the establishment of frontal health post at the designated Point of Entry. The Namibia civil aviation authority, the Namibia maritime administration and the Namibia Ports Authority have roles to play in the implementation of the NAPHS.

WHO, OIE, FAO, other UN Agencies, CDC, National and International Agencies

These non-governmental organizations have capacity to trigger development in various areas that they partner with the government. The international agencies will be on standby to provide

technical support for development, implementation, monitoring and evaluation of the NAPHS. They will also support the country's efforts to raise funds for the NAPHS.

Academic Institutions

Groups of reflexion and academic institutions are important in accelerating the growth of new knowledge and in leading scientific and operational research. In the implementation of the NAPHS, some surveys will need to be carried out either as baseline studies, mid-term evaluations or for end of implementation documentations. Academic institutions can be very useful in designing and conducting evaluations due to their expertise and neutrality. They will also be a source of technical expertise to guide implementation of NAPHS.

Civil Society

Civil society organizations play an important role in enhancing transparency and good governance by contributing to increased public debate on issues surrounding the formulation and implementation of public sector plans as well as in supporting greater transparency. There is a dynamic civil society in Namibia and their critique will be considered as we expend resources in NAPHS implementation.

The Media

The media plays a role in creating and shaping of public opinion. It has the duty to inform, to educate and to entertain the community. The media in Namibia should watch to protect public interest against malpractice, create public awareness and give platforms to citizens to give feedback on how NAPHS implementation is affecting their lives. In the implementation of the NAPHS, the media will be key to highlighting the various initiatives to secure the health of citizens. The media is also directly involved in the implementation of several activities under risk communications.

5.3. Coordination mechanisms and framework for delivery of action plan

The Namibian Government through the MoHSS will provide overall stewardship, oversight and coordination of the NAPHS. Partners and key stakeholders will support implementation of the plan. The IHR-NFP in the Health Information and Research Directorate supported by Primary Health Care Directorate serves as the reference point for the implementation of the NAPHS.

5.3.1. At the National Level

The Multi-Agency Committee (The One Health Platform)

The Multi-Agency Committee (The One Health Platform) is the highest decision-making body responsible for policy formulation and coordination oversight and decision-making. The Committee will present to cabinet and the Presidency IHR and NAPHS related concerns including emergencies and public health threats and secure high-level strategic decisions when necessary. The One Health Platform will facilitate the collaboration of multi-sector entities in addressing

public health issues that cannot be implemented by a single sector, and/or delivery of service which requires joint action. The One Health Platform exercises its functions in routine (before occurrence of public health events), during public health events and after public health events. Before the occurrence of public health events, the One Health Platform will support multi-sectoral preparedness efforts to strengthen IHR core capacities for prevention, detection and response. During public health events, the focus its efforts to promptly interrupt any outbreak using the multi-sectoral capabilities and expertise, and after public health events, the focus will be to ensure smooth recovery and documentation of lessons learned.

Members of the Multi Agency committee (The One Health Platform) are as follow:

- Office of the Prime Minister;
- Line Ministries;
- Directorate of Disaster Risk Management;
- Non-Governmental Organizations;
- Namibia Red Cross Society;
- World Health organisation (WHO);
- Centre for Disease Control and Prevention (CDC);
- World Health Organization for Animal Health (OIE);
- Food and Agriculture Organization (FAO);
- Other UN agencies;
- The IHR-NFP is the secretariat of the One Health Platform.

The International Health Regulation National Focal Point (IHR-NFP)

The Namibia International Health Regulations National Focal Point (IHR NFP) was established in 2016 within the MoHSS. However, according to 5-year plan of action for implementation of the IHR (2005) in Namibia (2012-2016)[25], NFP existed as a person rather than a national centre. Hence, it was not fully operational. According to the International Health Regulations (IHR (2005), National IHR Focal Point is defined as ***"the national centre, designated by each State Party which shall be accessible at all times for communications with WHO IHR Contact Points under these Regulations"***. Therefore, for NFP to be fully operational, IHR NFP should exist as a national centre with appointees from relevant ministries. IHR NFP will led day-to-day IHR-relevant event assessment, reporting and coordination efforts on public health events, including emerging/re-emerging diseases, such as Viral haemorrhagic fever outbreaks and other communicable disease outbreaks, contaminated medical products, and vaccine preventable diseases, among others. The work of the IHR NFP will contribute to global health security policy development and recognition that communicating the evidence-based possibility of a major public health event is critical to protecting Namibia and global populations from future public health threats.

In the delivery of the NAPHS, the IHR-NFP is responsible of the:

- Development of a national strategic plan that take into accounts all recommendations of the JEE, all IHR core capacities, and/or any health security events every 4-5 years;
- Review and update the plan annually with relevant sectors and other implementing partners;
- Engage the parliament with the legal office in the MoHSS and relevant stakeholders on the legislation, policies and administrative arrangements to enable compliance with the IHR (2005) with the guidance of relevant partners;
- Mobilization of resources including domestic financing for the implementation of the NAPHS and monitor the use of the resources for any health security event with the IHR (2005) with the guidance of MoF and relevant partners.

NFP Structure and functions[26]

IHR NFP is a national centre with appointees from relevant ministries with technical and support staff. The IHR NFP is responsible for the day-to-day operations and management of procedures for communication and coordination. IHR NFP technical staff operate under a 24/7/365 duty schedule to ensure continual monitoring of and timely response to domestic and international public health events. The IHR NFP oversees all core IHR NFP activities, such as:

- Notifying potential public health emergency of international concern (PHEIC) to the WHO;
- Receiving, triaging and directing IHR-related communications to ministries, departments and agencies and other internal partners and stakeholders;

[25] 5-year plan of action for implementation of the IHR (2005) in Namibia (2012-2016)
[26] WHO guidelines for the establisment of International Health Regulation National Focal Points.

- Preparing and disseminating official IHR-related messages to relevant domestic and international stakeholders;
- Coordinating and facilitating communications and information sharing between Namibia ministries, the WHO and other countries' NFPs in order to facilitate efficient public health communications and information sharing.

IHR NFP specific responsibilities include:

- Overseeing and coordinating inter-agency assessment of events that may constitute potential PHEICs;
- Collaborating with relevant technical agencies to perform public health risk assessment using Annex 2 of the IHR;
- Identifying and resolving government policy issues related to international public health reporting;
- Overseeing domestic IHR obligations and coordinating IHR-relevant policies, positions, and process implementation efforts;
- Coordinating the monitoring and evaluation of IHR core capacities, and annually reporting on the status of IHR core capacities to WHO;
- Advising interagency leadership and technical staff on IHR-relevant policy;
- Coordinating IHR-relevant efforts with international partners, organizations, and the Namibian government;
- Leading efforts on bilateral policy exchanges with foreign NFPs.

IHR NFP should have a communication capability for 24 hours a day/7 days a week/365 days a year for monitoring, situational awareness and communication requirements of the IHR NFP. This will enable the IHR-NFP to receive and transmit communications as needed. The IHR-NFP plays a vital role in receiving and routing communications properly during a public health emergency, as well as maintaining general, public health situational awareness.

5.3.2. Sub-national level

Until the coordination structures and mechanisms established at the national level are fully operational, the District Health Management Teams (DHMT) will be responsible of the implementation of the NAPHS at the operational level. In fact, the DHMT is in charge of the implementation of various national health policies and strategies at the operational level. The implementation of NAPHS at the sub-national level will leverage on the existing coordinating structures at the district level including: The Public Health Emergency Management Committee (PHEMC) which is under the leadership of the District Management Officer (DMO); the District Disaster Management Committee which requires strong participation of the DMO as a member. The DMO in collaboration with the Sub Divisional Officer will oversee, and be responsible for updating relevant ministries and other stakeholders through existing fora. The Sub Divisional Officer will ensure strong collaboration, effective information sharing and coordination with relevant ministries and agencies in the districts. In addition, the district structures will share information regularly and report on the implementation of NAPHS with

national structures. The MoHSS may establish one or more sub-committees as may be necessary.

5.3.3. Alignment of internal stakeholders

The internal partners and stakeholders comprises all implementing partners, academic institutions, civil society organizations, community stakeholders, etc. The role of internal partners and stakeholders is to:

- Engage in the process of developing, supporting, and implementing the NAPHS;
- Jointly participate in the monitoring and evaluation of the NAPHS under the guidance of IHR NFP;
- Receive and shares IHR-related information and directing communications from IHR NFP;
- Support the resource mobilization process, utilization and accountability in line with other relevant documents.

5.3.4. Alignment of external stakeholders

The external stakeholders are donor partners, bilateral agencies, UN agencies, international NGOs and others. The role of external partners in health security is to:

- Support the countries as peer reviewers in assessing the country capacity during the Joint External Evaluation;
- Engage in the process of developing, supporting, and implementing the NAPHS;
- Support the resource mobilization process on the behalf the government to support health security related activities;
- Liaise with IHR NFP in monitoring and evaluation of the NAPHS;
- Receive and shares IHR-related information and communications from IHR NFP.

5.3.5. WHO-Strategic Partnership Portal-SPP

In 2015, Member States, partners and donors mandated WHO to establish a Strategic Partnership Portal (SPP) to monitor the health security capacity of countries by helping them identify needs, gaps and priorities in national, provincial and local health security; by mapping and sharing information on global health security investment and resources; and by creating a platform for collaborating on global health security. In 2018, the SPP expanded from a one-stop information platform to a mechanism for collaboration and partnership and became the Strategic Partnership for Health Security (SPH). This platform will also serve as partnership for Namibia NAPHS and after the launch, the plan will be published on the SPH.

5.4. Monitoring and evaluation of the plan

Upon the finalization of the costed NAPHS, strategic actions will be collected to create a checklist of common health security strengthening interventions. The logical framework (matrix) for the implementation of the plan which includes a SMART Indicator Checklist tailored to the NAPHS was developed. In addition to it, a prediction of the impact of NAPHS

on the selected health and economic parameters will be also provided by WHO, to predetermine the effectiveness of the plan and make required changes.

The model will be developed prior to the implementation of NAPHS and will show virtually the impact of NAPHS on global health security before it is implemented itself.

WHO technical team is determined to develop virtual models to the countries to know exactly what will be the impact of the NAPHS on their health system and economical gains, if development of NAPHS is opted for. This will not only increase the chance of success in the plan but also the predetermined modelling will help attracting donors and partners. Supervision and monitoring are essential to ensure that the plan developed is effectively implemented. Therefore, the plan includes supervision and monitoring of prevention, preparedness, response and recovery at all levels. Besides, annual reviews of the NAPHS will be done by the coordination committee to tract level of implementations of activities and development of Namibia capacities to prevent, detect and respond to public health emergencies.

5.4.1. Strategies for NAPHS monitoring and evaluation

Periodic supervision

Periodic supervision will be done to ensure the activities are implemented according to the agreed targets. These activities will be integrated in to the routine quarterly supervision schedules within respective sectors. The supervision will be carried out at all levels; starting from the National level i.e. Ministry supervising staff at regional levels including staff at Local Government authorities; and Local Government Authorities staff supervising those working beneath them.

Monitoring and evaluation of the surveillance systems in human and animal health

This plan, meant to adopt measured behaviours, policies and/or practices that minimize the transmission of zoonotic diseases from animals into human populations. Measure should be put in place to ensure the One Health approach that will bring together relevant stakeholders to tackle zoonotic diseases is effective. Evaluate formal mechanisms for sharing reports on zoonotic diseases and outbreaks between the animal, human and environment / wildlife sectors at national and regional levels.

5.4.2. Techniques and Tools used for monitoring and evaluation

Intra-Action and After Action Reviews

The intra-action and after action reviews (IAR &AAR) help to review actions taken to respond to an emergency or outbreak. It provides an opportunity to identify what worked well, challenges, lessons learned and best practices. Namibia will conduct IAR and AAR during and afterresponse to any public health event in the country.

Annual reporting using the SPAR Tool

Namibia will continue to report annually on the development of the IHR (2005) core capacities in conformity with its obligation to the World Health Assembly (WHA) on the implementation of IHR (2005).

Simulation exercises

National or regional simulation exercises / drills will be organized and implemented in order to test the functionality and to validate the functional capacities of the IHR (2005), to identify gaps, raise awareness and improve societal and governmental preparation for public health emergencies. These drills will be related to the types of hazard that are prevalent in the country. The findings from the simulation exercises can provide an indication on the level of capacities across the nineteen technical areas.

Joint External Evaluations (JEE)

JEE is an important component of the post 2015 IHR supervision monitoring and evaluation framework because they provide an objective basis for the development of national action plans for health security. They involve an Inclusive multi-stakeholder approach to: accelerate and coordinate objective country assessment processes; they facilitate engagement between countries, international organizations, donors, and technical experts involved in the assessment process; promote transparency in exchanging information on the results of assessments, in particular to donors interested in funding the development. The JEE conducted in 2016 highlighted strengths, weaknesses and recommendations that helped in the development of the NAPHS. A follow up Joint External Evaluations (JEE) will be conducted in 2022 to measure country specific status and progress in achieving the targets on the 19 technical areas as part of the end evaluation of the NAPHS.

Annual Review of NAPHS

Annual reviews of the plan will be conducted to show progress, identify challenges and provide recommendations to guide implementation of the NAPHS in the remaining implementation period. The annual review will be led locally by the MoHSS through the IHR-NFP with support of partners.

Regular reports

Information sharing (report) between sectors will be strengthened and formalized; this will enable and strengthen monitoring.

Internal Evaluation

Evaluation of the NAPHS will be done at the end of the first year of implementation, midway and at the end of the period. Evaluation should be done by a team comprised of Multi-Agency Committee and will take the form of selected site visits across the country. To ensure

transparency and impartiality the evaluation team will include internal and external stakeholders. The outcome of the evaluation will be used to revise the NAPHS.

Other Assessments

Other assessments in human and animal health as well other relevant agencies will also be used to assess implementation of the NAPHS. This include: (i)Annual health sector reviews, (ii)Performance for veterinary services, (iii) Environmental assessments.

ANNEXES

Annexe 1: Matrix for detailed roles and responsibilities

Stakeholders	President	Parliament	OPM	DDRM	MoHSS	MAWF	IHR-NFP	Mo Foreign affairs	Mo Finance	MURD	NRPA	Min communication	Other Gov Ministries	WHO	FAO	CDC	UNDP	Other NGO and Partners
Role	**Government**													**Development partners**				
High level coordination of Ministries	■																	
Declaration of public disaster	■																	
Declaration of public health emergency (Outbreaks)					■													
Managing national disasters				■														
Legislation (enactment of laws)		■																
Enforcing laws and health requirements					■	■		■		■	■	■	■					
Overall NAPHS implementation management					■													
Implementation co-management						■												
Inter-sectoral coordination			■		■													
Collaboration in the NAPHS implementation											■	■	■					
Attend coordination and review meeting	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Overall NAPHS Monitoring and Evaluation					■		■											
Implementation of activities M&E				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Reporting of progress of implementation				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Membership to IHR NFP				■	■	■	■	■	■	■	■	■	■					
IHR NFP coordination & communication							■											
Resource mobilization	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Financial resource allocation									■					■	■	■	■	■
Accountability and audit management									■					■	■	■	■	■
Facilitating Community engagement										■								

Stakeholders	President	Parliament	OPM	DDRM	MoHSS	MAWF	IHR-NFP	Mo Foreign affairs	Mo Finance	MURD	NRPA	Min communication	Other Gov Ministries	WHO	FAO	CDC	UNDP	Other NGO and Partners
Public health risk communication																		
Public health emergency communication																		
Facilitating bi and multilateral collaboration																		
Technical support for the development of policies/guideline																		
Logistical support during emergencies																		

Annexe 2: Terms of Reference of National Multi-Agency Coordination Committee (The One Health Platform)

Purpose

The purpose of the multi-agency Committee (One Health Platform) is to productively facilitate the collaboration of multi-sector entities in addressing the public health issues that cannot be solved by a single sector. The One Health Platform oversees, and when necessary coordinate development and implementation of NAPHS in all sectors to guarantee a systematic and comprehensive approach.

Scope

The One Health Platform addresses all aspects of the NAPHS framework, such as inception, development and implementation related activities in the country.

Roles and responsibilities

The One Health Platform The health platform exercises its functions before, during and after the occurrence of public health events and emergencies as follows:

1. **Before public health events and emergencies,** the One Health Platform:
   - Coordinates multi-sector One Health activities by promoting institutional development to include coordinating resource mobilization for preparedness, risk and vulnerability reduction among Government and other implementing partners;
   - Conducts joint evaluation / assessments within major line ministries and agencies;
   - Institutionalizes the One Health approach to address any public health event and/or pandemic that poses health threats;
   - Ensures that appropriate measures are taken for the prevention of events, or the mitigation of their effects, and for capacity building for effective response to events;
   - Conducts mapping of existing sources of funding for OH activities;
   - Advocates for the multi-sector approach to: Problem solving and planning, reviewing, monitoring and evaluating Early Warning Reports in accordance with identified risks and vulnerabilities;
   - Develops preparedness/contingency plans for the country, and coordination of risk and vulnerability assessment/analysis and mapping of the hazards;
   - Facilitates capacity building for multi-sector collaboration and resources in achieving information and knowledge management including: Facilitating training, research, simulations, education, public communication and awareness campaigns on event risk management;
   - Maintains inventory of national capacity building, assets and resources.

2. **During public health events and emergencies,** the One Health Platform:
   - Fosters collaboration among stakeholders and trigger response mechanism through the activation of the Incident Management System (Action Plan);

- Facilitates joint rapid event assessment and its impact within 24 hours and documents impacts, produces situation reports, recommend necessary actions, and communicate information to all stakeholders;
- Reactivates and/or establish various pillars of the Incident Management System for effective coordination and response led by the responsible sector to be managed by experienced persons with clear roles and responsibilities;
- Notifies and/or liaises with: Development partners, national and international organizations, private sector, UN agencies, donor community, other non-governmental organizations and community based organizations, and local authority/leadership on possibility of partner support for assessment and coordination;
- Notify and initiate cooperation with event management authorities in neighboring countries if the event is linked to cross-border effects;
- The incident management system will hold meetings, through the platform, to discuss recommended necessary interventions from the technical committees and/or technical working groups;
- Ensures timely and adequate response to the affected communities.

3. **After public health events and emergencies,** the One Health Platform:
   - Evaluates the event and its operations;
   - Generates post event reports within a quarter after official declaration of the end of the event;
   - Secures all the government and other properties/assets used in the event;
   - Carries out a detailed needs and risk assessments for: Rehabilitation, recovery and reconstruction;
   - Develops activity plans linked to human health, animal / wildlife health, and the environment;
   - Initiates and coordinates rehabilitation, recovery and reconstruction programmes for implementation;
   - Conducts a detailed training, research, education and public awareness campaign on risk reduction linked to human health, animal / wildlife health, environmental as identified by post needs assessment gap identified;
   - Takes necessary steps to ensure that recommended follow-up actions are undertaken within short-term, medium-term, and long-term interventions for risk reduction.

Technical working groups

Purpose

The One Health Platform establish technical working groups mandated with specific tasks, such as providing technical inputs in different one health related programmes (linked to the JEE technical areas), conducting situation analyses or drafting the NAPHS.

Scope, roles and responsibilities

The One Health Platform shall establish the terms of reference for the technical working group that including details on the scope, roles and responsibilities. These will be focused on areas identified from situation analysis based on various assessments.

- The technical working groups will be national groups and shall interact with country representatives of the required sectors, as determined by the scope of work;
- The technical working groups are mandated by the One Health Platform who defines its the terms of references;
- The technical working groups should regularly report and communicate with the One Health Platform;
- Activities of the technical working groups would include: contributing to country situation analyses, development of activities and monitoring and evaluation indicators, and prioritization", which are required for the development and implementation of NAPHS.

Membership

Depending on the technical areas/capacities, and the purpose, scope and tasks of the technical working group, membership will include people from any of the relevant technical specialties.

Annexe 3: Indicators, milestones and targets

Technical Area	Indicator	Data Source	Baseline	Implementation period				
				2021	2022	2023	2024	2025
National Legislation, policy and Financing	National Public law updated and approved	MoHSS	0	Draft available	Draft finalized			Public health law enforced
	Availability of national budget line for NAHPS	MoHSS	0	5%	7%	10%	12%	15%
IHR Coordination, Communication and Advocacy	Multi-sectoral (One health) coordination mechanism established at national level	MoHSS MAWF	0	1	1	1	1	1
	Number of Ministries/ Institutions with IHR focal points	MoHSS	0	1	2	3	4	5
	Number of IHR review meetings	MoHSS	0	0	Mid-term evaluation	None	None	End Term evaluative
Antimicrobial Resistance	AMR plan available	MoHSS	Plan available	-	-	-	-	-
	Number of health facilities conducting HCAI and prevention control	MoHSS MAWF	TBD	25%	50%	75%	100%	100%
	Number of labs in human and animal health designated for AMR detection and reporting	MoHSS MAWF	0	1	2	3	4	5
Zoonotic Diseases	Timeliness and completeness of reporting to OIE	MAWF	TBD	50%	75%	80%	100%	100%
	Availability of functional zoonotic disease surveillance in human and animal health	MAWF	0	In place	In place	In place	In place	In place and fully functional
	Proportion of zoonotic disease outbreaks that are responded to within 48hrs	MAWF	TBD	25%	50%	75%	85%	100%
Food Safety	Food borne disease surveillance system established	MoHSS	0	25%functional	50% functional	75% functional	85% functional	100% functional
	Availability of food safety law	MoHSS	0	Yes	Yes	Yes	Yes	Yes
	Number of functional food safety laboratories	MoHSS	0	2	2	2	2	2

Technical Area	Indicator	Data Source	Baseline	Implementation period				
				2021	2022	2023	2024	2025
Biosafety and Biosecurity	Availability of legislation on biosafety and biosecurity	MoHSS	0	Yes	Yes	Yes	Yes	Yes
	Availability of biobank	MoHSS	0	Yes	Yes	Yes	Yes	Yes
	Number of personnel trained on biosafety and biosecurity	MoHSS	0	10	25	50	75	100
Immunization	Proportion of children fully immunized through the urban immunization strategy	MoHSS/ EPI reports	90%	92%	94%	96%	98%	100%
	Immunization coverage in high risk communities with Vaccine Preventable Diseases outbreaks	MoHSS/ EPI reports	80%	80%	80.5%	80.5%	80.1%	81%
National Laboratory System	Number of regional labs with diagnostic capacity for IDSR priority diseases	MoHSS	0	1	2	3	4	5
	Number of health personnel trained on specific diagnostics	MoHSS	TBD	100	150	200	250	300
	Proportion of specimens received at National Reference Laboratory on time and in good condition	MoHSS	75%	85%	95%	100%	100%	100%
	Lab policy, strategic plan and guidelines available	MoHSS	0	Draft	Yes	Yes	Yes	Yes
Real Time Surveillance	Proportion of health facilities with 2 staff trained on IDSR	MoHSS	25%	50%	75%	100%	100%	100%
	Proportion of health facilities submitting complete surveillance reports to the national level on time	MoHSS/ Surveillance database	95%	100%	100%	100%	100%	100%
	Proportion of health districts with 5 volunteers trained on EBS	MoHSS/ Surveillance reports	0	25%	50%	75%	100%	100%
	Number of sentinel sites for influenza surveillance	MoHSS	0	2	3	4	5	6
Reporting	Number of NFPs trained on IHR/OIE reporting	MoHSS	0	2	4	5	5	5
	Proportion of potentially PHEIC reported on time	MoHSS	0	100%	100%	100%	100%	100%
	Availability of guidelines for IHR NFP and IOE Delegates	MoHSS	0	In place	In place	In place	In place	In place

Technical Area	Indicator	Data Source	Baseline	Implementation period				
				2021	2022	2023	2024	2025
Workforce Development	Number of persons trained in FETP and FETPV (human and animal health)	MoHSS MAWF	29	7	7	7	7	7
	Availability of health workforce development strategy	MoHSS MAWF	In place	Yes	Yes	Yes	Yes	Yes
Preparedness	Number of counties that conducted all hazard risk assessment and mapping	MoHSS	MoHSS	Done (Draf)	1	1	1	1
	Availability of national multi-hazard plan	MoHSS DDRM	Yes	Updat e	Yes	Yes	Yes	Yes
	Availability of health facility isolation capacity action plan	MoHSS	0	Yes	Yes	Yes	Yes	Yes
	Number of trained multi-disciplinary rapid Response Teams (RRTs)	MoHSS MAWF	0	5	10	15	20	25
Emergency Response Operations	Availability of updated Public Health Emergency Operations Plan (PHEOP) and EOC Standard Operations Procedures (SOP)	MoHSS	0	Yes	Yes	Yes	Yes	Yes
	Functionality of PHEOCs	MoHSS	1	1	1	1	1	1
Linking Public Health with Security Authorities	Availability of MOU and SOPs for collaboration between public health and the security authorities	MoHSS MOD MOJ	0	Yes	Yes	Yes	Yes	Yes
Medical Countermeasure	Availability of plan for sending and receiving medical countermeasures	MoHSS	0	0	Yes	Yes	Yes	Yes
Risk Communication	Availability of risk communication guidelines	MoHSS	NO	Draft	Yes	Yes	Yes	Yes
	Availability of media communication policy and strategic plan	MoHSS	NO	Draft	Yes	Yes	Yes	Yes
	Availability of epidemic prone communities' map	MoHSS	0	1	1	1	1	1
Points of Entry	Proportion of main designated PoEs adequately equipped	MoHSS/ Port Health	0%	25%	50%	60%	70%	80%

Technical Area	Indicator	Data Source	Baseline	Implementation period				
				2021	2022	2023	2024	2025
	Proportion of PoEs conducting routine screening for travellers	MoHSS/ Port Health	0%	10%	25%	50%	60%	75%
	Availability of contingency plans and SOPs at designated PoEs	MoHSS	0	Draft	Yes	Yes	Yes	Yes
Chemical Events	Availability of regulation on chemical events	MET	No	Yes	Yes	Yes	Yes	Yes
	Availability of guidelines for management of chemical events	MET	No	Yes	Yes	Yes	Yes	Yes
Radiation Emergencies	Availability of Radiological and Nuclear hazards response plan	NRPA	No	Yes	Yes	Yes	Yes	Yes
	Number of persons trained in the response to radio-nuclear events	NRPA	25	50	75	100	120	150

Annexe 4: Implementation plan and estimated or projected annual action plan matrix

PREVENT

1. National Legislation, Policy and Financing

					Years of implementation						Monitoring and evaluation			
Key activities	**Lead Agency**	**Potential partners**	**Related existing plan/frame work/programme or ongoing activities**	**Unit Cost**	**2021**	**2022**	**2023**	**2024**	**2025**	**Total cost**	**Output/ Process indicator**	**Outcome indicator**	**Frequency of measure (monthly, quarterly, six monthly, annually)**	**Source of verification**
Objective	**Harmonizing all relevant Acts to support full implementation of International Health Regulations by December 2025**													
Desktop analysis of all Acts, regulations and policies to highlighting inconsistencies by 2021.														
Hire a national consultant with a legal background for 25 working days	MoHSS HIS/ Legal office/ AGs	WHO, UNDP	Existing Acts, Regulations and Policies	147300	1					147300	Consultant report	By December 2025all relevant Acts harmonized and in alignment with IHR	Monthly	Signed agreement
Conduct a 3 days workshop with a working group to assess legislative documents	MoHSS HIS/ Legal office/ AGs	WHO, UNDP	Existing Acts, Regulations and Policies	15390	1					15390	Draft report of desktop analysis of Acts	By December 2025 all relevant Acts harmonized and in alignment with IHR	Monthly	Workshop report and attendance registers

Conduct a 1 day meeting for the validation of report of working group	MoHSS HIS/ Legal office/ AGs	WHO, UNDP	Existing Acts, Regulations and Policies	7554	1					7554	Final desktop analysis of Acts report	By December 2025 all relevant Acts harmonized and in alignment with IHR	Monthly	Meeting report and attendance registers
Organize a press conference to publish in a press release the results of the harmonized legislation	MoHSS HIS/ Legal office/ AGs			118254	1					118254	Press conference on report	By December 2025 all relevant Acts harmonized and in alignment with IHR	Monthly	Articles published in news paper
Implementation of the harmonizing of acts, regulations, policies to alleviate all contradictions and perceived areas of concern end of 2025.														
Recruit 5 national consultants for 25 days to develop short to medium term integrated SOPs, harmonize the acts and regulations, policies	AG, LARC	UNDP WHO	Existing Acts, Regulations and Policies	736500		1				736500	Draft recommendation reports on SOPs and regulation to be amended	By December 2025 all relevant Acts harmonized and in alignment with IHR	Monthly	Consultants report
Conduct 1 public meeting to present amended Acts, regulations and policies for long term harmonization	AG, LARC	UNDP	Existing Acts, Regulations and Policies	709 524			1			709 524	Amended Acts/ regulations / SOPs	By December 2025 all relevant Acts harmonized and in alignment with IHR	Monthly	Meeting report and attendance registers
Establish mechanism for multisectoral and multi stakeholder collaboration for the implementation of IHR by 2024.														
Develop MOU for IHR Focal Group to coordinate all aspects of the NAHPS for Health Security in Namibia	MOHSS-IHR focal group		National Plan for Disaster Risk Management	No cost			1			No cost	MOUs developed	By December 2025 all relevant Acts harmonized and in	Yearly	Signed MOUs

												alignment with IHR		
Develop TORs for the IHR Focal Group to coordinate all aspects of the NAHPS for Health Security in Namibia	MOHSS-IHR focal group		National Plan for Disaster Risk Management, National Action plan for AMR	No cost			1			No cost	TORs developed	By December 2025 all relevant Acts harmonized and in alignment with IHR	six monthly	Approved TORs
Develop SOPs within each of the relevant ministries	MOHSS-IHR focal group		National Plan for Disaster Risk Management	No cost			1			No cost	SOPs developed	By December 2025 all relevant Acts harmonized and in alignment with IHR	six monthly	Approved SOPs
Conduct annual IHR focal group review meetings	MOHSS-IHR focal group	FAO WHO UNDP UNICEF PEPFAR	National Plan for Disaster Risk Management, National Action plan for AMR	249060	1	1	1	1	1	1 245 300	M&E Reports	By December 2025 all relevant Acts harmonized and in alignment with IHR	Annually	Meeting report, attendance sheets

2. IHR Coordination, Communication and Advocacy

					Year of implementation						Monitoring and Evaluation			
Key activities	Lead Agency	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually)	Source of verification
Objective:	**To establish a functional coordination mechanism that integrates all relevant sectors in the implementation of IHR by December 2025**													
Strengthening coordination capacity of the IHR National Focal Point including the table top simulations by 2025.														
Conduct a meeting to develop a communication and advocacy strategy for IHR	MoHSS	FAO WHO UNDP UNICEF PEPFAR	National Plan for Disaster Risk Management , National Action plan for AMR	No cost	1					No cost	Communication strategy	By December 2021, a functional inter-ministerial coordination established	Monthly	Report, attendance sheet
Conduct a workshop to orient IHR focal point members on their roles	MOHSS HRD	FAO WHO UNDP UNICEF PEPFAR	National Plan for Disaster Risk Management , National Action plan for AMR	174000	1	1	1	1	1	870 000	IHR members sensitized	By December 2021, a functional inter-ministerial coordination established	Annually	Report, attendance sheet

3. Anti-Microbial Resistance

					Years of implementation						Monitoring and Evaluation			
	Lead Agency	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually)	Source of verification
Objective 1	**To establish a structure for multisectoral collaboration, governance and communication on AMR by December 2025**													
Identify existing governance structures into which an AMR multi-sectoral committee may be positioned by 2025.														
Nominate AMR focal person(s) for MoHSS & MWAF for 5 years	MoHSS	WHO UNDP PEPFA, GoJ,GIZ	IHR, NAAP, GAP	No cost	1					No cost	Focal persons designated	By December 2025, an effective multisectoral AMR collaboration, governance & communication established	Monthly	Designation act
Conduct a 1day meeting with 30 participants to determine most suitable structure for governance on AMR	MoHSS	UNDP WHO PEPFAR FAO	IHR, GAP, NAAP	No cost	**1**					No cost	suitable structure for governance on AMR determined	By December 2025, an effective multisectoral AMR collaboration, governance & communication established	Quarterly	Report, attendance sheets
Nominate and appoint key stakeholders as representative members for the AMR multi-sectoral committee.	MoHSS	UNDP WHO PEPFAR FAO	GAP, NAAP	No cost	**1**					No cost	Members for the AMR multi-sectoral committee nominated	By December 2025, an effective multisectoral AMR collaboration, governance &	Quarterly	Nomination Act

												communicatio n established		
Conduct annual M&E meetings with 30 participants (14 regional) to ensure functionality of governance structures through M& E processes	MoHSS	WHO, FAO PEPFAR , UNDP	IHR, GAP, NAAP	80328	1	1	1	1	1	401 640	M&E reports	By December 2025, an effective multisectoral AMR collaboration, governance & communicatio n established	Annually	Meeting reports and attendance sheets
Objective 2:	To establish a laboratory network for the surveillance of AMR by designating AMR reference laboratories by June 2022													
Identify and assign reference laboratories for both human and animal health for the surveillance of AMR	MOHSS	WHO, FAO PEPFAR , UNDP	GAP, NA IHR, GAP, NAAP	No cost		1				No cost	By June 2022, reference Labs. identified	Laboratory network for AMR surveillance established by June 2022	Annually	Signed laboratory network legal framework
Objective 3 :	**To establish surveillance of antimicrobial usage and AMR in humans and animals to generate robust national data by December 2025**													
Create and implement a data source system for antimicrobial use and AMR for both humans and animals Laboratories	MOHSS, MAWF	WHO, FAO PEPFAR , UNDP	IHR, GAP, NAAP	No cost	1					No cost	Improved data system	AMR surveillance system functional	Annually	Central database
Objective 4:	**To establish mechanisms for coordinating to strengthening Infection Prevention and Control (IPC) initiatives at all levels of healthcare to prevent the spread of disease by December 2025**													
Strengthen and expand governance structures including IPC committees and IPC trained coordinators at all levels of healthcare.														
Conduct a workshop to train IPC coordinators (40 healthcare workers) every 2 years	MoHSS	WHO UNDP PEPFAR Min of Higher	NAAP; MoHSS in-service training	TBD	1	1	1	1	1	TBD	40 IPC coordinato rs trained	By December 2025, mechanism in place to	Annually	Report and attendance register

		educatio n	curriculum on IPC									strengthen IPC practices		
Send three professionals to go for 3 year postgraduate Diploma in IPC	MoHSS	NASFAF	NAAP	TBD	1		1			TBD	3 students with postgrad Dip in IPC	By December 2025, mechanism in place to strengthen IPC practices	Annually	Diploma
Send 1 person to go for MSc IPC training program	MoHSS	NASFAF	NAAP	TBD	2	2	2	2	2	TBD	1 student with postgrad Dip in IPC	By December 2025, mechanism in place to strengthen IPC practices	Annually	Diploma
Ensure healthcare workers are familiar with the content of guidelines and protocols on IPC in all healthcare facilities by 2020														
Printing of 500 IPC guidelines and protocols	MoHSS HR	CDC UNDP GF	ICAT Infection Control tool Guideline MoHSS IPC curriculum	250000	1					250000	500 copies of guidelines	By December 2025, mechanism in place to strengthen IPC practices	Bi Annually	Guidelines and protocols in place
Dissemination of guidelines and protocols on IPC in all healthcare facilities by 2023														
Conduct workshops to train district level healthcare workers on IPC protocol and guidelines (40 health workers from the14 regions)	MOHSS	CDC WHO GF	ICAT Infection Control tool Guideline MoHSS IPC curriculum	2876664	1	1	1			2 876 664	40 district health workers trained on IPC	By December 2025, mechanism in place to strengthen IPC practices mechanism in place	Quarterly	Attendance register Training report
Equip heath facilities with commodities and supplies for IPC by 2024.														

Procure adequate PPEs for usage in an infectious the treatment centers	MOHSS (HRD) Emergency contingency fund	WHO CDC FAO	Infection Control Guideline and Protocols	5100000	1	1	1	1	1	25 500 000	PPEs procured	By December 2025, mechanism in place to strengthen IPC practices	Annually	Procurement receipts
Procure and erect 22 Pre-fabricated isolation units for highly pathogenic diseases	MOHSS	CDC WHO	Infection Control Guideline and Protocols	33,000,000			1			33 000 000	22 Pre-fabricated isolation units acquired erected	By December 2025, mechanism in place to strengthen IPC practices	Annually	Procurement receipts
Monitor and evaluate the implementation of IPC practices (developing key performance indicators) through health facility audits by November 2024														
Conduct quarterly supervisory visits to facilities on use the ICAT once a year and submit results to QA unit	MOHSS	WHO, CDC GF Intra-Health UNICEF	ICAT MOHSS IPC Curriculum	60810	4	4	4	4	4	1 216 200	4 supervisions conducted per year	By December 2025, mechanism in place to strengthen IPC practices	Bi-annually	Annual IPC training report, Attendance list
Conduct meetings at IPC unit to develop a self -assessment tool to be used by health facilities and submit quarterly self -assessment report to IPC	MOHSS - QA	WHO, CDC GF Intra-Health UNICEF	IPC Guideline, NAAP, WHO core component on IPC	No cost	4	4	4	4	4	No cost	4 Self-assessment tool performed per year	By December 2025, mechanism in place to strengthen IPC practices	Quarterly	Quarterly meeting report
Establish feedback mechanisms on the outcome of the audits and implement continuing quality improvement initiatives.														

Compile quarterly national feedback report and give feedback during National IPC steering committee meetings on the status of IPC practices	MOHSS - QA	WHO, CDC, GF Intra-Health UNICEF	IPC Guideline, NAAP, WHO core component on IPC	No cost	4	4	4	4	4	No cost	Quarterly national feedback report	By December 2025, mechanism in place to strengthen IPC practices	Quarterly	Copy of approved Quarterly national feedback report
Based on National feedback report findings and recommendations, determine facilities for annual support visits and for QI initiatives implementation to address the identified gaps	MOHSS – QA	WHO, CDC, GF Intra-Health UNICEF	IPC Guideline, NAAP, WHO core component on IPC	No cost		1	1	1	1	No cost	Annual support supervisory visit report compiled	By December 2025, mechanism in place to strengthen IPC practices	Quaterly	Approved annual support supervisor y visit report
Objective 5:	**To promote awareness on AMR in both human and animal health sectors at health facility and community levels by December 2025**												
Incorporate the WHO national AMR awareness week into the annual ministerial calendars by 2020													
Submit a letter to offices of EDs of MOHSS & MOWAF on inclusion of World Antibiotic Awareness Week in to ministerial calendars	MOHSS, MOWAF	WHO, PEPFA, FAO	IHR, NAAP	No cost		1				No cost	National AMR awareness week incorporated into the annual ministerial calendars	By December 2025, Improved community Awareness on AMR	Annually	Ministeria l calendar
Develop and implement communication plan (through AMR Awareness Week) by 2020 updated annually.													
Recruit 1 international consultant for 30 days to develop key messages collaboratively with key stakeholders for animals and humans sectors (AMR, AMU, withdrawal period, carcass disposal)	MoHSS, MAWF	WHO, PEPFA, FAO	IHR, NAAP	366600		1	1	1	1	1 833 000	Key AMR awareness messages developed	By December 2025, Improved community Awareness on AMR	Annually	Printed key messages

Develop and produce TV, printed and radio ads/scripts	MoHSS, MAWF	WHO, PEPFA, FAO	IHR, NAAP	26000	1	1	1	1	1	130 000	Ads/scripts developed	By December **2025**, Improved community Awareness on AMR	Annually	Documentation of Ads/scripts
Conduct a 1 day meeting to engage 500 opinion (50 from regions) leaders on advocacy for the prevention of AMR in humans and animals,	MoHSS, MAWF	WHO, PEPFA, FAO	IHR, NAAP	880100	1	1	1	1	1	4 400 500	500 opinion leaders engaged on AMR advocacy	By December 2025, Improved community Awareness on AMR	Annually	Conference reports, attendance registers
Implement the communication plan (Production of thematic posters, banners, leaflets and branded T-shirts, caps and water bottles)	MoHSS, MAWF	WHO, PEPFA, FAO	IHR, NAAP	844400	1	1	1	1	1	4 222 000	AMR communication plan implemented	By December 2025, Improved community Awareness on AMR	Annually	Documentation and archives
Produce Radio advertisements (In English and 10 other local languages)	MoHSS, MAWF	WHO, PEPFA, FAO	IHR, NAAP	353760	1	1	1	1	1	1 768 800	Radio advertisements implemented	By December 2025, Improved community Awareness on AMR	Annually	Advert script copy
Produce advertisements in 10 half-page News Papers	MoHSS, MAWF	WHO, PEPFA, FAO	IHR, NAAP	77000	1	1	1	1	1	385 000	Newspaper advertisements implemented	By December 2025, Improved community Awareness on AMR	Annually	Newspapers copy

Feature in 10 TV broadcasts	MoHSS, MAWF	WHO, PEPFA, FAO	IHR, NAAP	104500	1	1	1	1	1	522 500	TV advertisements implemented	By December 2025, Improved community Awareness on AMR	Annually	Script copy
Provide support grants to the 14 regions to organize the Regional AMR awareness week	MoHSS, MAWF	WHO, PEPFA, FAO	IHR, NAAP	231000	1	1	1	1	1	1 155 000	Regional AMR awareness week commemorated	By December 2025, Improved community Awareness on AMR	Annually	Event reports

4. Zoonotic disease

					Year of implementation						Monitoring and Evaluation			
Key activities	Lead Agency	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2020	2021	2022	2023	2024	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually	Source of verification
Objective 1	**To establish a system for the surveillance for priority zoonotic diseases by December 2024**													
Sign MOU between MOHSS, MAWF, MET and other stakeholders														
Conduct a meeting to prepare the MoU	MoHSS MAWF	WHO OIE	NHEMC IDSR	No cost		1				No cost	MOU developed	By December 2025, surveillance system for zoonotic	Quarterly	Signed MOU

												diseases established		
To review and prioritize zoonotic diseases under surveillance.														
Conduct a meeting to prioritize zoonotic diseases	MOHSS, MAWF	WHO OIE SADC AU/ IBAR	NHEMC IDSR	No cost		1				No cost	Zoonotic diseases prioritized	By December 2025, surveillance system for zoonotic diseases established	Monthly	Attendance register
Establish the rapid notification system for priority zoonotic diseases under surveillance														
Hire an international consultant for 30 days to establish the rapid notification system	MOHSS, MAWF	WHO OIE SADC AU/ IBAR	NHEMC IDSR	147 300		1				147 300	Notification system in place	By December 2025, surveillance system for zoonotic diseases established	Quarterly	Consultant report
Evaluate, validate and implement the developed rapid notification system.														
Conduct a 1 day meeting with 10 people (the National Health Emergency Management Preparedness and Response committee), for the validation reporting system developed by the consultant	MOHSS, MAWF		NHEMC IDSR	5 100		1				5 100	Notification system validated	By December 2025, surveillance system for zoonotic diseases established	Quarterly	Attendance register

Conduct TOT on use of rapid notification system. The national consultant will train trainers on use of the rapid notification and information sharing system.														
Conduct a 1 day TOT workshop, facilitated by the consultant, with 30 people (26 from the regions)	MOHSS, MAWF		NHEMC IDSR	80 352			1			80 352	30 participants trained on notification	By December 2025, surveillance system for zoonotic diseases established	Annually	Attendance register, Attendance certificates
Objective 2	To have a responsive Animal Health and Veterinary workforce by 2024													
Advocate to the OPM for recruitment of all necessary vacant positions in the animal sector for an efficient surveillance of priority diseases														
Recruit 1 Chief Veterinarin,1 Control Veterinary Technician, 20 Animal Health Technicians, 10 Senior Agricultural Inspectors and 10 Agricultural Inspectors	MAWF OPM		MAWF staff structure	9 632 188		1	1	1	1	48 160 942	Positions approved for recruitment	By December 2025, responsive animal workforce in place	Quarterly	Recruitment contracts

5. Food Safety

					Year of implementation					Monitoring and Evaluation				
Key activities	Lead Agency	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2020	2021	2022	2023	2024	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually	Source of verification
Objective 1	**Establish functioning mechanisms for detecting and responding to food safety incidents by December 2024**													
Develop functioning mechanisms for detecting and responding to food safety incidents														
Hire a national consultant for 25 working days to develop functioning mechanisms for detecting and responding to food safety incidents	MoHSS			147300	1					147300	Mechanisms for detecting and responding to food safety incidents developed	By December 2025, a functioning mechanisms for detecting and responding to food safety incidents in place	Annually	Consultation TOR and report
Develop draft Food Safety Bill regulations														
Conduct a 2-day workshop to develop draft Food Safety Bill regulations with 55 participants, 20 from the regions	Port Health			229520	1					229520	Draft Bill regulations	By December 2025, a functioning mechanisms for detecting and responding	Quarterly	Consolidation report of the inputs generated from the consultativ

												to food safety incidents in place		e workshop.
Harmonize the Acts, regulations, policies by developing short to medium term integrated SOPs and technical regulations addressed in National Legislation Pillar.														
Conduct a 2-day meeting to harmonize the Acts, regulations, policies	MoHSS			No cost	1					No cost	Bill regulations harmonized and SOP developed	By December 2025, a functioning mechanisms for detecting and responding to food safety incidents in place	Quarterly	Consolidation report of the inputs generated from the workshop
Conduct a 2 days meetings to develop short to medium term integrated SOPs and technical regulations addressed in National Legislation Pillar.	Port health			No cost		1					SOPs and technical regulations developed	By December 2025, a functioning mechanisms for detecting and responding to food safety incidents in place	Quarterly	SOPs and technical regulations
Staff reinforcement of point of entry to implement food safety related activities.														
Recruit 20 Health Officers Posts	MoHSS			4867280	1	1	1	1	1	24 336 400	20 health officers post recruited	By December 2025, a functioning mechanisms for detecting and	Annually	20 employment contracts

												responding to food safety incidents in place		
Capacity building for POE personnel through training of trainers on Risk based Inspection on SPS related matters on food safety.														
Conduct a training of trainers of 50 people all from regions by international consultant (for 5 working days, 15 from AMTA, 15 MAWF, 15 from MOHSS, 5 NCRST).	AMTA, MAWF, MOHSS, NCRST			407400	1			1		814 800	50 certified trainers	By December 2025, a functioning mechanisms for detecting and responding to food safety incidents in place	Annually	1.Workshop report by Consultant 2. Training manuals for trainers 3. Certificates of 50 trainers
Acquiring food safety devices at points of entry and centrally to increase testing capacity.														
Procure and deploy 20 food safety devices	MoHSS			5000 000	1					5 000 000	Food safety devices deployed centrally and at point of entrance	By December 2025, a functioning mechanisms for detecting and responding to food safety incidents in place	Annually	20 additions of food safety devices into each Government asset register
Capacity building of trainers on how to use the food safety devices														
Conduct a 2-day training workshop for 20 trainers (15 from the regions) on use of food safety devises	MoHSS			109240		1				109240	20 certified trainers	By December 2025, a functioning mechanisms	Annually	1.Workshop report 2. Training manuals for trainers

												for detecting and responding to food safety incidents in place		3. Certificates of 20 trainers
Acquiring rapid test kits for testing mycotoxins to increase testing capacity for major points of Entry														
Procure 20 rapid test kits for mycotoxin testing	MoHSS			400000	1					400000	20 rapid test kits for mycotoxin procured	By December 2025, a functioning mechanisms for detecting and responding to food safety incidents in place	Annually	20 rapid test kits for mycotoxin registered into Government asset register
Develop Food Safety Inspection System software and application														
Hire a National Software Developer to develop software for real time Food Safety Inspection	MoHSS			353520	1					353520	National real time Food Safety Inspection software and application developed	By December 2025, a functioning mechanisms for detecting and responding to food safety incidents in place	Annually	1. Food safety Inspection System software 2. Application that can be used on Tablets and smartphones and sends information to a

														central server
Procure software licensing and population of Food safety Inspection System														
Procure software licensing and populate the Food Safety Inspection System	MoHSS			1570000	1					1 570 000	Annual software licensing procured and functional to Food Safety Inspection System	By December 2025, a functioning mechanisms for detecting and responding to food safety incidents in place	Annually	Real time (up to date) and online Food Safety Inspection System
Procure tablets and laptops for food safety data entry														
Procure 40 tablets and 10 laptops for food safety data entry	MoHSS			235000	1			1		470 000	80 tablets and 20 laptops procured	By December 2025, a functioning mechanisms for detecting and responding to food safety incidents in place	Annually	80 tablets and 20 laptops registered into Governme nt asset register
Capacity building of trainers on using the real time inspection system														
Conduct a 3 days training of 50 trainers on using the real-time inspection system (30 from the regions)	MoHSS			345 600	1			1		691 200	50 certified trainers	By December 2025, a functioning mechanisms for detecting and	Annually	1.Worksho p report 2. Training manuals for trainers 3. Certificates

												responding to food safety incidents in place		of 50 trainers
Benchmark of food safety best practices														
Conduct a 1 day meeting to plan for inter-ministerial tour to benchmark of food safety best practices	MoHSS			5100		1				5100	Pan for tour to benchmark food safety best practices available	By December 2025, a functioning mechanisms for detecting and responding to food safety incidents in place	Yearly	Meeting report and attendance register
Conduct benchmarking tour by the inter-ministerial team														
Conduct 7-day benchmarking tour (6 people, 2 from each ministry to visit the identified country)	MoHSS			209640			1			209640	Food safety best practices report	By December 2025, a functioning mechanisms for detecting and responding to food safety incidents in place	Annually	1. 6 flight tickets and proof of payment of 6 DSA payments 2. Internal traveling report

6. Biosafety and Biosecurity

					Year of implementation						Monitoring and Evaluation			
Key activities	Lead Agency	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually	Source of verification
Objective 1	**Establishment of a functional interministerial task force to develop an integral biosafety and biosecurity system by December 2025**													
Intergrade Biosafety and Biosecurity System for pathogens of human, animals and plants in existing Biosafety legislations.														
Nominate and appoint JTC members to work on existing legislation	MoHSS MAWF	FAO UNICEF WHO UN-RC CDC		No cost	1					No cost	JTC members for existing legislation appointed by June 2021	By December 2025, an integral biosafety and biosecurity system developed	Monthly	Appointment letter
Con duct a 2-day consultation workshops to update regulations to include animal, agricultural and health sectors	MoHSS MAWF	FAO UNICEF WHO UN-RC CDC		248080	1					248080	Updated regulations that included animal, agricultural and health sectors in a community health by March 2020	By December 2025, an integral biosafety and biosecurity system developed	Quarterly	1, Meeting minutes 2. Report on updated regulation
Conduct 2 cross-sector coordination meetings to harmonize SOPs to improve biosafety systems	MoHSS MAWF	FAO UNICEF WHO UN-RC CDC	Animal health act No 1 of 2011 and its Regulations	90456	2					180 912	By June 2022 the increased cross-sector coordination and harmonized	By December 2025, an integral biosafety and biosecurity	Once off	1. Report on cross-sector coordination 2. Updated SOPs

											SOPs in the biosafety systems by one desktop activity and two in-house meetings (For 20 people from 14 from the regions)	system developed		3. Desk top report 4. Workshop report and minutes
Hire an International trainer for 3 days to develop a Bio-risk management procedure	MoHSS MAWF MET	FAO UNICEF WHO UN-RC CDC		57720	1					57720	Biorisk management procedure developed	By December 2025, an integral biosafety and biosecurity system developed	Annually	1. TOR for consultanc y 2. Contract
Conduct a 3-day Training of 20 JTC members on bio-risk management (14 from the regions)	MoHSS MAWF MET	FAO UNICEF WHO UN-RC CDC		146580	1					14 6580	20 JTC members trained	By December 2025, an integral biosafety and biosecurity system developed	Annually	1.Worksho p report by Consultant 2. Training manuals for trainers 3. Certificates of 20 JTC members
Conduct series of 5 workshops of working committee (20 people. 14 from the regions) to develop a costed national bio-risk management strategic plan	MoHSS MAWF MET	FAO UNICEF WHO UN-RC CDC		131808		1				131808	1costed national bio-risk management strategic	By December 2025, an integral biosafety and biosecurity	Annually	1. Five of workshops reports 2. Attendance registers and

											plan developed	system developed		minutes for 20 participants
Conduct visits to three different countries (5 JTC members) to benchmark with existing biosafety and biosecurity system	MoHSS (ITC)	FAO UNICEF WHO UN-RC CDC		474300		1				474300	1 benchmark report from 3 different countries on existing biosafety and biosecurity system by 5 JTC members	By December 2025, an integral biosafety and biosecurity system developed	Annually	1. 15 flight tickets 2. Three visit reports 3. Final Benchmarking report
Conduct three workshops to develop a strategic national laboratory plan with stakeholders for biosafety and biosecurity	MoHSS (ITC)	FAO UNICEF WHO UN-RC CDC		911700		1				911700	By June 2022developed strategic national laboratory plan	By December 2025, an integral biosafety and biosecurity system developed	Annually	1. Three workshops reports 2. Attendance registers and minutes for 50 participants
Conduct two meetings of 20 JTC members to develop the national laboratory plan	MoHSS (ITC)	FAO UNICEF WHO UN-RC CDC		38400		1				38400	By November 2023 a national laboratory plan developed	By December 2025, an integral biosafety and biosecurity system developed	Annually	1. Two workshops reports 2. Attendance registers and minutes for 20 participants

Review labelling regulations to handle and ship dangerous pathogens														
Conduct a visit to meet private and public transport services to nominate 20 members of the review committee	MoHSS (ITC)	FAO UNICEF WHO UN-RC CDC		No cost	1					No cost	20 members of the review committee nominated by public transport services	By December 2025, an integral biosafety and biosecurity system developed	Annually	20 Nomination letter
Conduct 2 in-house meetings of 20 review committee members to review existing regulations, guidelines and procedures to be in accordance with WHO guidelines	MoHSS (ITC)	FAO UNICEF WHO UN-RC CDC		10200	1					10200	By June 2022 reviewed existing regulations, guidelines and procedures to be in accordance with WHO guidelines	By December 2025, an integral biosafety and biosecurity system developed	Annually	1. Two workshops reports 2. Attendance registers and minutes for 20 participants
Conduct 3 larger one day stakeholder consultation workshops in a community hall for 50 (20 from regions) stakeholders	MoHSS (ITC)	FAO UNICEF WHO UN-RC CDC		376620	1					376620	By August 2022 community consulted the reviewed existing regulations, guidelines and procedures to be in accordance with WHO guidelines	By December 2025, an integral biosafety and biosecurity system developed	Annually	1. Three consultation workshops reports 2. Attendance registers and minutes for 50 participants (20 from regions)

														stakeholders
Conduct a 1 day meeting of the review committee members to include recommended amendments and submit final report	MoHSS (ITC)	FAO UNICEF WHO UN-RC CDC		No cost	1					No cost	By December 2022 reviewed final existing regulations, guidelines and procedures to be in accordance with WHO guidelines	by December 2025, an integral biosafety and biosecurity system developed integrated	Annually	Final Report
Develop an inventory of pathogens found monthly in both human and animal health laboratories														
Designation of one person to submit an inventories every 6 months of all pathogens identified by each human and animal health laboratory	MoHSS & NIP	FAO UNICEF WHO UN-RC CDC	Animal health act No 1 of 2011 and its Regulations, Public health act, Medicine act	No cost						No cost	By June 2021 the pathogens has an updated list of all pathogens found 6 monthly in human and animal health laboratories	By December 2025, an integral biosafety and biosecurity system developed	6 monthly	Designation letter
Enforce regulations to protect personnel working at laboratories against laboratory-acquired infections under the labor act														
Designation of 50 health inspectors in 14 regions by the MoHSS Occupational Health Officer (OHO)	MoHSS		Animal health act No 1 of 2011 and its Regulations, Public health act, Medicine act	No cost	1					No cost	By June 2022 fifty health inspectors in 14 regions identified	By December 2025, an integral biosafety and biosecurity	Annually	50 appointment letters issued

												system developed		
Conduct a 3-day workshop by OHO to train 50 health inspectors how to enforce regulations.	MoHSS		Animal health act No 1 of 2011 and its Regulations, Public health act of 2003, Medicine act	429000	1			1		858 000	By November 2022 fifty 50 health inspectors trained on how to enforce regulations	by December 2025, an integral biosafety and biosecurity system developed	Monthly	1. Training workshops reports 2. Attendance registers 50 participants 3. Developed Training manuals
50 Health inspectors undertake once every 6 months inspections to enforce regulation at district level	MoHSS		Animal health act No 1 of 2011 and its Regulations, Public health act of 2003, Medicine act	22500	1	1	1	1	1	112 500	By December 2023 Health inspectors undertake at least 20 inspections per year	by December 2025, an integral biosafety system biosecurity plan developed	6 monthly	20 Inspections reports with recommendations
Objective 2	**Develop capacity of MoHSS and NCRST on biosafety and biosecurity based on a One Health Approach by December 2023**													
Implement a need assessment in partnership with academia and international organizations and develop a training plan that addresses the gaps														
Sign MoU between MoHSS and NCRST and Establish a Joint Technical Committee (JTC)	MoHSS and NCRST			No cost	1					No cost	By June 2021 Joint Technical Committee (JTC) established	By December 2023capacity of MoHSS and NCRST on biosafety and biosecurity based on a One Health	6 monthly	Signed MOU and TOR of Establish a Joint Technical Committee (JTC)

												Approach developed		
JTC Conduct (10 members) a need assessment to identify gaps in 4 regions for 14 days	MoHSS and NCRST			421680	1					421680	By September 2021 need assessment to identify gaps in 4 regions conducted	By December 2023 capacity of MoHSS and NCRST on biosafety and biosecurity based on a One Health Approach developed	6 monthly	Report with identified gaps in 4 regions
Conduct a 3 day, in-house meetings of JTC to develop a training plan that addresses the gaps	MoHSS and NCRST			14100	1					14100	By February 2022training plan that addresses the gaps by developed	By December 2023 capacity of MoHSS and NCRST on biosafety and biosecurity based on a One Health Approach developed	6 monthly	Meeting report and attendance register
Conduct a 1 day meeting of JTC members to develop plan on how to implement Biosafety and Biosecurity training plan	MoHSS and NCRST			No cost		1				No cost	By June 2022implementation of the training plan that addresses the gaps by developed	By December 2023capacity of MoHSS and NCRST on biosafety and biosecurity based on a	6 monthly	Meeting report and attendance register

												One Health Approach developed		
Conduct a training workshop on Biosafety and Biosecurity for 30 stakeholders from 14 regions for 2 days by JTC members	MoHSS and NCRST			188880		1				188880	By October 2023, thirty stakeholders from 14 regions for 2 days by JTC members in Biosafety and Biosecurity	By December 2023 capacity of MoHSS and NCRST on biosafety and biosecurity based on a One Health Approach developed	6 monthly	1. Training workshops reports 2. Attendance registers 30 participants 3. Developed Training manuals
Developing interval short training workshops (theory and practical) to raise awareness among laboratory workforce of biosafety and biosecurity														
Conduct a meeting with responsible Authorities to nominate members of working committee	MoHSS and NCRST			No cost	1					No cost	By December 2021members of working committee nominated	By December 2023 capacity of MoHSS and NCRST on biosafety and biosecurity based on a One Health Approach developed	6 monthly	Minutes with nominations of members of working committee
Conduct a 3 day in-house meeting of working committee members, 20 people to review existing curriculum and training strategies for biosafety and biosecurity at participating universities	MoHSS and NCRST		Curriculum and training strategies for biosafety and biosecurity	27000		1				27000	By March 2022 review existing curriculum and training strategies for biosafety	By December 2023 capacity of MoHSS and NCRST on biosafety	6 monthly	Meeting report and attendance register

											and biosecurity reviewed	and biosecurity based on a One Health Approach developed		
Conduct a 2 day training of working committee (20) members in a hotel on how to raise awareness to biosafety and biosecurity workforce	MoHSS and NCRST			59200		1				59200	By July 2022training of working committee on raise awareness to biosafety and biosecurity	By December 2023capacity of MoHSS and NCRST on biosafety and biosecurity based on a One Health Approach developed	6 monthly	1. Training workshops reports 2. Attendance registers 20 participants 3. Developed Training manuals
Conduct 2 Training workshop (one being a refresher),30 people (14 from the regions) of biosafety and biosecurity workforce by working committee members in their respective institutions	MoHSS and NCRST			381360		1				381360	By September 2022 for 3 days Institutional training of working committee on raise awareness to biosafety and biosecurity	By December 2023capacity of MoHSS and NCRST on biosafety and biosecurity based on a One Health Approach developed	6 monthly	1. Training workshops reports 2. Attendance registers 30 participants 3. Developed Training manuals
Implement rapid and advanced testing of food imported into Namibia for GMOs														
Document border assessment in a report	MoHSS and NCRST			No cost	1					No cost	By September 2021Border assessment	By December 2023capacity of MoHSS	6 monthly	Border assessment report

											report completed	and NCRST on biosafety and biosecurity based on a One Health Approach developed		
Procure rapid testing kits (20 per border every year), fridges (2 per border), computers (2 per border)	MoHSS and NCRST			4818000		1				4818000	By February 2022 rapid testing kits (20 per border every year), fridges (2 per border), computers (2 per border) procured	By December 2023 capacity of MoHSS and NCRST on biosafety and biosecurity based on a One Health Approach developed	6 monthly	Rapid testing kits, fridges and computers into each Governme nt asset register
Train all border personnel on use of the Rapid test kits at 11 borders, 2 trainers going to points of entry for 1 day at each point of entry	MoHSS and NCRST			66264		1				66264	By July 2022border personnel trained on use of the Rapid test kits at 11 borders	By December 2023 capacity of MoHSS and NCRST on biosafety and biosecurity based on a One Health Approach developed	6 monthly	1. 11Training workshops reports 2. 11 Attendance registers of participant s 3. Developed Training manuals
Hire an International trainer to train local scientists on GMO testing	MoHSS and NCRST			183560		1				183560	By June 2022Internat ional trainer	By December 2023	6 monthly	TOR and contract

											to train local scientists on advanced GMO testing appointed	capacity of MoHSS and NCRST on biosafety and biosecurity based on a One Health Approach developed		for consultant
Conduct a training of lab personnel on identification and testing of GMOs. (10 local scientists for 14 days by an international trainer	MoHSS and NCRST			63600		1				63600	By October 2022, ten lab personnel trained on identification and advanced testing of GMOs	By December 2023capacity of MoHSS and NCRST on biosafety and biosecurity based on a One Health Approach developed	6 monthly	Training workshops reports 2. Attendance registers of 10 participants 3. Developed Training manuals

7. Immunization

					Year of implementation						Monitoring and Evaluation			
Key activities	Lead Agency/Budget line holder	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually	Source of verification
Objective:	**Establish a mechanism to ensure the reliability of immunization coverage data by 2024**													
Develop a user friendly mechanism for reporting vaccinations from private facilities.														
Conduct a 1 day meeting with 20 people from MoHSS and relevant stakeholders including private practitioners to review the immunization and surveillance status/trend, and strengthen the reporting system of Public Health perspective.	MoHSS EPI Unit	WHO UNDP PEPFAR GF UNFPA UNICEF	EPI Immunization guidelines	60400	1	1	1	1	1	302 000	Consultation meeting report	By December 2024, a mechanism in place to ensure the reliability of immunization coverage data	6 monthly	Meeting report and attendance register
Publish newsletter to encourage reporting from stake holders (100 copies bi-annually)	MoHSS EPI Unit & Epidemiology	WHO UNDP PEPFAR GF UNFPA UNICEF	EPI Immunization guidelines	20 000	2	2	2	2	2	200 000	6 Approved newsletters publication	By December 2024, a mechanism in place to ensure the reliability of immunization coverage data	6 monthly	Copies of newspapers
Conduct supervisory support of subnational staff on immunization guidelines	MoHSS EPI Unit & Epidemiology	WHO UNDP PEPFAR GF UNFPA UNICEF	EPI Immunization guidelines	3231900	1	1	1	1	1	16 159 500	Number of immunization support visits conducted	By December 2024, a mechanism in place to ensure the reliability of	6 monthly	Supervision reports

												immunizatio n coverage data		
Develop, print and disseminate 100 immunization registers that will capture cross border populations, strengthen internal registration , cross border meetings	MoHSS EPI Unit	WHO UNDP PEPFAR GF UNFPA UNICEF	EPI Immunization guidelines	30000		1	1	1	1	120 000	100 registers printed and distributed	Internal and cross boarder immunizatio n data strengthens	Annually	In voice
Print and distribute 1000 copies of immunization guideline to both public and private health facilities. 1000 copies / 80 pages /N$5	MoHSS EPI Unit	WHO UNDP PEPFAR GF UNFPA UNICEF	EPI Immunization guidelines	400000	1		1		1	1 200 000	1000 immunizatio n guidelines printed and distributed to health facilities	By December 2024, a mechanism in place to ensure the reliability of immunizatio n coverage data	Annually	In voice
Hire an International consultant for 10 working days for REC training of TOTs	MoHSS EPI Unit	WHO UNDP PEPFAR GF UNFPA UNICEF	EPI Immunization guidelines	137800	1					137 800	TOTs prepared	By December 2024, a mechanism in place to ensure the reliability of immunizatio n coverage data	Annually	1 REC consultant contract signed
Conduct a 5 days TOT training of 60 workers from the District and Region on RED,	MoHSS EPI Unit	WHO UNDP PEPFAR GF UNFPA UNICEF	EPI Immunization guidelines	788880	1					788 880	60 TOT trained	By December 2024, a mechanism in place to ensure the reliability of immunizatio	Once	Training report Attendance register

												n coverage data contributing to data accuracy		
Conduct training for district and regional health workers on EVM	MoHSS EPI Unit	WHO UNDP PEPFAR GF UNFPA UNICEF	EPI Immunization guidelines	1604400	1					1 604 400	EVM training report	By December 2024, a mechanism in place to ensure the reliability of immunizatio n coverage data	Annually	Training report Attendance register
To partner with NGOs to improve awareness creation on immunization	MoHSS EPI Unit	UNICEF WHO USAIDS		No cost	1					No cost	MOUs/Partn ership document	By December 2024, a mechanism in place to ensure the reliability of immunizatio n coverage data	Quarterly meetings	Signed MOU/Part nership document
To create immunization stations at targeted POEs for 5 years period.	MoHSS EPI Unit & Public/Env iromental Health	UNICEF WHO USAIDS		1000000			1	1	1	3 000 000	Three fully furnished structures (vaccination room, examination room)	By December 2024, a mechanism in place to ensure the reliability of immunizatio n coverage data	6 monthly	Immunizat ion creation Acts

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8. National laboratory system

				Year of implementation							Monitoring and Evaluation			
Key activities	Lead Agency	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually)	Source of verification
Objective 1	**Built capacity for personnel of the Regional Laboratories for both human and animal health by December 2025**													
Conduct an inventory of skills for human and animal in 5 Regional laboratories (4 human and 1 animal lab)														
Conduct one training on human and animal skill needs assessment	CVL/NIP	WHO	Human Capital Development strategy (NIP), MAWF Training plan(CVL)	no cost	1		1		1	No cost	Skills Inventory report available	By December 2025, capacities for human and animal lab built	Biannual	Report an attendance register
Conduct training of the Laboratory Personnel to perform the required tests on priority disease for 4 regional labs														
Conduct a 5 day training meeting workshop of 2participant per lab s at central level	CVL/NIP	WHO	Human Capital Development strategy (NIP), MAWF Training plan(CVL)	46704	1	1	1	1	1	233 520	10 staff trained	By December 2025, capacities for human and animal lab built	Yearly	Meeting report and attendance register
Conduct a yearly training of the Animal Laboratory Personnel to perform Brucella serology testing														

Conduct a 1 week training in the central laboratory, per diem and travel costs for 2 people from the lab	CVL/NIP	WHO	Human Capital Development strategy (NIP), MAWF Training plan(CVL)	11676	1	1	1	1	1	58 380	Number of staff trained	By December 2025, capacities for human and animal lab built	yearly	Meeting report and attendance register
Conduct yearly support supervisory visits to the 6 labs (4 Human & 2 Animal)														
Conduct a 5 days supervisory visits from central level to the labs, once a year, 1 person per visit	CVL/NIP	WHO	Human Capital Development strategy (NIP), MAWF Training plan(CVL)	4630	1	1	1	1	1	23 150	5 supervisory visits conducted	By December 2025, capacities for human and animal lab built	yearly	Supervision report
Objective 2:	**Introduce Point of Care (POC) technology for priority diseases at 6 human Laboratories and 3 Animal Labs by March 2025**													
Identify priority diseases for POC testing in 6 human regional labs and 3 Animal Labs, to enable them to perform the POC tests														
Conduct a 1 day meeting to identify priority diseases for POC testing	NIP	WHO/CDC	Annual equipment capacity assessment	No cost	1					No cost	List of priority diseases	By March 2025, POC technology introduced for priority diseases	Yearly	Meeting report, attendance register
Equip the laboratories with the POC testing equipment for priority diseases														
Procure the equipment as per the required specification	NIP/CVL	WHO		100 000	1					100 000	Equipment procured	By March 2025, POC technology introduced for priority diseases	Yearly	Equipment inventory, invoices
Finalize the POC testing guidelines developed in 2015														

Conduct a meeting to finalize the 2015 POC testing guidelines	CVL/NIP	WHO		No cost	1					No cost	POC guidelines finalized	By March 2025, POC technology introduced for priority diseases	Yearly	Report and attendance register
Conduct an orientation meeting to staff members and implement POC testing	CVL/NIP	WHO		No cost	1		1		1	No cost	Number of staff oriented	By March 2025, POC technology introduced for priority diseases	Yearly	Training register and report
Objective 3	**Maintain and increase the capacity in laboratory Quality Management System of 20 human labs and 3 Animal labs by March 2025**													
Conduct Training in QMS in 20 human labs using 2 local and 2 International trainers														
Conduct 3 sessions of 5 days of training on QMS with 20 participants (1 staff from 20 labs per year, at central level, over 18 months training)	NIP	WHO		967566	1	1	1	1	1	4 837 830	20 staff trained on QMS	QMS maintained in the 20 human and 3 animal labs	Yearly	Training report
Hire 2 international to train human lab staff on QMS	NIP	WHO		552240	1	1	1	1	1	2 761 200	Staff trained in 2à human labs	QMS maintained in the 20 human and 3 animal labs	yearly	Training report, attendance register

Train staff in 3 animal labs on QMS using 2 local and 2 international consultants														
Conduct a 5 days training with 15 participants from 3 animal labs on QMS at central level	CVL			110839	1					110839	15 staff trained	QMS maintained in the 20 human and 3 animal labs	Yearly	Training report, attendance register
Hire 2 international trainers to train animal lab staff on QMS	CVL			206960		1				206960	Training performed	QMS maintained in the 20 human and 3 animal labs	Once off	Consultant report
Objective 4	**Appraise and Review the laboratory quality management system, through periodic quality audits across the country by December 2025.**													
Conduct periodic quality assessment and disseminate findings to relevant stakeholders for human labs														
Conduct field visit to assess QMs in 40 human labs	NIP	WHO		110184	1	1	1	1	1	550 920	40 Labs visited	By December 2025, 40 labs audited for QMS	yearly	Audits reports
Disseminate findings of periodic quality assessment to relevant stakeholders for animal labs	CVL			No cost	1	1	1	1	1	No cost	Number of Labs visited	By December 2025, 40 labs audited for QMS	Yearly	Audits reports

Conduct an external assessment for accreditation for human labs														
Assess 2 labs human labs per year for the purpose of accreditation	NIP	WHO		200000	1	1	1	1	1	1 000 000	Accreditation report available	By December 2025, 40 labs audited for QMS	yearly	Accreditation checklist result
Objective 5	**Increase the scope and scale from 15 to 20 the number of Labs that are internationally accredited by March 2025**													
Conduct an external assessment for accreditation of vet labs														
Pay annual accreditation membership fee	CVL		SADCAS Website	400000	1	1	1	1	1	2 000 000	Accreditation membership fee paid	By March 2025, 5 additional labs are internationally accredited	Yearly	Invoice
Review and Equip sentinel laboratory capacity in both the public and private sector for improved volume of diagnostic and surveillance testing.														
Procurement of 3 Vitex, to equip the 3 identified AMR sentinel surveillance lab	CVL		National Action plan on AMR	5100000	1					5100000	3 Vitex equipment procured	By March 2025, 5 additional labs are internationally accredited	Yearly	Invoice

Build the sentinel laboratory capacity among Technologists in both the public and private sector for increase number of diagnostic and surveillance testing.													
Conduct a training of 6 lab technologists on AMR curricula for 3 days in Windhoek once Vitex equipment has been installed	CVL		National action plan for AMR	33480		1			33480	6 technologists trained	Sentinel lab capacity developed	Yearly	Attendance register

9. Real time surveillance

					Year of implementation						Monitoring and Evaluation			
Key activities	Lead Agency	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually)	Source of verification
Objective 1	Establish and implement event-based surveillance as outlined in the Namibia IDSR guideline (2011) to complement indicator based surveillance by March 2025													
Establish real time event based surveillance in animal and human health at all levels														
Conduct a 1 week Peer to peer visit to a country with a well functional event based surveillance systems	MoHSS-HIRD, MAWF-EPID		IDSR (2011), NIPH Weekly IDSR reporting	214400	1					214 400	Peer to Peer visit conducted	By March 2025, event based surveillance in place	Annually	Travel report

			based system											
Procure software and devices for event based surveillance (cellphones and laptops)	MoHSS-HIRD, MAWF-EPID		IDSR (2011), NIPH	13420000	1					13 420 000	Software and devices procured	By March 2025, event based surveillance in place	Annually	Invoices
Employ an international consultant for 15 days to install the software, orient the national counterpart and conduct five-day training of trainers	MoHSS-HIRD, MAWF-EPID		IDSR (2011), NIPH	195000	1					195000	Software on EBS installed into various devises	By March 2025, event based surveillance in place	Annually	Consultant report Training report
Revise the curricula to include the content on surveillance staff time	MoHSS-EPID, MAWF-EPID		IDSR (2011), NIPH	No cost	1					No cost	Curriculum revised & content on surveillance expanded/ incorporated	By March 2025, event based surveillance in place	Annually	Revised curriculum with content on surveillance expanded/incorporated
Conduct a 5 days training of trainers with 70 Health and agricultural extension workers and health facility nurses in Event based surveillance	MoHSS-EPID, MAWF-EPID	WHO CDC	IDSR (2011), NIPH	920360	1					920360	70 ToT trained	By March 2025, event based surveillance in place	Once off	Training report

Conduct a training of 3500 community Health workers and agricultural technicians and health facility nurses in Event based surveillance	MoHSS-HIRD, MAWF-EPID	WHO CDC	IDSR (2011), NIPH	2700000	0, 33	0, 33	0, 33			2 700 000	Number of staff trained	By March 2025, event based surveillance in place	Yearly	Training reports
Hire an international consultant to conduct 1 week adaptation workshop (and TOT) for new version of IDSR with a WHO Consultant	MoHSS-HIRD, MAWF-EPID	WHO	IDSR (2011), NIPH	103480	1					103480	Adapted National IDSR Guideline	By March 2025, event based surveillance in place		Consultant report
Conduct 1 week workshop (and TOT) for adaptation of IDSR guideline with a WHO Consultant	MoHSS-HIRD, MAWF-EPID	WHO	IDSR (2011), NIPH	455864	1					455864	Adapted National IDSR Guideline	By March 2025, event based surveillance in place	Yearly	Workshop report, attendance register
Conduct a 1 week National Training for health workers (Doctors, Nurses and EHP) on the IDSR Guidelines in two clusters plus annual refresher training	MoHSS-HIRD, MAWF-EPID	WHO	IDSR (2011), NIPH	1291448	1	1	1	1	1	6 457 240	Number of staff trained	Capacity developed for health workers	Yearly	Training reports
Print and disseminate 1500 IDSR guidelines and training modules	MoHSS-HIRD, IEC	WHO	IDSR (2011), NIPH	375000	1			1		750 000	1500 guidelines and training modules printed	IDSR Guidelines disseminated to all facilities and in use	Yearly	Printing invoices, disseminatio n report
Conduct consultative meetings with the UNAM, NUST, School of Medicine, NHTC and other	MoHSS-HIRD, MAWF-EPID	WHO	IDSR (2011), NIPH	No cost	1			1		No cost	Number of consultati ve	Revision schedule for the	Yearly	Meeting minutes

nursing schools on the revision of the curriculum											meeting conducted	curriculum is agreed upon		
Conduct 2 day workshop to review and update the pre service training curricula to include IHR, ONE HEALTH & performance indicators of diseases targeted for elimination and eradication, new emerging diseases concepts and innovation for all institutions	MoHSS-HIRD, MAWF-EPID	WHO	IDSR (2011), NIPH	88800	1					88800	Workshop conducted and report available	Curriculum revised, surveillance content included and it is approved	Yearly	Workshop report
Objective 2	Activate information sharing between human and animal health by December 2022													
Establish an interconnected real time reporting system by 2021														
Establish an MOU between MoAWF, MoHSS, and MET for interconnecting the information systems	MoHSS-HIRD, MAWF-EPID		NIPH	No cost		1				No cost	MOU Submitted through legal department	By December 2022, information sharing activated between human and animal sector	6 monthly	MOU Document
Conduct a 1 day meeting with NHEMC & CCA-MAWF and MET to discuss on ONE HEALTH agenda	MoHSS-HIRD, MAWF-EPID		NIPH	No cost		1				No cost	Agenda point discussed and resolution agreed upon	By December 2022, information sharing activated between human and animal sector	6 monthly	Meeting Minutes

Objective 3	**Enhance timely data analysis and reporting by September 2025**												
Encourage the use of data for action													
Conduct 2 training with 60 participants of operational levels (district, health facility) to improve surveillance data analysis	MoHSS-EPID	WHO	IDSR Guideline	961920	1		1		1	961 920	60 staff trained	By September 2025 timely data analysis and reporting enhanced	Yearly	Training reports, data analysis report
Fast track establishment of periodic surveillance bulletin One Health monthly bulletin	MoHSS-EPID	WHO	IDSR Guideline, EPR Plan	24000	1	1	1	1	1	120 000	Surveillance bulletin is developed and shared with stakeholders	By September 2025 timely data analysis and reporting enhanced	quarterly	Bulletin, MoHSS/MAWF Websites, Emails
Advocate for the fill of vacant posts for improved analysis of data	MoHSS-HIRD	WHO	HR Critical position list/ HIRD Structure		1	1	1	1	1		Critical positions filled	By September 2025 timely data analysis and reporting enhanced	yearly	Critical position list

Sustain and Improve the syndromic surveillance reporting at all levels (community, facility, district, regional, national)													
Maintain timely (within 24 hours) Reporting of syndromic surveillance diseases as required (Immediate, weekly monthly etc)	MoHSS-EPID	WHO	IDSR Guideline	No cost	1	1	1	1	1	No cost	Report send on time	Improved timeliness and completeness of data	Weekly and immediate	IDSR Weekly report and CIFs
Advocate and motivate for positions and infrastructures at POEs to improve Syndromic surveillance													
Conduct a training of 22 Port health officials in 11 POEs) on the screening				289256	1					289256	22 port health officials trained			Training report, attendance register

10.Reporting

					Year of implementation						Monitoring and Evaluation			
Key activities	Lead Agency	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually)	Source of verification
Objective 1	**To have an improved system for efficient reporting to WHO, CDC, FAO, SADC, AU-ABR and OIE during outbreaks/events/emergencies by December 2025**													
Strengthen early reporting to WHO, OIE and FAO, and from community level to national level														

Conduct 10 days field investigation of events by 7 personnels to investigate within 72 hours from the event reporting to report all events within 24 hours to WHO	MoHSS/ MAWF-EPID	WHO	IDSR Guidelines, OIE Regulation, IHR 2005	2778380	1	1	1	1	1	13 891 900	All cases reporter as required	By December 2025, all events reported within 24 and 72 hours	Monthly	Notification sheets Investigation reports
Use of simulations of epidemics and exercises to improve the future response activities														
Conduct table top simulation exercise on notification of potential PHEIC	MoHSS/ MAWF-EPID	WHO CDC	IDSR Guidelines, OIE Regulation, IHR 2005	185120	2	2	2	2	2	1 851 200	Table top exercise conducted	By December 2025, all events reported within 24 and 72 hours	Yearly	Simulation exercise report
Conduct quarterly supervisory visits	MoHSS/ MAWF-Regional office	WHO	IDSR Guidelines, OIE Regulation, IHR 2005	173072	4	4	4	4	4	3 461 440	4 supervisory visits per year supervision visits conducted	By December 2025, all events reported within 24 and 72 hours	quarterly	Activity reports
Conduct a national annual supervisory visit to operational levels (Regions and Districts)	MoHSS/ MAWF-EPID	WHO	IDSR Guidelines, OIE Regulation, IHR 2005	185020	1	1	1	1	1	925 100	1 national support supervision visits conducted	By December 2025, all events reported within 24 and 72 hours	yearly	Activity reports available

Objective 2	To report 80% of events to WHO, FAO and OIE within 24 hrs by December 2025												
Conduct after action reviews to analyse what happened, why it happened, and how it can be done better by all the stakeholders.													
Conduct biannual data review meetings with all regions	MoHSS-EPID	WHO CDC	IDSR Guideline, HIRD Annual plan	1698208	1	1	1	1	1	8 491 040	Data review biannual meeting conducted	By December 2025, 80% of potential PHEIC are reported to WHO, FAO and OIE within 24 hrs	6 monthly	Meeting reports Attendance register
Share the feedback with all Regions/districts monthly	MoHSS-EPID	WHO CDC	IDSR Guideline, HIRD Annual plan	No cost	1	1	1	1	1	No cost	Monthly feedback shared	By December 2025, 80% of potential PHEIC are reported to WHO, FAO and OIE within 24 hrs	Monthly	Feedback reports shared, emails list
Hire an International consultant for 15 days to conduct a desk review (including the DQA Activity and planning)	MoHSS-EPID	WHO CDC	IDSR Guideline, HIRD Annual plan	195000	1					195 000	Desk review conducted	By December 2025, 80% of potential PHEIC are reported to WHO, FAO and OIE within 24 hrs	Yearly	Desk review report
Conduct a DQA in 17 districts with 3 staff (International consultant, national, regional driver)													
Hire an international consultant for 9 days to conduct a DQA in 17 districts	MoHSS-EPID	WHO CDC	IDSR Guideline,	126360	1			1		252 720	DQA conducte	By December 2025, 80% of potential	Yearly	DQA Report

			HIRD Annual plan							d in 17 districts	PHEIC are reported to WHO, FAO and OIE within 24 hrs		
Conduct a 7 days field visit for DQA National, regional and driver of 7 days	MoHSS-EPID	WHO CDC	IDSR Guideline, HIRD Annual plan	12852	1			1		25 704	DQA conducted in 17 districts	By December 2025, 80% of potential PHEIC are reported to WHO, FAO and OIE within 24 hrs	Yearly	DQA Report
Conduct meeting to evelop a data quality improvement plan	MoHSS-EPID	WHO CDC	IDSR Guideline, HIRD Annual plan	No cost	1			1		No cost	Data Quality Improvement Plan developed	By December 2025, 80% of potential PHEIC are reported to WHO, FAO and OIE within 24 hrs	Yearly	Meeting reports, attendance register
Recruit an international consultant for 14 days to conduct an external surveillance review and share recommendations	MoHSS-EPID	WHO	IDSR Guideline, HIRD Annual plan	1445080		1				1445080	External review conducted in all identified districts	By December 2025, 80% of potential PHEIC are reported to WHO, FAO and OIE within 24 hrs	yearly	Consultant report
Organize a 14 days field visits to conduct an external surveillance review and share	MoHSS-EPID	WHO	IDSR Guideline,	25704		1				25704	External review conducte	By December 2025, 80% of potential	Yearly	Review Report

recommendations, with 7 teams consisting of 1 intl consultant, 1 national and 1 regional member and one driver			HIRD Annual plan								d in all identified districts	PHEIC are reported to WHO, FAO and OIE within 24 hrs		
conduct a refresher/orientation of all IHR focal point members and stakeholders to ensure functionality and efficiency (50 participants 48 from regions, 3 days training)	MoHSS-EPID	WHO	IHR Documents, HIRD Annual plan	420660		1				420660	Number of staff oriented on IHR and TOR	By December 2025, 80% of potential PHEICs are reported to WHO, FAO and OIE within 24 hrs	Yearly	Meeting report, Attendance register
Standardise the reporting tools at lower level and national level and integrate it in DHIS 2 to reduce workload for end users														
Integrate weekly IDSR Report into the existing Web based DHIS2 to maintain and strengthen the existing surveillance reporting with the electronic reporting tools	MoHSS-EPID	WHO CDC	NIPH	No cost	1	1	1	1	1	No cost	Weekly IDSR Reporting tool integrated into DHIS2	By December 2025, 80% of potential PHEIC are reported to WHO, FAO and OIE within 24 hrs	Monthly	DHIS 2 Website, IDSR weekly reporting form
Establish cross access to the MAWF web-based database with MoHSS to share information														
Recruit an international consultant for 20 days to establish the interoperable system to share relevant information between MOHSS, MAWF, and Laboratories (including private labs)	MoHSS-EPID	WHO CDC	NIPH, HIS	252200	1					252200	Interoperability of the information systems	By December 2025, 80% of potential PHEIC are reported to WHO, FAO	Yearly	Activity report, DHIS2 Website

											established	and OIE within 24 hrs		
Integrate reporting systems between ministries by facilitating interfaces among systems already in place, and using common communication channels.														
Conduct a meeting to orient the relevant staff and managers on the use and create accessibility of information to users	MoHSS-EPID	WHO CDC	NIPH, HIS	498120	1		1		1	1 494 360	Interoperability of the information systems established	By December 2025, 80% of potential PHEIC are reported to WHO, FAO and OIE within 24 hrs	Yearly	Meeting report, DHIS2 Website
Strengthen the national IHR focal point in order to coordinate PHEIC reporting in the country.														
conduct quarterly meetings for IHR Focal point to review and coordinate the PHEIC reporting system	MoHSS-EPID	WHO CDC	IHR	No cost	4	4	4	4	4	No cost	Quarterly meetings conducted	By December 2025, 80% of potential PHEIC are reported to WHO, FAO and OIE within 24 hrs	Quarterly	Meeting minutes

11.Workforce development

					Year of implementation						Monitoring and evaluation			
Key activities	Lead Agency	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure(monthly, quarterly, six monthly, annually)	Source of verification
Objective 1	Support the development and finalization of the National Human Resources for Health Strategic Plan,2020-2030, (HRHSP) by March 2021													
Conduct an orientation to stakeholders involved in the HRHSP development														
Establish Ta technical working group and Draft TOR	MoHS S-HRD	Intra Health	Situational analysis on human resource for health	No cost	1					No cost	TWG Established and TOR drafted	By March 2021, the National Human Resources for Health strategic plan 2020-2030 available	Monthly	TOR, Minutes for the TWG meetings
Conduct a stakeholders meeting for 5 days with 30 participants to sensitize on the importance of HRHSP	MoHS S-HRD	Intra-Health		295194		1				295194	Stakeholders sensitized	By March 2022, the National Human Resources for Health strategic plan 2020-	Six monthly	Meeting report

												2030 available		
Development and finalize the HRHSP														
Recruit an international consultant for 30 days to support the development of the HRHSP	MoHS S-HRD	Intra Health		362040		1				362040	HRHSP developed	By March 2022, the National Human Resources for Health strategic plan 2020-2030 available	Six monthly	Consultant TOR and report
Develop the Implementation plan for HRHSP														
Recruit an international consultant for 30 days to support the development of the implementation plan of the HRHSP	MoHS S-HRD	Intra Health		362040		1				362040	HRHSP Implementation plan	By March 2022, the National Human Resources for Health strategic plan 2020-2030 available	Six monthly	Consultant Tor and report
Hold a validation workshop for the HRHSP														
Conduct a 5 days stakeholders Meeting with 30 participants (13 resident)	MoHS S-HRD	Intra-Health		132168		1				132168	HRHSP validated	By March 2022, the National Human Resources	Six monthly	Meeting report, attendance register

												for Health strategic plan 2020-2030 available		
Objective 2	**Create positions for epidemiologists and other public health staff in the organogram and scale up the restructuring process in the MOHSS to improve the human resource capacity especially at the district level and POEs by the December 2025**													
Budget in the workplan the newly approved positions for the Epidemiologists and other Public Health Officials														
Create 8 new positions: Epidemiologists, Public Health officials	MoHSS-HIRD	WHO, CDC, UNDP	HIRD-Annual plan	1766624	1	1	1	1	1	8 833 120	8 new positions created	By December 2025, required positions filled	Quaterly	Organogram
Objective 3	**Combine the resources of staff and graduates of the FELTP with those of UNAM to maximize expertise for training, research, and mentoring in public health by December 2025**													
Train staff members for the Short term programme for FELTP														
Conduct 3 workshops to train 25 staffs for short term training in FETP	MoHSS/ EPID	WHO CDC	FELTP Strategic plan	1315500	25	25	25	25	25	164 437 500	25 staff trained	By December 2025, more staff trained in FETP	yearly	Training report, scientific presentation reports, certificate issued

Train staff members for the Intermediate level program for FELTP													
Send 25 staff per year in South Africa for 1 year for training in the FETP intermediate program	MoHSS/ EPID	WHO CDC NSFAF	FELTP Strategic plan	22000	20	25	25	25	25	2 530 000	25 staff trained per year	By December 2025, more staff trained in FETP	yearly	certificate issued
Train staff members for the long-term (2yr) training programme year 1													
Send 10 staff in South Africa for the 1st year of the training in long term FETP	MoHSS /EPID	WHO CDC NSFAF	FELTP Strategic plan	1117320	1	1	1	1	1	5 586 600	10 staff trained	By December 2025, more staff trained in FETP	yearly	certificate issued
Send staff members for the long-term (2yr) training programme year 2													
Send 10 staff in South Africa for the 2nd year of the training in long term FETP	MoHSS/EPID	WHO CDC NSFAF	FELTP Strategic plan	2535200		1	1	1	1	10 140 800	10 staff trained	By December 2025, more staff trained in FETP	yearly	certificate issued
Advocate for the sustainability of the FELTP after donor funding ends													
Advocate for continued funding for FELTP	MoHSS, EPID		FELTP Strategic plan	No cost	1	1	1	1	1	No cost	Advocacy conducted	By December 2025, more staff trained in FETP	yearly	Enrolment register

RESPOND

12.Preparedness

					Year of implementation						Monitoring and evaluation			
Key activities	Lead Agency	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually)	Source of verification
Objective 1	**Update and implement a multi-hazards NHEPRP at all levels by December 2025**													
Review, update and disseminate multi-hazard NHEPRP														
Conduct a 5 days workshop with stakeholders (20 regional participants) to develop the multi hazards plan	MoHSS	WHO,		262960	1					262 960	multi-hazard draft plan developed	By December 2025, multi hazards plan implemented	annually	Report, attendance register
Recruit an international consultant for 7 days to facilitate development plan workshop		WHO		103480	1					103 480	multi-hazard draft plan developed	By December 2025, multi hazards plan implemented	Annually	Consultant TOR and report

Launch the multi hazards plan	MoHSS	WHO		No cost	1					No cost	Launch multi-hazard NHEPRP	By December 2025, multi hazards plan implemented	Annually	Launch report
Use the One Health approach in the development of the multi hazards plan	MoHSS/ MAWF	IOE/WHO		No cost	1					No cost	One Health approach used in the NHEPRP Plan	By December 2025, multi hazards plan implemented	Annually	Launch report
Conduct 2 table top simulation exercise of the national multi hazards plan	MoHSS	MoD/CoW		248080	2	2	2	2	2	2 480 800	2 table top Simex conducted per year	By December 2025, multi hazards plan implemented	Annually	Simex Reports
Conduct 1 functional simulation exercise of the national multi hazards plan once a year	MoHSS	MoD/CoW		TBD	1	1	1	1	1	TBD	1 functionnal Simex conducted per year	By December 2025, multi hazards plan implemented	Annually	Simex Reports
Objective 2	To define the country's risk and hazards profile by December 2022													
Develop a more comprehensive list of all potential health risks														
Conduct a 5 days workshop with 20 participants to assess risk and map out potential hazards in the country	MoHSS	NSA NCRST WHO		262960	1	1	1			262960	Hazard maps produced	By December 2023 country risk profile defined	Yearly	Workshop report, attendance register
Conduct a 1 day multi-sectoral meeting to consolidate reports/documents	MoHSS	WHO		No cost	1	1	1			No cost	Consolidated list of all health risks	By December 2023 country risk profile defined	Annually	Meeting report, attendance register

Conduct a meeting to assess and map human, logistics and financial resources, and develop inventory	MoHSS	WHO,		No cost	1	1	1			No cost	Resources inventory map	By December 2023 country risk profile defined	Annually	Meeting report, attendance register
Conduct an annual 2 days workshop with 20 stakeholders to update the country risk profile	MoHSS	WHO,		124720	1	1	1	1	1	623 600	Updated risk profile	By December 2023 country risk profile defined	Annually	Meeting report, attendance register

13.Emergency Response Operations

					Year of implementation						Monitoring and Evaluation			
Key activities	Lead Agency	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually)	Source of verification
Objective 1	**To have hazard specific SOPs and guideline to activate the PHEOC by December 2025**													
Develop hazard specific SOPs and guidelines														
Conduct a 3 days meeting with 20 stakeholders to develop the PHEOC guidelines and SOPs	MoHSS	CDC WHO	IHR NHERP IAPHI NDRM plan	171600	1	1	1			171600	PHEOC SOPs and guidelines developed	SOPs and guidelines to activate PHEOC available by December 2023	Annually	Report, attendance register
Hire an international consultant for 5 days to support the development of the PHEOC guidelines and SOPs	MoHSS	CDC/ WHO	IHR NHERP IAPHI NDRM plan	80600	1	1	1			80600	PHEOC SOPs and guidelines developed	SOPs and guidelines to activate PHEOC available by December 2023	Annually	Consultant TOR and report

Objective 2	Establish a functional management system for the management of the public Health Emergency Operation Center by December 2025												
Nominate 10 multi-sectoral staff with clear roles and responsibilities to manage the PHEOC	MoHSS	MAWF NIP MoHSS	IHR NHERP IAPHI NDRM plan	No cost	1					No cost	10 multi sectoral staff	By December 2021 a functional management system established for the PHEOC	Quarterly	Appointment letters
Conduct a 2 day workshop to train the 10 appointed PHEOC staff in emergency management and	MoHSS	WHO CDC		62960	1					62960	10 PHEOC Staff trained	By December 2021 a functional management system established for the PHEOC	Annually	Training modules, report, attendance register
Hire 2 national Consultants for 12 days to draft the PHEOC guidelines and SOPs including procedures for Incident Management Structure	MoHSS	WHO CDC		120680	1					120680	PHOEC SOPs developed	By December 2021 a functional management system established for the PHEOC	Annually	Activity Report, attendance register
Conduct a 5 days workshop to train 50 first responders in different potential hazards	MoHSS	WHO CDC		599020	1					599020	50 First responders trained on various potential hazards' SOPs and guidelines	By December 2021 a functional management system established for the PHEOC	Annually	Training report, Attendance list

Conduct a 1 day meeting with 75 participants to validate PHEOC SOPs and guidelines	MoHSS	WHO CDC		158790	1				158790	PHEOC SOPs validated	By December 2021 a functional management system established for the PHEOC	Quarterly	Meeting minutes, Attendance register
Objective 3	**To have a legal framework for the establishment of the public health EOC by December 2025**												
Approve public health emergency operation centre legal framework													
Develop a concept note to OPM to serve as a commanding agency for PHEOC as a Type B Structure	MoHSS	WHO CDC		No cost	1				No cost	Concept note developed	By PHEOC legal framework available	Quarterly	Complete concept note
Prepare a Cabinet submission for financial resource allocation for the PHEOC	MoHSS	WHO CDC		No cost	1				No cost	Cabinet submission prepared	By PHEOC legal framework available	Quarterly	Approval letter
Procurement of tools and equipment, refurbishing of center, computers, laptops, monitors, PA system, emergency vehicles for the PHEOC	MoHSS	WHO CDC		15815000	1				15 815 000	Equipment procured	By PHEOC legal framework available	Quarterly	Invoice, Inventory list
Appoint a staff member to serve as Public Health Emergency Manager	MoHSS	WHO CDC		503000	1	1	1	1	2 515 000	1 EOC Manager recruited	By PHEOC legal framework available	Quarterly	Appointment letter
Provide a 2 days in-service training for the 10 staff operating at the PHEOC	MoHSS	WHO CDC		62960	2	2	2	2	629 600	10 EOC Staff trained	By PHEOC legal framework available	Quarterly	Training report/attend ance register
Objective 4	**Establish an operational framework for the full functioning of the PHEOC by December 2025**												
Develop SOPs for the management of different hazards													
Hire an international consultant for 45 days to integrate existing Operational Response Plans and	MoHSS	WHO CDC		538200	1				538200	SOPs for manageme nt of	By December 2025, a	Quarterly	Consultant TOR and report

develop SOPs for management of different hazards											different hazards developed	PHEOC operational framework in place		
Hire 1 national consultant for 45 days to work with the international consultant on the development of SOPs for management of different hazards	MoHSS	WHO		271530	1					271530	SOPs for management of different hazards developed	Develop SOPs for the management of different hazards	Quarterly	Consultant TOR and report
Conduct a 1 day meeting with 75 participants for the validation of SOPs for management of different hazards	MoHSS	WHO CDC		108750	1					108750	SOPs for management of different hazards validated	By December 2025, a PHEOC operational framework in place	Quarterly	Report and attendance register
Print 500 copies of SOPs for management of different hazards	MoHSS, CDC	WHO		125000	1					125000	500 copied SOPs printed	Develop SOPs for the management of different hazards	Quarterly	copies of SOPs for management of different hazards
Objective 4	**To have a formal framework to guide case management for specific IHR hazards by December 2025**													
Develop case management SOPs and guidelines for specific IHR hazards														
Conduct a 4 days meeting on risk mapping with experts for IHR priorities hazards (chemical, nuclear, zoonotic and food safety)	MoHSS	WHO CDC		67212	1					67 212	Risk mapping done	By December 2025, Case management framework in place	Quarterly	Report, attendance register, Case management guidelines
Conduct a meeting to develop guidelines and SOPs to manage public health emergencies including referral and transportation, quarantine and isolation	MoHSS	WHO CDC		No cost						No cost	Case management SOPs and guidelines developed	By December 2025, Case management framework in place	Quarterly	Meeting report, attendance register

14. Linking Public Health and Security Authorities

					Year of implementation						Monitoring and Evaluation			
Key activities	Lead Agency/ Budget line holder	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually)	Source of verification
Objective	**Establish a functional multi-sectoral response including the capacity to link public health, animal health, environmental health and law enforcement authorities by March 2023**													
Review MOUs between O/M/As and incorporate public health sector and other related law enforcement authorities														
Conduct a 2 days meeting with stakeholders to review existing MOUs between MoHSS, MAWF, MET and law enforcement authorities	MoHSS	WHO		24000	1					24 000	Existing MOUs between lines ministries reviewed	By March 2023, MoU between public health, animal health, environmental health and law enforcement established	Quarterly	Report, attendance register
Endorsement of the revised MoU by the relevant authorities	MoHSS (ED)	WHO		No cost	1					No cost	MoU endorsed	By March 2023, MoU between public health, animal health, environmental health and law enforcement established	Quarterly	Signed MoUs

Reproduction of 100 copies of the revised multisectoral MoU	MoHSS			5000	1					5 000	100 copies of MoU printed	By March 2023, MoU between public health, animal health, environmental health and law enforcement established	Quarterly	MoUs
Conduct a 1 day orientation meeting with 75 participants from the 14 Regions to sensitize on the content of the MoU	MoHSS, MoD, MSS	WHO,		148278	1					148 278	75 people sensitized on MoUs	By March 2023, MoU between public health, animal health, environmental health and law enforcement established	Quarterly	Training report, Attendance register
Conduct 1 table top simulation exercise per year to test the operationality of the MoU	MoHSS	WHO, MoD, CDC		279560	1	1	1	1	1	1 397 800	One simulation exercise conducted	By March 2023, MoU between public health, animal health, environmental health and law enforcement established	Annually	Report, Attendance register

15.Medical Countermeasures and Personnel Deployment

					Year of implementation						Monitiring and Evalauation			
Key activities	Lead Agency/ Budget line holder	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually)	Source of verification
Objective 1	**To establish a national protocol for Medical Countermeasure (MCM) during public health emergencies by December 2025**													
Develop a national plan for deploying and receiving medical countermeasures during public health emergencies														
Conduct a 5 days workshop with 15 stakeholders to draft a plan and SOPs for medical countermeasures during public health emergencies	MoHSS	WHO, CDC		109650	1					109 650	MCM plan and SOPs developed.	By December 2025, a national protocol for MCM in place	Quarterly	Report, Minutes Attendance list
Hire 1 national consultant 7 working days to support the development of the MCM plan and SOP	MoHSS			42238	1					42 238	MCM plan and SOPs developed.	By December 2025, a national protocol for MCM in place	Quarterly	Report, Minutes Attendance list
Conduct a 1 day meeting with 75 relevant authorities to validate and endorse the MCM plan	MoHSS	CDC WHO		171300	1					171 300	Medical countermeasure plan endorsed by 75 participants.	By December 2025, a national protocol for MCM in place	Quarterly	Report, Minutes Attendance list
Conduct 1 table top exercise per year to test the MCM plan and SOP (30 participants, 2 days)	MoHSS	CDC WHO		172200	1	1	1	1	1	861 000	Table top Simex conducted	By December 2025, a national	Quarterly	Report, Attendance list

												protocol for MCM in place		
Review MOUs and supplier agreement for medical stock	MoHSS	WHO		No cost	1					No cost	Medical stock supplier agreement and MOUs revised	By December 2025, a national protocol for MCM in place	Quarterly	Reviewed MoU signed
Objective 2	**To establish a national protocol for personnel deployment during emergencies national protocols by December 2025**													
Develop a national plan for deploying and receiving medical personnel during emergencies														
Hire an international consultant for 15 days to support the development of guidelines and legal framework of receiving and sending personnel during emergencies	MoHSS	WHO		195000	1					195 000	Guidelines and legal framework of sending and receiving personnel developed	By December 2025, a National protocol for personnel deployment in place	Quarterly	Consultant TOR and Report
Hire a national legal consultant for 30 days to develop guidelines and legal framework of receiving and sending medical personnel during emergencies	MoHSS	WHO		181020	1					181 020	Guidelines and legal framework of sending and receiving personnel developed	By December 2025, a National protocol for personnel deployment in place	Quarterly	Consultant TOR and Report
Conduct a 5 days workshop with 25 stakeholders to develop a plan for deployment and receiving personnel during emergencies	MoHSS	WHO		328700	1					328 700	Personnel deployment and receiving plan developed.	By December 2025, a National protocol for personnel deployment in place	Quarterly	Report Attendance list

Reproduction of 200 copies of personnel deployment and receiving plan	MoHSS	WHO		50000	1					50 000	200 copies Framework for personnel deployment and receiving disseminated	By December 2025, a National protocol for personnel deployment in place	Quarterly	Distribution sheet/list
Conduct a 1 day training meeting with 75 participants from 14 regions to disseminate the plan for deployment and receiving personnel during emergencies	MoHSS	WHO		148278	1					148 278	75 participants sensitized on the plan	By December 2025, a National protocol for personnel deployment in place	Annually	Attendance list report
Designate members of the rapid response team and Obtain WHO and Namibian accreditation for RRT	MoHSS	WHO		No cost		1				No cost	RRT team memebers designated and accredited by WHO.	By December 2025, a National protocol for personnel deployment in place	Annually	RRT database
Data base migration and data base development	MoHSS	CDC, WHO		1400000		1				1 400 000	RRT team data base developed	By December 2025, a National protocol for personnel deployment in place	Annually	Database
Training of 5 database managers for 3 days	MoHSS	CDC, WHO		Cost covered in database tender			1			Cost covered in database tender	5 database managers trained	By December 2025, a National	Annually	Attendance register

											protocol for personnel deployment in place			

16.Risk Communication

					Year of implementation						Monitoring and Evaluation			
Key activities	Lead Agency	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually)	Source of verification
Objective 1	**To establish a risk communication system to efficiently and effectively respond to public health emergencies by December 2025**													
Develop multi-hazard/multisectoral risk communication plan														
Conduct a 5 days workshop with 25 participants to develop the multi-sectoral risk communication section to be integrated in the multi-hazard preparedness and response plan	MoHSS	WHO, CDC		328700	1					328 700	Risk communication section developed in the multi-hazard plan	Risk communication system in place by December 2025	Annually	Report Attendance list
Hire a national consultant for 7 days to develop a multi-sectoral risk communication section in the multi-hazard preparedness and response plan	MoHSS	WHO/CDC		42238	1					42 238	Risk communication section developed in the multi-hazard plan	Risk communication system in place by December 2025	Annually	Consultant report and ToR Multi-hazard plan
Hire a national consultant for 30 days to develop SOPs on risk communication during emergencies	MoHSS	WHO, CDC		181020	1					181 020	Plans, SOP on Risk communicati	Risk communication system in	Annually	Attendance list Report

											on developed	place by December 2025		
Establish a dedicated core team responsible for risk communication during emergencies	MoHSS	WHO, CDC		No cost	1					No cost	Risk Communication team commissioned	Risk communication system in place by December 2025	Annually	List of commisioned team
Conduct 1 Table top simulation exercise to test the communication system	MoHSS	CDC, WHO		157400	1	1	1	1	1	787 000	1 Table top simulation exercise conducted	Risk communication system in place by December 2025	Annually	Report Attendance list
Objective 2	**To establish a collaboration and co-ordination mechanism among stakeholders by December 2025**													
Develop a multi-sectoral communication strategy and advocate for increased budget														
Mapping of risk communication stakeholders to establish the database	MoHSS	WHO		No cost	1						Risk Communication stakeholder mapping available	Coordination and collaboration mechanism in place by December 2025	Bi-annually	Stakeholder database
Conduct a 5 days workshop with 25 stakeholders to develop a risk communication strategy	MoHSS	WHO		328700	1					328700	Risk communication strategy available	Coordination and collaboration mechanism in place by December 2025	Quarterly	Report Attendance list

Conduct quarterly risk communication coordination meetings with all stakeholders	MoHSS	WHO		No cost	4	4	4	4	4	No cost	4 coordination meetings conducted per year	Coordination and collaboration mechanism in place by December 2025	Quarterly	Minutes of the meeting
Objective 3	**To develop different strategies for public communication by December 2025**													
Continuously engage different media platforms and develop IEC materials and messages proactively throughout all medium.														
Conduct 5 days field visits with 4 participants to organize quarterly meetings with different media houses to share public health information (Media tour in the affected communities)	MoHSS	WHO		64680	1	1	1	1	1	323 400	Different media platforms indentified and information shared	By December 2025 strategies for public communication developed	Bi-annually	Minutes, Attendance list,
Conduct media survey through 14 days field visits with 10 enumerators to determine message reach among target audience and determine the best method to reach different audience	MoHSS	WHO		172620	1					172 620	% of population reached by messages and best communication method identified	By December 2025 strategies for public communication developed	Annually	Survey report
Public validation meeting 1 day 75 participants PLUS newspaper advertisement 20000 NAD	MoHSS	WHO		175800	1					175 800	Communication methods Validated	By December 2025 strategies for public communication developed	Annually	Report Attendance list
Findings of the surveys to be used to plan and implement best risk communication methods	MoHSS			No cost	1	1	1	1	1	No cost	Media survey findings to	By December 2025	Annually	Survey report

											be incorporated in the implementation	strategies for public communication developed		
Objective 4	**Design and implement effective social and behaviour change communication interventions to build resilience among affected community by December 2025**													
Develop interventions to address behavior change communication for affected community.														
Map out communication stakeholders at all levels	MoHSS	WHO		No cost	1						Stakeholders map available	Best communication interventions indentified by December 2025	Annually	List of risk communication stakeholders
Conduct a training of 30 stakeholders for 5 days with 5 facilitators, on risk communication in the community in all the regions	MoHSS			6442520	**0,5**	**0,5**				6 442 520	30 stakeholders trained on Risk communication in the community	Best communication interventions indentified by December 2025	Annually	Report and attendance list of participants
Appointment of 14 regional IEC focal positions at sub-national levels	MoHSS	WHO		No cost		1				No cost	14 IEC focal persons available in all regions	Best communication interventions indentified by December 2025	Yearly	List of IEC focal personnel at sub-national level

Capacity building and monitoring and evaluation of focal points in the affected communities														
Conduct 14 supervisory visits and monitoring of focal points (in affected communities)				61770	5	5	5	5	5	1 544 250	14 Supervisory visits conducted per year	Best communication interventions indentified by December 2025	Annually	Reports
Conduct a meeting to develop SOPs on development of IEC materials	MoHSS	WHO		No cost	1					No cost	SOPs on development of IEC materials available	Best communication interventions indentified by December 2025	Bi-annually	Report Attendance list
To sensitize affected communities on possible risks and hazards														
Conduct quarterly community meetings during public health emergencies	MoHSS	WHO		31480	1					31 480	Quarterly community engagement meetings held	Best communication interventions indentified by December 2025	Quarterly	Minutes of the meetings
Use different media platforms appropriate to affected community	MoHSS	WHO		No cost	1	1	1	1	1	No cost	Appropriate media platforms used during emergencies	Best communication interventions indentified by	Quarterly	Assessment report on media used

												December 2025		
Establish system for systematically gathering misinformation and using information for shaping response														
Conduct a 5 days workshop with 25 stakeholder to design the system and SOPs for gathering and listening to rumors	MoHSS - PHC	WHO		328700	1					328 700	SOPs forgathering and listening to rumour available	Best communication interventions indentified by December 2025	Monthly	Reports Attendance list
Formally designate PRO to manage rumors during public health emergencies	MoHSS - PHC	WHO		No cost	1					No cost	Designated PRO available	Best communication interventions indentified by December 2025	Monthly	Appointment letter.
Conduct assessment to evaluate the response and the ability to address rumors and misinformation	MoHSS - PHC	WHO		150000	1					150 000	Response and ability to address rumors and misinformation assessed	Best communication interventions indentified by December 2025	Quarterly	Assessment Report

OTHER IHR HAZARDS & PoE

17.Points of Entry (PoE)

					Year of implementation						Monitoring and Evaluation			
Key activities	Lead Agency/ Budget line holder	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually)	Source of verification
Objective 1	To establish IHR core capacities in order to implement specific public measures required to manage public health risks by 2025.													
Strengthen IHR core capacities, including detection, isolation, coordination, communication and capacity building at the 11 priority PoEs in Namibia														
Detection. Procure thermal scanners for the 11 priority PoEs.	MoHSS (PHC, DIRI)	WHO UNDP	Proposed additional personnel & salary structure recommended by MoHSS	TBD	1					TBD	11 scanners available for each PoE	Core capacities established at PoEs by 2025	Every 6 months	Physical verification at PoEs, Invoice
Recruit 30 Port health officers (Walvis Bay = 8, Windhoek = 8 Luderitz = 4, Ariamsvlei = 4, Oshikango = 8, Ngoma = 4, Wenela = 1, Katwitwi = 1, Noordoewer = 3 Buitepos = 3, Ondangwa = 0) 18 Agriculture technicians, inspectors, and Senior)	MoHSS (PHC)	WHO UNDP SOEs	Staff Establishment Plan	9266747	1	1	1	1	1	46 333 735	30 Port Health Officers recruited	Core capacities established at PoEs by 2025	Yearly	Employment contracts of Port Health Officers
Construct holding facilities at the 11 PoEs and the provision of all relevant equipments (PPE, Equipment, building,	MoHSS (Planning)	NAC, Customs, NAMPORT,	Ports Master Plans, MoHSS Strategic Plan	4360000		1				4 360 000	Holding facilities constructed	Core capacities established	Annually	Physical Building/Room

Transportation - number of ambulance).		WHO, Ministry of Works									at PoEs by 2025		
Coordination & Communication at prioritized PoEs. Conduct a 5-day Stakeholder consultative meetings/workshops with 55 participants (35 regional)	MoHSS	WHO, UNDP, Port Authorities	National Port Health Strategy	606380	1					606 380	Consultative Meetings completed	Core capacities established at PoEs by 2025	Annually	Attendance Register
Coordination & Communication at prioritized PoEs. Conduct a consultative 1 day meeting/workshop twice a year with all relevant stakeholders at National level	MoHSS	WHO, UNDP, Port Authorities	National Port Health Strategy	334640	1	1	1	1	1	1 673 200	Consultative Meetings completed	Core capacities established at PoEs by 2025	Annually	Attendance Register
Establish social media platform (WhatsApp) with all stakeholders for communication and information sharing amongst the 11 PoEs	MoHSS (PHC, Port Health)	WHO, NAMPORT, NAC	National Port Health Strategy	No cost	1	1	1	1	1	No cost	WhatApp Group established	Core capacities established at PoEs by 2025	Quarterly	Communication log
Capacity building. Conduct in service training of staff of the 11 PoEs on detection, isolation, coordination and communication.	MoHSS (PHC, Port Health)	WHO, NAMPORT, NAC	National Port Health Strategy	No cost	1	1	1	1	1	No cost	In-house training conducted	Core capacities established at PoEs by 2025	Quarterly	Training records (attendance)
Monitoring and evaluation. Conduct Supportive supervision visits for 5 days with 2 teams of 4 supervisors twice a year	MoHSS (PHC, Port Health)	WHO, NAMPORT, NAC	National Port Health Strategy	132720	2	2	2	2	2	1 327 200	2 supportive visits conducted to Identified PoEs	Core capacities established at PoEs by 2025	Every 6 months	Records of visits to PoEs (Report)

Objective 2	Determine the risk profile at the 11 PoEs to strengthen preparedness and response capacity to public health events at the designated PoEs by December 2025													
Build models for developing IHR plans at ground PoEs by using the existing excellent Port Health Services system at Walvis Bay														
Conduct consultative meeting/workshops of all relevant stakeholders to update the emergency plan at PoEs to integrate public health risk and hazards	MoHSS (PHC, Port Health)	WHO NAC NAMPO RT	National Port Health Strategy	279560	1					279560	Consultative Workshop completed	Risk profile determined at designated PoEs by December 2025	Annually	Workshop Attendance register
Conduct an inception meeting to develop terms of references and scope of the risk assessment process	MoHSS (PHC, Port Health)	WHO NAC NAMPO RT	National Port Health Strategy	No ccost	1					No cost	ToR developed	Risk profile determined at designated PoEs by December 2025	Quarterly	Workshop Attendance register
Conduct multi sectoral field visits for 30 days for risk assessment aiming at determining the major potential hazards at each PoEs.	MoHSS (PHC, Port Health)	WHO NAC NAMPO RT	National Port Health Strategy	362040	1					362040	Risk Assessment completed	Risk profile determined at designated PoEs by December 2025	Quarterly	Risk Assessment Reports
Conduct a 1 day workshop with 70 participants for the validation of the risk profile at the assessed PoE	MoHSS (PHC, Port Health)	WHO NAC NAMPO RT	National Port Health Strategy	182800	1					182800	National Workshop completed	Risk profile determined at designated PoEs by December 2025	Annually	Attendance Register

Objective 3	Establish a functional inter sectoral collaboration mechanism with all stakeholders involved in public health responses at all major PoEs by December 2025												
Create and strengthen inter sectoral collaboration with all relevant Stakeholders													
Map key stakeholders and establish MoUs for inter sectoral collaboration in a 1 day consultative meeting for 55 participants	MoHSS (PHC, Port Health, Attorney General)	WHO NAC NAMPORT, line ministries	National Port Health Strategy	170620	1	1	1	1	1	853 100	MOU signed	By December 2025, a functional inter sectoral collaboration established at priority PoEs	Annually	Signed MOUs
Conduct a 5 days workshop with 55 participants to develop a harmonized SOPs on inter sectoral collaborations,	MoHSS (PHC, Port Health)	WHO NAC NAMPORT, Line Ministries	National Port Health Strategy	606380		1				606 380	SOPs updated and harmonised	By December 2025, a functional inter sectoral collaboration established at priority PoEs	Annually	Attendance Register
Conduct a 5 days TOT with 14 participants on harmonized SOPs	MoHSS (PHC, Port Health)	WHO NAC NAMPORT, Line Ministries	National Port Health Strategy	184072			1			184 072	TOT workshop conducted	By December 2025, a functional inter sectoral collaboration established at priority PoEs	Annually	Attendance Register, Report of Workshop

Chemical events

					Year of implementation						Monitoring and Evaluation			
Key activities	Lead Agency/ Budget line holder	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually)	Source of verification
Objective	**Establish a surveillance system for chemical risk or events, with effective communication and collaboration among the sectors responsible for chemical safety, industries, transportation and safety disposal by December 2025.**													
Establish and institutionalize a poison centre														
Hire an international consultant for 30 days to establish a poison centre and develop a chemical events plan: 1. Conduct a task resource analysis. 2. Benchmarking within SADC. 3. Technical specifications of the facility	MET	WHO	Emergency Preparedness and Response Plan	366600	1					366 600	Poison center established	By December 2025, a surveillance system for chemical risks/events in place	Annually	Consultant report and ToR, Physical poison centre
Establish a Technical Working Group for chemical events surveillance and conduct quarterly meetings with 14 participants	MET	WHO UN-RC	National Chemicals Plan (TBA)	88144			1			88 144	Technical Working group established	By December 2025, a surveillance system for chemical risks/events in place	Quarterly	TWG list, meeting report, attendance register

Training of medical personnel (and support personnnel) on the handling, management and coordination of chemical incidents/events														
Conduct a 3-day workshop to train 55 medical personnel and support personnel on the case management of chemical event patients	MET	WHO UN-RC	National Chemical Response Plan	388500	1					388500	55 personnel trained	By December 2025, a surveillance system for chemical risks/events in place	Annually	Training Report, Attendance Register
Develop SOPs and institutionalize multisectoral assessments for the treatment of chemical incidents/events														
Conduct meeting to develop a harmonized SOPs for managing of chemical events	MET	WHO UN-RC	National Chemical Response Plan	No cost		1				No cost	Chemical events management SOPs	By December 2025, a surveillance system for chemical risks/events in place	Annually	Meeting report, attendance register
Perform regular controls and unannounced controls to maintain safe transportation of chemicals inside and outside enterprises.														
Conduct quarterly field visits with 3 supervisors for 5 days to implement an interlinked surveillance and tracking system	MET	WHO UN-RC	National Chemical Response Plan	61770	4	4	4	4	4	1 235 400	Surveillance tracking system implemented	By December 2025, a surveillance system for chemical risks/events in place	Annually	Tracking reports
Establish effective control permit system	MET	WHO UN-RC	National Chemical Response Plan	No cost	1	1	1	1	1	No cost	Permit implemented	By December 2025, a surveillance system for chemical risks/events in place	Annually	Permits
Inspection checklist and point 1 above Costs of visits for inspections	MET	WHO UN-RC	National Chemical Response Plan	No cost	1	1	1	1	1	No cost	Inspection Checklist implemented	By December 2025, a surveillance system for chemical	Annually	Checklists

												risks/events in place		
Conduct a 2 days meeting with 55 stakeholders (35 residents) to establish a competent multi sectoral inspectorate	MET	WHO UN-RC	National Chemical Response Plan	279560	1	1	1	1	1	1 397 800	Multi sectoral inspectorate established	By December 2025, a surveillance system for chemical risks/events in place	Annually	Reports and Structure of inspectorate
Develop a national programme for medical treatment of chemical incidents/events														
Establish a multi sectoral advisory committee in charge of developing the national programme for medical treatment of chemical incidents/events.	MoHSS	WHO UN-RC	National Chemical Response Plan	No cost			1			No cost	Multi sectoral advisory committee established	By December 2025, a surveillance system for chemical risks/events in place	Annually	Advisory committee Charter
Conduct a 2 days table top simulations exercises with 55 participants on chemical events every year	Ministry of Mines and Energy	WHO UN-RC	National Chemical Response Plan	279560	1	1	1	1	1	838 680	1 table top Simex completed every year	By December 2025, a surveillance system for chemical risks/events in place	Annually	Simulation Report and attendance register

18.Radiation Emergencies

					Year of implementation						Monitoring and Evaluation			
Key activities	Lead Agency/Budget line holder	Potential partners	Related existing plan/ framework/ programme or ongoing activities	Unit Cost	2021	2022	2023	2024	2025	Total cost	Output/ Process indicator	Outcome indicator	Frequency of measure (monthly, quarterly, six monthly, annually)	Source of verification
Objective	Establish a surveillance system for radionuclear hazards/events/emergencies with effective communication and collaboration among the sectors responsible for radionuclear management by 2025													
Strengthen the regulatory capacity and consider networking with other regulatory bodies between countries for the control of the import / export of radiation sources.														
Hire 1 international consultant for 10 days to orient on the Software requirements for control of imports and exports of radiation sources before acquisition.	MoHSS (Radiation Authority)	WHO UN-RC IAEA	National Single Window Project	137800	1					137 800	Orientation on software given	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	Annually	ToR of Consultant, report
Procure equipment (50 computers with licenses) for 55 Port Health Officers in 11 PoEs to establish an electronic platform to improve the control of imports and exports of radiation sources	MoHSS (Radiation Authority)	WHO UN-RC IAEA	National Single window Project	850000	1	0,11765	0,118	0,11765	0,1176	1 250 000	Trading platform established	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	Annually	Electronic platform available at all identified PoE
Conduct a 1 day meeting to train 20 Port Health Officers on the use of the electronic platform	MoHSS	WHO UN-RC IAEA	National Radiation Emergency Response Plan	66530	1					66 530	20 Port health officers trained	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	Annually	Training report, Attendance Register

Finalize the national radiological emergency preparedness and response plan and conduct drills.														
Conduct meetings to finalize the national radiological emergency preparedness and response plan	MoHSS (NRPA)	WHO UN-RC IAEA	NREPRP	No cost		1				No cost	Plan finalized	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	Annually	Meetings report, Attendance Register
Conduct a 2 day workshop with 40 participants to conduct 1 Table Top simulation exercise to test the national radiological emergency preparedness and response plan every year	MoHSS (NRPA)	WHO UN-RC IAEA	NREPRP	118400	1	1	1	1	1	592 000	Table top simulation conducted	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	Annually	Table Top simulation report
Conduct a drill with 40 participants to test the national radiological emergency preparedness and response plan every 2 years	MoHSS (NRPA)	WHO UN-RC IAEA Uranium Institute	NREPRP	No cost	1			1		No cost		By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	Annually	Drill report, attendance register
Integrate the National Radiological Emergency Response Plan (NREPRP) into the National Disaster Risk Management Plan (NDRMP) by December 2025.														
Conduct a 3 days workshop with 50 participants to incorporate the NREPRP into the NDRMP	MoHSS (NRPA)	WHO UN-RC IAEA	NREPRP Atomic Energy Act (5 of 2005), DRM Act	70500	1					70500	NREPRP incorporated into the NDRMP	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	Quarterly	Report and Attendance Register

Strengthen the advisory role of the Atomic Energy Board to control and manage regional and local authorities on matters relating to radiation safety and radiological emergencies.														
Revise the Atomic Energy Act to strengthen the Atomic Energy Board.	MoHSS (NRPA)	WHO UN-RC IAEA	Atomic Energy Act (5 of 2005)	No cost	1					No cost	Draft revised Act	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	6 monthly	Signed legal Act
Conduct a 2 days workshop with 20 participants to present changes in the Atomic Energy Act to stakeholders	MoHSS (NRPA)	WHO UN-RC IAEA	Atomic Energy Act (5 of 2005)	59200	1					59 200	Changes in the Act presented to stakeholders	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	6 monthly	Workshop report, attendance register
Conduct a 1 day meeting to publicly present the signed Atomic Energy Act to stakeholders	MoHSS (NRPA)	WHO UN-RC IAEA	Atomic Energy Act (5 of 2005)	108750	1					108 750	Public presentation of Atomic Energy Act	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	Annually	Attendance register, minutes of meeting
Assess the needs in terms of technical capabilities and develop risk assessment procedures, especially at PoEs to ensure control and monitoring of radiation sources.														
Hire 2 international consultants for 15 days to conduct a need assessment of PoEs capacities to control and monitor radiation sources and perform risk assessment	MoHSS (NRPA)	WHO UN-RC IAEA	Atomic Energy Act (5 of 2005)	200220		1				200 220	Needs Assessment and risk assessment completed	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	Quarterly	Technical Assistance Report
Conduct 15 days fields visit with 4 people and the international consultants to assess PoEs	MoHSS (NRPA)	WHO UN-RC IAEA	Atomic Energy Act (5 of 2005)	338040		1				338 040	Needs Assessment and risk	By December 2025, a surveillance	Annually	Field visits report

capacities to control and monitor radiation sources and perform risk assessment											assessment completed	system for radionuclear hazards/events /emergencies in place		
Conduct a 1 day workshop with 55 stakeholders to disseminate risk assessment and need assessment results	MoHSS (NRPA)	WHO UN-RC IAEA	Atomic Energy Act (5 of 2005)	173140		1				173 140	Needs Assessment and risk assessment results dissiminated	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	Annually	Attendance register, Meeting Minutes
Conduct a 2 days workshop with 47 port health officials for a training control and monitoring of radiation sources at PoEs.	MoHSS (NRPA)	WHO UN-RC IAEA	NRPA	295912		1				295 912	47 port health officials trained	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	Annually	Minutes of workshop and attendance register
Strengthen the regulatory infrastructure, especially the development of radiation emergency response and preparedness plans at all facilities and by all national institutions that are involved with radiation sources.														
Conduct a 2 day workshop with all entities dealing with radiation in the country and 8 officials to discuss on facilities and institution regulations	MoHSS (NRPA)	WHO UN-RC IAEA	NRPA	23680		1				23680	Regulation on facilities and institutions discussed	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	Annually	Minutes of workshop and attendance register
Support Facilities and institutions to develop and submit radiation emergency preparedness and response plans	MoHSS (NRPA)	WHO UN-RC IAEA	NRPA	No cost		1				No cost	Radiation emergency preparedness and response plans developed	By December 2025, a surveillance system for radionuclear hazards/events	Annually	List of facilities and institutions with radiation emergency

												/emergencies in place		preparedness and response plans
Conduct a 5 days capacity building workshop on First responders during radiation emergencies with 40 participants	MoHSS (NRPA)	WHO UN-RC IAEA	NRPA	467540		1				467540	40 First responders Trained	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	Annually	Attendance Registers of participants
Hire 1 national consultant for 5 days to conduct the training of First responders during radiation emergencies	MoHSS (NRPA)	WHO UN-RC IAEA	NRPA	30170		1				30170	Training conducted	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	Annually	Consultant ToR and report
Finalization of the National Radiological Response and Preparedness Plan														
Reproduction of 500 copies of the National Radiological Response and Preparedness Plan	MoHSS (NRPA)	WHO UN-RC IAEA	NRPA	475000	1					475000	500 Copies reproduced and distributed	By December 2025, a surveillance system for radionuclear hazards/events /emergencies in place	Annually	Invoice of reproduction

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