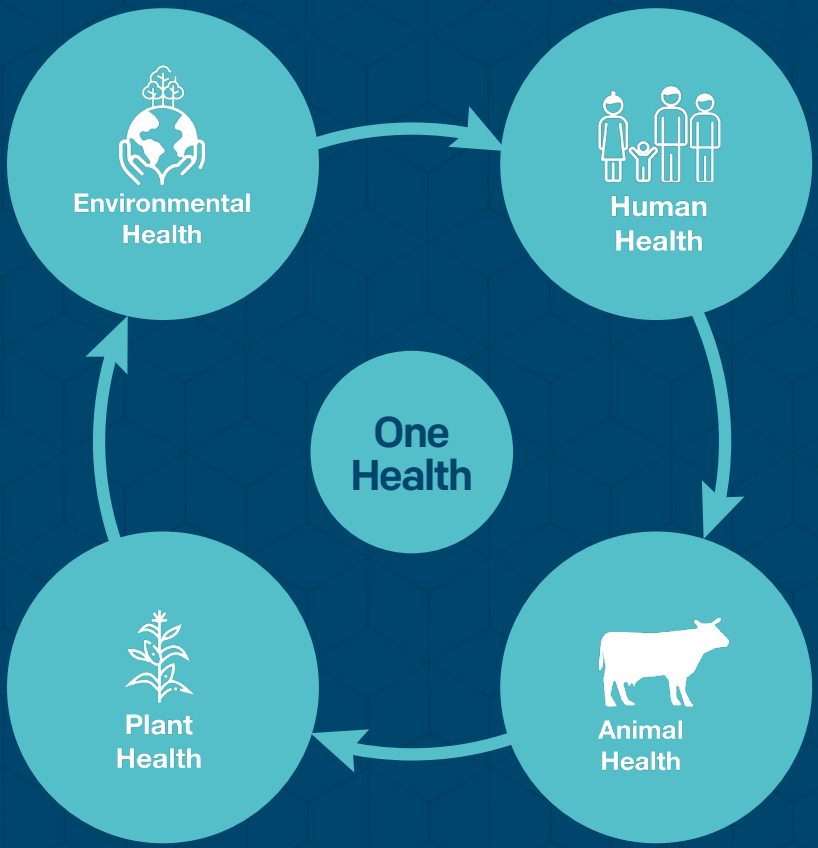
Federal Democratic Republic of Ethiopia

2025/26-2029/30

National One Health Five Year Strategic Plan



June 2025

Addis Ababa, Ethiopia

Federal Democratic Republic of Ethiopia

National One Health

Five-Year Strategic Plan
(2025/26-2029/30)

June 2025

Addis Ababa, Ethiopia

Contents

List of Tables iii

List of Figures iii

Abbreviations and Acronyms iv

Foreword v

Acknowledgement vi

Executive Summary vii

1. Introduction 1

1.1. Background 1

1.2. Rationale of the Strategic Plan 2

1.3. Country profile 3

1.4. Lessons from the First One Health Strategic Plan (2018-2022) 3

1.5. One Health Strategic Plan Development Process 4

2. Strategic Situational Assessment 5

2.1. One Health Coordination, Capacity, Surveillance and Research 5

2.2. Burden of Zoonotic Diseases 5

2.3. Food Safety 6

2.4. Antimicrobial Resistance (AMR) 7

2.5. Ecosystem Health and Climate Change 8

2.6. Risk Communication and Community Engagement 8

2.7. SWOT Analysis 11

3. Vision, Mission, and Core Values 13

3.1. Vision 13

3.2. Mission 13

3.3. Core Values 13

3.4. Guiding Principles 13

4. Theory of Change Model 15

5. Strategic Pillars of the One Health Strategic Plan 16

5.1. Pillar One: Enhancing One Health Governance, Coordination, Capacity, Surveillance, and Research 16

5.2. Pillar Two: Enhancing Preparedness, Detection, and Response to Zoonotic Diseases 19

5.3. Pillar Five: Food Safety Risk Management 22

5.4. Pillar Six: Prevention and Containment of Antimicrobial Resistance (AMR) through One Health Approach 25

5.5. Pillar Seven: Build Socio-Ecological Resilience for Optimal Health of Human, Animal, and Plant 29

5.6. Pillar Eight: Risk Communication and Community Engagement 31

6. Institutional Frameworks and Coordination Mechanisms 34

7. One Health Strategy Costing 36

8. One Health Strategy Monitoring and Evaluation Framework 38

9. Role and Responsibility of Sectors and Partners 40

10. Capacity Building Priority Areas 44

11. Priority National One Health Research Agenda 45

12. References 47

Annexes 50

Annex 1. One Health Strategy Result Matrix 50

Annex 2: Detail Activities 59

List of tables

Table 1.	SWOT Analysis, One Health Strategic Plan, Ethiopia, 2025	59
Table 2.	OH Coordination, research and surveillance strategic pillars, objectives, actions, and KPIs May 2025	17
Table 3.	Enhancing capacity zoonotic diseases strategic pillars, objectives, actions, and KPIs May 2025	20
Table 4.	Food safety strategy pillars, objectives, actions, and KPIs May 2025	23
Table 5.	AMR strategic pillars, objectives, actions, and KPIs May 2025	25
Table 6.	Socio-ecologic resilience strategic pillars, objectives, actions, and KPIs May 2025	30
Table 7.	RCCE strategic pillars, objectives, actions, and KPIs May 2025	32
Table 8.	Role and responsibility of sectors and partners, May 2025	40
Table 9.	National One Health priority capacity building needs, May 2025	44

List of figures

Figure 1.	One Health strategic plan core values, May 2025	13
Figure 2.	One Health Strategic Plan Theory of Change Model, May 2025.	15
Figure 3.	One Health coordination mechanism arrangement, May 2025	35
Figure 4.	One Health Strategy Costing, February 2025	37

Acronyms and Abbreviations

AHI	Animal Health Institute
AMR	Antimicrobial Resistance
AMU	Antimicrobial Use
CSA	Central Statistical Agency
EDRMC	Ethiopia Disaster Risk Management Commission
EFDA	Ethiopian Food and Drug Authority
EPA	Environmental Protection Authority
EPHI	Ethiopian Public Health Institute
EWCA	Ethiopia Wildlife Conservation Authority
FAO	Food and Agriculture Organization
GDP	Gross Domestic Product
IHR	International Health Regulation
IPC	Infection Prevention and Control
JPA	Joint Plan of Action
KPIs	Key Performance Indicators
M&E	Monitoring and Evaluation
MoA	Ministry of Agriculture
MoU	Memorandum of Understanding
NTD	Neglected Tropical Disease
OH	One Health
OHCO	One Health Coordination Office
OHS	One Health Secretariat
QPM	Quarterly Progress Monitoring
RCCE	Risk Communication and Community Engagement
SimEx	Simulation Exercise
ToT	Training of Trainers
UNEP	United Nations Environmental Program
VBDs	Vector-Borne Diseases
WHO	World Health Organization

Foreword

The health of humans, animals, plants, and the environment are deeply interconnected. Recognizing these linkages, Ethiopia has embraced the One Health approach as a national priority to safeguard the well-being of our people, protect our biodiversity, ensure food and nutrition security, and build resilience to emerging and re-emerging health threats. The National One Health Five-Year Strategic Plan (2025/26–2029/30) reflects our collective vision to address these interconnected challenges through coordinated, inclusive, and science-driven action.

This Strategic Plan reflects a shared national vision—crafted through broad consultation and collaboration with stakeholders from government, academia, research, civil society, and development partners. It builds on the achievements and lessons of the previous plan, setting out strategic priorities to strengthen capacity, governance, integrate surveillance systems, enhance preparedness and response, combat antimicrobial resistance, improve food safety, and promote climate-resilient and sustainable ecosystems. The plan is fully aligned with Ethiopia's national development strategies and global commitments, including the Quadripartite Joint Plan of Action, ensuring our contributions are impactful at both national and international levels.

Successful implementation will require unwavering commitment from all sectors, sustained investment, and active community participation. It calls for harmonized policies, shared data and expertise, and the application of innovation and research to inform evidence-based decisions. By working together across disciplines and sectors, we can anticipate, prevent, and respond more effectively to health threats while advancing sustainable development.

We, the key One Health sectors (Ministry of Health, Ministry of Agriculture, Environmental Protection Authority and Ethiopian Wildlife Conservation Authority, reaffirm our joint commitment to lead and support the implementation of this Strategic Plan. We call upon all stakeholders—government agencies, regional administrations, research institutions, development partners, and communities—to unite in making the One Health approach an integral part of Ethiopia's governance and development agenda. Together, we can create a healthier, safer, and more resilient Ethiopia for current and future generations.

Ministry of Health (MoH)

Ministry of Agriculture (MoA)

Environmental Protection Authority (EPA)

Ethiopian Wildlife Conservation Authority (EWCA)

Acknowledgment

00

Our gratitude extends to the core team members whose **technical insight** and **cross-sectoral collaboration** shaped the strategic direction of this plan

The development of the One Health Strategic Plan has been made possible through the collaborative efforts and valuable contributions of a diverse range of stakeholders with expertise in human health, animal health, environmental health, food safety, plant health and water supply. We extend our sincere appreciation to the technical teams and partner institutions whose active engagement and expertise were pivotal in formulating this comprehensive One Health strategic plan.

We acknowledge the vital roles played by government institutions including the Ministry of Health (MoH), Ministry of Agriculture (MoA), Ethiopian Public Health Institute (EPHI), Ethiopian Food and Drug Authority (EFDA), Environmental Protection Authority (EPA), Ethiopian Wildlife Conservation Authority (EWCA), Animal Health Institute (AHI), National Veterinary Institute (NVI), Armauer Hansen Research Institute (AHRI), Ethiopian Agriculture Authority (EAA), Ethiopian Metrology Institute (EMI), Ethiopian Disaster Risk Management Commission (EDRMC), Minstry of water and Energy (MoWE), alongside leading academic institutions such as Addis Ababa University, Jimma University, and Mekelle University. We also appreciate the involvement and contribution of professional associations, including the Ethiopian Public Health Association (EPHA) and the Ethiopian Veterinary Association (EVA).

We extend our gratitude to non-governmental organizations such as the Food and Agricultural Organization of the United Nations (FAO), United Kingdom Health Security Agency (UKHSA), Capacitating One Health in Eastern and Southern Africa Project (COHESA), Family Health International (FHI-360), the Swedish International Development Cooperation Agency (Sida), and International Centre of Insect Physiology and Ecology *(icipe)* whose technical and financial support were instrumental during the strategic plan development process.

Our thanks also go to the World Health Organization (WHO), Resolve to Save Lives (RTSL), Core Group Partners Project (CGPP), Vétérinaires Sans Frontières Suisse (VSF- Swiss), and the Swiss Embassy for their technical support, guidance, and alignment with international One Health frameworks.

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Our gratitude extends to the core team members whose technical insight and cross-sectoral collaboration shaped the strategic direction of this plan. The National One Health Secretariat expresses its profound appreciation and looks forward to continued collaboration as we implement this multisectoral national One Health strategy.

Dr. Mesay Hailu,
Director General,
Ethiopian Public Health Institute (EPHI)

Executive Summary

Ethiopia Unveils **One Health Strategy** to Tackle Zoonotic Diseases, AMR, Food Safety and Environmental Risks

Task Forces and technical working groups **support the operationalization** of One Health across all levels

The National One Health Five-Year Strategic Plan (2025/26–2029/30) outlines a comprehensive roadmap to address the critical health threats at the human-animal-plant-environment interface. It seeks to enhance Ethiopia's capacity to prevent, detect, and respond to endemic, emerging, and re-emerging zoonotic diseases and invasive species, vector-borne and neglected tropical diseases; antimicrobial resistance (AMR), food safety risks, and environmental health hazards. By fostering multisectoral collaboration, evidence-informed decision-making, and community-driven initiatives, the strategic plan envisions achieving optimal health for humans, animals, plants, and ecosystems through a unified One Health approach.

The strategy builds on lessons learned from the first One Health Strategic Plan (2018–2022), which marked significant strides in institutionalizing One Health coordination, identifying priority zoonotic diseases, and implementing cross-sectoral interventions. However, challenges, mainly fragmented surveillance systems, lack of common data-sharing platforms, weak multisectoral coordination, and limited funding highlighted the need for a more robust second-phase One Health strategic plan.

The strategic pillars incorporated in this plan include enhancing One Health coordination, governance, surveillance, and research; improving preparedness and response to endemic, emerging, and re-emerging zoonotic, vector-borne, and neglected tropical diseases; assessing and managing food safety risks; preventing and containing AMR though a One Health approach; building socio-ecological resilience; and strengthening risk communication and community engagement.

The plan emphasizes collaborative, evidence-informed, and community-driven initiatives to address complex and interlinked health challenges at the human-animal-plant and environmental interface.

Institutionally, the national One Health Secretariat, hosted at the Ethiopian Public Health Institute (EPHI), coordinates One Health interventions as per the mandate given under EPHI establishment regulation number 529/2023. The National One Health Interministerial Task Force will oversee and provide strategic direction for the implementation of the national One Health and health security interventions. The regional One Health Task Forces and technical working groups support the operationalization of One Health across all levels.

This strategic plan integrates institutional, laboratory, and workforce capacity building; identifies priority research areas, the role and responsibility of sectors, and a robust monitoring and evaluation framework to guide implementation and inform policy.

To ensure sustainability, the plan emphasizes digital innovation and leveraging digital tools, fostering stakeholder engagement, including government sectors, academia, the private sector, and international organizations. It also strategically identifies the cost of implementation to mobilize resources and align efforts with global One Health frameworks. By implementing this strategic plan, Ethiopia aims to reduce health risks, enhance socio-ecological resilience, and promote sustainable development, with a vision of seeing a healthier and productive population that contributes to the country's economic growth and global health security.

01

Introduction

1.1 Background

One Health (OH) is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals, plants and ecosystems. It recognizes that the health of humans, domestic and wild animals, plants, and the wider environment are closely linked and interdependent.

The One Health Approach mobilizes multiple sectors, disciplines, and communities at varying levels of society to **work together to foster** well-being and tackle threats to health and ecosystems

1.1. Background

The approach mobilizes multiple sectors, disciplines, and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems, while addressing the collective need for clean water, energy, and air, safe and nutritious food, acting on climate change, and contributing to sustainable development(1).

Fundamentally, One Health operates through multisectoral and transdisciplinary collaborations, acknowledging that the health of people, animals, plants, and ecosystems is deeply intertwined. Its scope extends to food systems, zoonotic diseases, antimicrobial resistance (AMR), and environmental pollution. Globally, agencies such as the World Health Organization (WHO), the United Nations Food and Agriculture Organization (FAO), World Organization for Animal Health (WOAH), and United Nations Environment Program (UNEP) coordinate efforts under the One Health Quadripartite framework to manage health risks, strengthen surveillance, and develop policies(2). Global challenges addressed by One Health include emerging zoonotic diseases, antimicrobial resistance (AMR), food safety, climate change, and environmental pollution. Notably, 75% of emerging infectious diseases are zoonotic, with over one billion human cases annually(3). Zoonotic diseases account for 2.5 billion infection incidents and 2.7 million fatalities annually (4), which disproportionatey affect low and middle-income countries. Economic implications of zoonotic diseases are substantial, with annual global economic losses estimated between $20-25 billion (5).

Food safety is another area of concern to be addressed through the One Health approach(6). The consumption of unsafe food poses a threat to human health, and globally, an estimated 600 million, almost 1 in 10 people, are exposed to foodborne diseases after consumption of contaminated food, and 420,000 deaths are reported annually (7).

AMR is among the top ten global health threats, with resistant bacteria responsible for approximately 4.95 million deaths globally in 2019(2).

Ethiopia faces significant threats from zoonotic diseases, climate change-induced droughts and floods, and environmental degradation and pollution, all of which threaten public health, food security, and livelihoods. The annual economic burden of the three major food-borne diseases in Ethiopia, namely Campylobacteriosis, E. coli infections, and non-typhoidal Salmonellosis, is estimated at $723 million (8). Ethiopia experiences nearly 21,200 deaths attributed to AMR annually (9). The country is among the most susceptible to the effects of climate change. Current weather variability leads to hazards such as floods, droughts, and soil erosion, which can impact the most vulnerable societies (10).

In response to these complex issues, Ethiopia aligned efforts with the Global Health Security Agenda (GHSA) and institutionalized One Health through integrating human, animal, plant, and environmental health dimensions to address interlinked health challenges, preserve biodiversity, build resilience, and ensure sustainable health, livelihoods, and food systems.

1.2. Rationale of the Strategic Plan

In today's rapidly evolving global landscape, an embracing One Health approach is crucial for effectively preventing, predicting, and managing the myriad health challenges that affect humans, animals, plants, and ecosystems. This integrated perspective not only addresses current health issues but also reinforces socio-ecological resilience, ensuring a more sustainable future. Despite its importance, the successful implementation of the One Health approach is hindered by several factors, including weak governance, limited surveillance and research capacity, inadequate funding, limited legal and policy framework, competing priorities, limited laboratory capacity, and ineffective One Health operationalization.

These challenges impede our ability to address emerging and re-emerging threats that can significantly impact public health and environmental integrity. This necessitates strong and sustained efforts through developing a revised, robust second-phase One Health strategic plan. By leveraging the One Health approach, governmental and non-governmental organizations can build systems that protect human and animal populations while mitigating the environmental factors that drive emerging and re-emerging zoonotic diseases.

This strategy aims to enhance multisectoral coordination, capacity, risk communication, food safety, antimicrobial resistance prevention and containment, socio-ecological resilience, ultimately reducing health risks and promoting sustainable well-being for humans, animals, and ecosystems across Ethiopia. More importantly, the government is expected to provide a legal and policy framework to facilitate an enabling environment for the successful implementation of the strategic plan. By promoting a sustained multi-sectoral One Health approach, we aim to foster collaboration across various sectors, ensuring that health initiatives are comprehensive and effective. This plan not only focuses on immediate responses but also emphasizes long-term strategies to build resilience and adaptability in the face of future health challenges. Through strengthened governance, increased research investment, and enhanced interdisciplinary collaboration, we aims to create a robust framework for

$20-25b

Estimated annual global economic losses from Zoonotic diseases

75%

Percentage of emerging infectious diseases that are zoonotic, with over one billion human cases annually

600m

Estimated number of people, almost 1 in 10, who are exposed to foodborne diseases after consumption of contaminated food

109m

Population of Ethiopia, which is the second most populous country in Africa

80%

Percentage of the population that relies on agriculture, including livestock and fishery production

40%

Contribution of agriculture to Ethiopia's GDP, while livestock accounts for 30% of GDP

safeguarding health across all domains.

1.3. Country profile

Ethiopia, the second most populous country in Africa with over 109 million people (11) and the largest livestock population (70.2 million cattle, 42.9 million sheep, 52.4 million goats, 8.1 million camels, and 57.0 million poultry) (12), is at high risk of interlinked human, animal, and environmental health threats. Over 80% of the population relies on agriculture, including livestock and fishery production, making zoonotic diseases a persistent public health threat.

Climate change, environmental degradation, natural and man-made disasters exacerbate the overall health security challenges, playing a role in destabilizing food systems and displacing vulnerable communities (such as farmer households, pastoralists, women and girls, youth, people with disabilities (PWD), marginalized ethnic groups (13).
In Ethiopia, about 80% of the population residing in rural areas and relying on agriculture and livestock production (14). The economy is dependent on agriculture, which contributes about 40% of GDP, while livestock accounts for 30% of GDP (15).

The health sector faces significant burdens from infectious diseases; malaria, tuberculosis, and HIV/AIDS (16), rabies, anthrax, brucellosis, and other zoonotic diseases further overburden the health systems. The current veterinary service infrastructure is insufficient, marked by limited vaccination coverage and inadequate disease surveillance and reporting systems for priority zoonotic diseases (17).



1.4. Lessons from the First One Health Strategic Plan (2018-2022)

The first five years of implementing the One Health strategic plan, 2018-2022, witnessed unprecedented achievements in some areas, with significant progress in institutionalizing One Health coordination, capacity building, international partnerships, and One Health research thereby enhancing the country's capacity to prevent, detect and respond to public health threats. Ethiopia has identified five priority zoonotic diseases through a consultative prioritization exercise, rabies, anthrax, brucellosis, HPAI, and RVF, for targeted and enhanced surveillance and control efforts due to their significant impact on human health and economic stability.

The country's One Health governance framework, hosted at the Ethiopian Public Health Institute (EPHI), oversees the implementation of the National One Health Strategic Plan (18). The key interventions under the strategic plan include nationwide vaccination campaigns targeting rabies and anthrax and enforcement of antimicrobial resistance prevention and containment (Strategic Plan 2021–2025) to monitor prudent antibiotic use in livestock, and human health (15).

During the first One Health strategic

A systematic approach was followed, involving over three rounds of **consultative discussions**, write-ups, reviews, and validation workshops

plan, significant strides have been made, including the establishment of a One Health Secretariat, different technical working groups, regional One Health task forces, coordination and governance mechanism focused to address prioritized zoonotic diseases. However, AMR, food safety and environmental health issues were not included. Furthermore, limited monitoring and evaluation, lack of funding, unavailability of interoperable information, data sharing and surveillance platforms, poor infrastructure to address One Health issue, and fragmented multisectoral coordination system were the factors the impede its implementation.

1.5. One Health Strategic Plan Development Process

This multisectoral One Health Strategic plan was developed by bringing together diverse stakeholders from the human, animal, plant, and environmental health sectors, as well as professional associations, academia, UN agencies, and development partners. A One Health Strategic Planning task force was established, comprising technical and leadership experts from the human, animal, and environmental sectors, along with partners to coordinate the development process. A systematic approach was followed, involving over three rounds of consultative discussions, write-ups, reviews, and validation workshops.

The initial stage focuses on strategically analyzing the previous One Health strategy implementation, extensively reviewing the Quadripartite Joint Plan of Action (JPA) to contextualize it to the Ethiopian context, identifying successes and bottlenecks, and reviewing existing scientific evidence to support the design of tailored interventions for Ethiopia's unique One Health context. It also included identifying existing resources, strengths, and weaknesses within the One Health system, along with opportunities and threats in the external environment where One Health operates. After the situational and SWOT analysis, strategies to leverage opportunities and address challenges and bottlenecks were considered and prioritized to develop targeted interventions. Prioritization was conducted for bottlenecks and gaps identified through consultative discussions. Prioritization was done considering the magnitude, government priority, community concern, feasibility, and impact of interventions. After conducting the strategic situational assessment and reviewing the JPA, consensus was reached among the diverse participants regarding the vision, mission, pillars, strategic objectives, and guiding principles of the One Health strategic plan.

Following this, the identification of strategic actions and respective high-impact activities was completed through facilitated group work, considering the identified and prioritized gaps and bottlenecks during the situational assessment. A standard planning template was utilized to develop consistent plans across each pillar and strategic objective.

After identifying the strategic actions and activities, an action plan for implementing those activities across all relevant sectors was developed. Subsequently, a monitoring and evaluation plan to track progress and make adjustments as needed was created through a consultative process, with measurable targets set. Each detailed activity was costed to determine the estimated cost of implementation for targeted resource mobilization and advocacy. Lastly, the draft strategic plan was thoroughly reviewed with new participants involved over three days. Adjustments and finalization of the plan were completed, and the final plan was validated.



Strategic Situational Assessment

02

A strong One Health governance and coordination mechanism is **essential to ensure effective coordination** and alignment among One Health implementing sectors in Ethiopia

2.1. One Health Coordination, Capacity, Surveillance and Research

To address the multidimensional and multifaceted One Health challenges, Ethiopia established a national One Health (OH) platform in 2016, with four relevant government institutions: the Ministry of Health (MoH), the Ministry of Agriculture (MoA), the Ethiopian Wildlife Conservation Authority (EWCA), and the Environmental Protection Authority (EPA) , which have signed memorandums of understanding (MoUs) to work together in an OH approach.

The Ethiopian OH platform was structurally arranged at national and subnational levels to coordinate OH interventions. The National OH steering committee took a leadership role for establishing and overseeing disease-specific technical working groups (TWGs) for Rabies, Anthrax, Brucellosis, and emerging pandemic threats. Sub-national OH taskforces have started implementing OH strategies and guidelines in the prevention, detection, and response to prioritized zoonotic diseases.

Significant milestones have been achieved in AMR and food safety at both levels, even though these pillars were not formally integrated into the national OH platform(13). The AMR Advisory Committee and Food Safety TWGs have been operating independently of the platform. Moreover, fish and plant origin related food safety issue through One Health approach is not well addressed.

A strong One Health governance and coordination mechanism is essential to ensure effective coordination and alignment among One Health implementing sectors in Ethiopia. The previous national OH steering committee coordination has shifted from ad hoc to a structured government office. In 2023, One Health secretariat was established under Ethiopian Public Health Institute (EPHI) to coordinate multi-sectoral and multi-disciplinary One Health implementation. The secretariat helped to operationalize One Health interventions in the country and provided strategic support to develop strategic documents, guidelines, protocols and tools.

2.2. Burden of Zoonotic Diseases

Zoonotic diseases, transmitted between animals and humans, are responsible for about 75% of emerging and re-emerging human infectious diseases. Zoonotic diseases pose significant threats to global, regional and national health and economic loss (19). Ethiopia faces a profound public health and economic challenge due to endemic zoonotic diseases such as rabies, anthrax, brucellosis, and echinococcosis, causing significant public health and economic hardships.

An estimated 2,700 human deaths occur annually due to rabies, primarily from dog bites, which ultimately imposes a psychological burden on affected families and communities (20). Neglected tropical diseases (NTDs) and vector-borne diseases (VBDs) are another significant global health concern, particularly in Africa. Africa harbors almost 40% of the worldwide burden of NTDs, with significant cases of malaria, lymphatic filariasis, onchocerciasis, schistosomiasis, and dengue fever (21).

The burden of NTDs and VBDs is significant in Ethiopia, with reported cases of trachoma, podoconiosis, cutaneous leishmaniasis, ascariasis, leprosy, and visceral leishmaniasis (22).

Limited access to healthcare and veterinary services, insufficient awareness, traditional practices (like raw animal product consumption and home sharing), and human-animal interactions drive zoonotic diseases. Ethiopia's ecological diversity, encompassing highlands, lowlands, and rangelands, supports a variety of livestock and wildlife, many of which harbor zoonotic pathogens. The pressures of urbanization, population growth, and rising demand for animal-derived products further complicate these risks.

These factors are often associated with human activities that elevate the risk of disease spillover at the human-animal-environment interface. Additionally, potential emerging and re-emerging zoonotic diseases, such as HPAI, RVF, and others, require special consideration in future planning.

To address these challenges, several interventions have been made, including the development and implementation of strategic plans for rabies, anthrax, and brucellosis. Initiatives for preparedness against emerging pandemic threats, such as Rift Valley Fever (RVF) and Highly Pathogenic Avian Influenza (HPAI), are also in progress. There has been progress towards the leprosy elimination target and the Onchocerciasis Control Program.

In addition, the Ethiopian Ministry of Health has developed a National Neglected Tropical Diseases Master Plan to tackle these issues through integrated mapping, rapid scale-up of interventions, and operational research (23).

2.3. Food Safety

Foodborne diseases are also a major public health concern in Ethiopia, with an annual incidence ranging from 3.4% to 9.3%, with a median of 5.8% (28). Ethiopia's current foodborne disease burden is significantly impacting public health and the economy. These diseases lead to numerous cases and deaths annually, with a high Disability-Adjusted Life Year (DALY) count, reflecting years of healthy life lost. Children under five years of age, who represent 15% of the population, bear a disproportionately large share of the burden, with up to 70% of costs for certain pathogens like Campylobacter, E. coli 0157:H7, and salmonella spps, of which the majority of them are zoonotic in origin and related to hygiene and sanitation practice (24).

In Ethiopia, the magnitude of the disease and economic burden caused by unsafe food consumption is not well known, as food safety surveillance systems are not in place. Few fragmented pocket studies on microbial safety, mycotoxin levels, pesticide residues, heavy metals levels, zoonotic disease occurrence, and the like indicate high health and economic burdens related to food safety (25). In addition, Ethiopia has a dominantly informal market with a poor layout, food misbranding and adulteration, weak infrastructure (lack of trained human resources and limited food safety laboratory), poor regulatory enforcement and traceability, weak surveillance in food safety and quality management systems. There is also a poor hygiene and sanitary practices, and lack of standards in food establishments contributes the spread of pathogens (26).

At a Glance

15%

Population percentage of children under five years of age, who bear a disproportionately large share of the burden, with up to 70% of costs for certain pathogens like Campylobacter, E. coli 0157:H7, and salmonella spps, of which the majority of them are zoonotic in origin and related to hygiene and sanitation practice

2,700

Estimated human deaths that occur annually due to rabies, primarily from dog bites, which ultimately imposes a psychological burden on affected families and communities



The impacts of key pathogens research have identified several key pathogens responsible for foodborne illnesses in Ethiopia: Campylobacter, non-typhoidal Salmonella, and enterotoxigenic E. coli are major contributors to illness, particularly from contaminated beef and poultry.

Dairy products are linked to approximately 500,000 cases of illness and 200 deaths annually. Vegetables contribute to about 300,000 illnesses and 320 deaths each year due to contamination from pathogens (8).

The Ethiopian government has recognized the need for improved food safety through initiatives such as the national food safety master plan, national food and nutrition policy, primary agricultural produce food safety and quality strategy, and national food and nutrition strategy which aims to enhance public health and trade by establishing robust food safety standards (27). This plan, policies and strategies emphasize the necessity for coordinated efforts across multiple sectors to ensure food safety and compliance with international standards (28).

2.4. Antimicrobial Resistance (AMR)

Antimicrobial resistance affects all countries, directly causing an estimated 1.27 million deaths every year. However, low and middle-income countries are most affected, where drivers and consequences are exacerbated by poverty and inequality (29). Failing to tackle antimicrobial resistance could cause an estimated 10 million deaths a year and cost up to $1 trillion by 2050 with the highest impact expected in Asia and Africa, which likely will account for an estimated 4.7 million and 4.2 million deaths, respectively.

FAO's 2024 report shows that 70% of antimicrobials sold worldwide are used in food-producing animals alone (30).

In Ethiopia in 2019, there were 21,200 deaths attributable to AMR and 85,300 deaths associated with AMR. The country has the 35th highest age-standardized mortality rate per 100,000 population associated with AMR across 204 countries (9). AMR is increasing at an alarming rate in Ethiopia, particularly among extended-spectrum beta-lactamase (ESBL)-producing and multidrug-resistant bacteria.

The prevalence of ESBL-producing bacteria ranged from 18% to 55.5%, while multidrug-resistant bacteria were identified in 62.9% to 87.4% of cases. Methicillin-resistant Staphylococcus aureus (MRSA) and vancomycin-resistant enterococci (VRE) were also common, with significant resistance to multiple antibiotics. Contributing factors included inappropriate antibiotic use, inadequate infection control, and a lack of surveillance (31).

The risks of AMR are particularly high in countries with weak legislation, regulatory surveillance, and monitoring systems on the use of antimicrobials and prevention of AMR in agri-food systems. In addition to its direct impact on human and animal health, AMR poses risks to food and agriculture systems, food safety, food security, livelihoods, and plant and environmental health, including soil and water, which affects the economic well-being of millions of farming households (32).

In 2024, the United Nations General Assembly (UNGA) "Political Declaration of the High-level Meeting on Antimicrobial Resistance" recognized that AMR is one of the most urgent global health threats and development challenges and demands immediate action to safeguard our ability to treat human, animal, environment and plant diseases.

Ethiopia joins the global community and the implementation process by developing three generations of strategic plans to tackle AMR by different government sectors and in collaboration with international partners. Various key initiatives are being implemented to address the threat of AMR. These include the current National Strategic Plan for AMR (2021–2025) in One Health approach that encompasses human, animal, and environmental sectors coordinated by

500,000

Estimated annual cases of illness linked to dairy products. 200 deaths are linked to dairy products

1.27m

Estimated annual deaths caused by antimicrobial resistance, which affects all countries

21,200

Deaths attributable to AMR and 85,300 deaths associated with AMR in 2019

70%

Antimicrobials sold worldwide and used in food-producing animals

the national AMR governance system. Besides, sector-specific AMR surveillance plans, and IPC/WASH strategies are being implemented.

2.5. Ecosystem Health and Climate Change

The health of an ecosystem is shaped by a complex interplay of factors, such as climate change, biodiversity, human activities, and the availability of essential resources like water, air, and soil. Climate change threatens the structure and functions of ecosystems, increasing health risks at the interface of humans, animals, plants, and the environment, particularly affecting vulnerable communities.

The World Bank's report on climate action in Ethiopia highlights that severe drought impacts food security, necessitating coordinated efforts to build resilience and seize opportunities (15). Increased droughts and erratic rainfall result in reduced agricultural yields, leading to food shortages and malnutrition (33). These situations are exacerbated by insufficient integration of climate data into agricultural planning, limited dissemination of adaptive farming technologies to local farmers, and weak coordination among One Health stakeholders. Rising temperatures lead to heat stress and related illnesses, particularly among outdoor workers and vulnerable populations. Moreover, climate change expands the habitats of disease vectors, increasing the prevalence of vector-borne diseases such as malaria, dengue, and Rift Valley fever (34). The Ethiopia Malaria Strategic Plan 2021-2025 underscores the influence of climate change on the spread of these diseases (35). The WHO's country profile on climate change and health in Ethiopia notes a rise in waterborne diseases due to climate variability, highlighting the need for improved water and sanitation services. Ethiopia's Water, Sanitation, and Hygiene (WASH) Strategy addresses the exacerbation of waterborne diseases due to climate-induced flooding (36).

Land-use and land-cover changes lead to fragmentation and loss of biodiversity, increasing human contact with natural areas and wildlife. Habitat degradation fosters the proliferation of generalist species adapted to human environments, increasing the likelihood of disease transmission to humans and animals. Additionally, these changes, combined with climate change, can affect the introduction and spread of invasive alien species by altering niche availability and dispersal potential.

Unsustainable production and consumption practices, along with improper waste management, contribute to environmental pollution and the emergence of new threats, including microplastic pollution, obsolete pesticides, pharmaceuticals, heavy metals, endocrine-disrupting chemicals, and indoor and ambient air pollutants. Among the emerging and prevailing environmental threats, microplastics per capital annual generation rate is estimated to be 3.8 kg (37). Therefore, it is crucial to address these interconnected challenges through a One Health approach.

2.6. Risk Communication and Community Engagement (RCCE)

RCCE is essential for effective One Health program implementation, especially in response to the evolving landscape of One Health approaches, technological advancements, and the increasing emphasis on community-centered strategies. Key global declarations and frameworks including the 1978 Alma Ata Declaration, the 1986 Ottawa Charter, the 2016 Shanghai Declaration, and the International Health Regulations (IHR 2005) have underscored RCCE as a core component of public health programs. However, major health crises such as the 2003 SARS outbreak, the



Climate change threatens the **structure and functions of ecosystems**, increasing health risks at the interface of humans, animals, plants, and the environment, particularly affecting vulnerable communities.

2009 H1N1 pandemic, the 2014 Ebola outbreak, and the 2019 COVID-19 pandemic exposed significant gaps in the application of RCCE in public health emergency preparedness and response. These events highlighted the need to integrate and strengthen community engagement as a fundamental element of the effort to address emerging and re-emerging One Health threats.

Ethiopia has a diversity of media in terms of ownership, both public, commercial, and community. As of 2019, there were 32 commercial broadcasting media, 50 community radio stations, and 19 public service media on-air in the country (38). As of 2023, there were 66.8 million cellular mobile active mobile connection subscribers, equivalent to 53.5% of the total population.

At the start of 2023, Ethiopia had 20.86 million internet users, marking an internet penetration rate of 16.7 percent. Among these users, 6.40 million were active on social media platforms, constituting 5.1 percent of the total population.

Digitalization technologies applied to risk communication and community engagement include online RCCE training for COVID-19. Epidemic intelligence from open sources (EIOS) and DHIS2 are also used for early warning systems, and the outputs of these digital platforms were utilized for risk communication accordingly.

In addition to community health workers (Health Extension workers, animal health workers, etc.), there is community structure (religious leaders, schools, kebele leaders, clan leaders, village health leaders, Idir, community volunteers, and women's development army) for effective community engagement in One Health program implementation.

Improved social behavior change (SBCC) and risk communication strategies and approaches are essential for increasing prudent use of antimicrobials, prevention and control of zoonotic diseases, hygienic food handling and production practice, waste management practices and ultimately, increasing utilization of health services. Effective behavior change approaches must support activities that target communities for their own health, to address the complex and interconnected public health threats. SBCC must also target community members along with community leaders and change agents, in order to reinforce consistent behaviors (39).

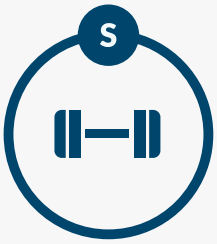


20.86m

Internet users in Ethiopia at the start of 2023, marking an internet penetration rate of 16.7 percent.

2.7. SWOT Analysis

Table 1. SWOT Analysis, One Health Strategic Plan, Ethiopia, 2025



Strengths

1. Strong involvement of key One Health actors (MOH, MOA, EWCA, and EPA) and implementers.
2. Development of costed operational plans for the implementation of the prioritized zoonotic Diseases
3. Existence of a memorandum of understanding with partners and the Government
4. Existence of sectoral commitments.
5. Existence of a multisectoral National Advisory Committee for coordination and joint resource mobilization.
6. Availability of different strategic plans (AMR, food safety, prioritized zoonotic disease)
7. Existence of a laboratory-based surveillance system network established in the human and Animal sectors guided by a surveillance strategy
8. Existence of national One Health secretariat, different TWGs at national level, OHTF at regional level, and signed MOU for operationalization of OH
9. Presence of agreed upon priority zoonotic diseases in the country
10. Availability of functional BSL-3 laboratories at EPHI and AHI.
11. Presence of surveillance and reporting system in both human and animal health sectors.
12. Establishment of an EOC that facilitates coordinated responses during emergencies.
13. Existence of Multisectoral National Action Plan for Health Security (NAPHS) for coordination and joint resource mobilization.
14. Presence of different strategies such as the national One Health risk communication strategy, brucellosis prevention and control, and rabies elimination.

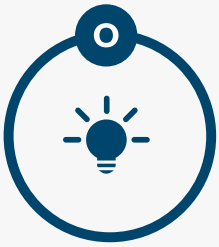


Weaknesses

1. Weak surveillance and research infrastructure across the One Health sectors
2. Limited coordination, collaboration and engagement among sectors and regions - to address top-down outreach
3. Lack of integrated and interoperable joint surveillance and data sharing platform among sectors
4. Limited early warning system in case of preparedness, detection, and response of emerging and remerging infectious diseases
5. Weak integrated Joint research activities among the One Health disciplines
6. Lack of One Health policy and legal framework incorporation in to sectors to effectively deliver One Health objectives
7. Limited budget allocation for the implementation of One Health activities
8. Weakness of cascading the One Health structure horizontally to the sectors and vertically to the regions
9. Insufficient advocacy, public and /or community awareness including One Health sector professionals at sub national and district-level
10. Weak public private engagement in all One Health activities
11. Weak and unintegrated cross border harmonization about the prevention and control of transboundary animal disease and other threats
12. Limited consultation with the community to develop community driven OH programming

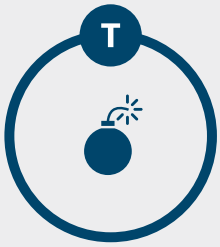
2.7. SWOT Analysis *(Continued)*

Table 1. SWOT Analysis, One Health Strategic Plan, Ethiopia, 2025



Opportunities

1. Existence of quadripartite agreement for One Health operationalization
2. Global health agendas.
3. Existence of Global One Health initiative
4. Emerging technologies and innovations
5. Funding and investment opportunities.
6. Existence of potential development partners support such as FAO, WHO, CDC, UKHSA
7. Existence of global One Health strategies and frameworks
8. Political commitments
9. Engagement of universities and research institutes in One Health education, research and community services
10. Availability of experience sharing platforms such as global One Health day and rabis day.



Threats

1. Political instability and security Issues
2. Health service distraction: conflicts disrupt program implementation and stakeholder collaboration.
3. Global economic flow downturns, wars, future pandemics, emerging diseases, political dynamics
4. Financial constraints
5. Financial shortage due to increased demand
6. Unsustainable financial sources (Donor dependency)
7. Economic crises (Inflation)
8. Cross-Border Disease Spread
9. Community ownership uptake and cost sharing
10. Climate Change and Natural Disaster
11. Vulnerability to shocks
12. Environmental pollution
13. Brain drains
14. Trained personnel turnover.

03 Vision, Mission and Core values



3.1. Vision

We envision to see Ethiopia with optimal health for humans, animals, plants and the environment.

3.2. Mission

To establish and sustain a functional One Health coordination mechanism at all levels to prevent, detect, and respond to endemic, emerging, and reemerging health threats, including zoonotic diseases, antimicrobial resistance, food safety risks, and environmental health hazards through multisectoral collaboration and effective risk communication and community engagement at the human-animal-plant-environment interface.

3.3. Core Values

Collaboration
Dedicated to forging collaborative partnerships across key one health sectors, partners and commmunity to achieve shared vision

Coordination
Committed to the harmonization and integration of one health interventions through the one health secretariat for efficient resource utilization and achievement for common goals

Communication
Devoted to the timely exchange of information among all actors using available communication channels for multi-level decision marketing

Cooperation
Geared towards voluntary engagement of different sectors to engage in a mutually beneficial exchange instead of competing

3.4. Guiding Principles

i) Interdisciplinary approach
ii) Evidence-based decision making
iii) Transparency and accountability
iv) Community-driven
v) Global solidarity and local actions
vi) Monitoring and Evaluation

04 Theory of Change Model



Figure 2: Theory of Change Model



05 Strategic Pillars of the One Health Strategic Plan

The primary objective of this pillar is to ensure the **ongoing sustainability of a multisectoral coordination mechanism** that engages various One Health sectors at national and sub-national level

To create an enabling policy environment and align with the global One Health framework, the One Health strategy has the following strategic pillars:

Pillar One: Enhancing One Health Governance, Coordination, Capacity, Surveillance, and Research

Pillar Two: Enhancing Preparedness, Detection, and Response to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases

Pillar Three: Food Safety Risk Assessment and Management

Pillar Four: Prevention and Containment of Antimicrobial Resistance (AMR) through the One Health Approach

Pillar Five: Building socio-ecological resilience for optimal health for humans, animals, and plants

Pillar Six: Risk Communication and Community Engagement

5.1. Pillar One: Enhancing One Health Governance, coordination, Capacity, Surveillance, and Research

One Health coordination and governance involves the coordination of different government sectors, non-governmental organizations, and academia to address the pressing challenges of zoonotic disease, control and maintain AMR, and address food safety and environmental health threats. At the national level, there is a National One Health Secretariat (NOHS) to coordinate OH in Ethiopia. However, the existing coordination, collaboration, and communication among the OH stakeholders still require better engagement. Moreover, the secretariat lacks an institutionalized governance structure with defined lines of accountability and financial resources at the subnational level to plan, coordinate, and monitor OH activities in the country.

The primary objective of this pillar is to ensure the ongoing sustainability of a multisectoral coordination mechanism that engages various One Health sectors at national and sub-national level. By fostering collaboration among diverse stakeholders, including public health, environmental agencies, agriculture, and veterinary services, we aim to create a more integrated approach to health that recognizes the interconnectedness of human, animal, and environmental health. Additionally, it will enhance the capacities of various sectors involved in One Health by fostering collaboration across the human, animal, and environmental domains. It emphasizes the importance of joint surveillance and early warning efforts, which include the systematic collection, sharing and analysis of One Health-related data from humans, animals, and ecosystems.

Table 2. OH Coordination, research and surveillance strategic pillars, objectives, actions, and KPIs May 2025

Strategic Pillar 1: Enhancing One Health Coordination, Capacity, Surveillance, and Research			
Strategic Objective 1.1: Enhance One Health Coordination and Governance across various One Health Implementing sectors and partners			
Outcome indicator: Proportion of functional One Health coordination and governance platforms in place			
Strategic Actions	Key Performance Indicators	Lead Sector	Collaborating Sector
1.1.1. Institutionalize OH coordination and governance at the subnational level	Percent of regions with an established and functional OH coordination platform	NOHS	Key OH sectors
	Percent of OH sectors with endorsed governance structures	NOHS	Key OH sectors
	Percent increase in participation of relevant sectors in OH coordination	NOHS	Key OH sectors
1.1.2. Strengthen cross-sectoral coordination by developing standardized communication and reporting mechanisms	Number of developed standardized communication and reporting tools	NOHS	Key OH sectors
	Percent of OH sectors submitting regular reports using the new reporting mechanism	NOHS	Key OH sectors
1.1.3. Creating an enabling environment for OH through developing OH policy	OH, policy officially adopted and implemented at the national/subnational level	NOHS	Key OH sectors
	Percent of OH stakeholders aware of and complying with the OH policy	NOHS	Key OH sectors
Strategic objective 1.2. Enhance OH capacity, joint surveillance, and research **Outcome indicator:**			
Strategic Actions			
1.2.1. Enhance coordination on rapid outbreak investigation and response team through the OH approach	Percent of trained OH Rapid Response Team (OHRRT) members actively engaged in outbreak response	NOHS	Key OH sectors
	Number of simulation exercises completed with performance evaluation	NOHS	Key OH sectors
	Percent of subnational teams familiarized with the National OHRRT Training manual	NOHS	Key OH sectors
	Number of international collaborations established for knowledge exchange	NOHS	Key OH sectors
1.2.2. Establishing a Legal Framework for Public-Private and Academic Engagement in One Health	Proportion of stakeholders engaged in OH legal framework discussions	NOHS	Key OH sectors
	Number of policies reviewed and revised to support OH engagement	NOHS	Key OH sectors
	Number of formalized public-private-academic partnerships established	NOHS	Key OH sectors

Table 2. OH Coordination, research and surveillance strategic pillars, objectives, actions, and KPIs May 2025 (Cont'd)

Strategic Pillar 1: Enhancing One Health Coordination, Capacity, Surveillance, and Research			
1.2.3. Develop a harmonized national framework for zoonotic disease prevention and control by prioritizing high-impact diseases and strengthening laboratory diagnostic capacity through infrastructure investment, workforce development, and enhanced disease surveillance systems.	Number/List of priority zoonotic diseases identified and targeted for intervention	NOHS	Key OH sectors
	Percent of regional reference laboratories upgraded for zoonotic disease diagnostics	NOHS	Key OH sectors
	Percent of personnel trained in zoonotic disease diagnostics and response	NOHS	Key OH sectors
	Percentage improvement in biosafety and biosecurity compliance among targeted laboratories	NOHS	Key OH sectors
	Number of campaigns focusing on zoonotic disease prevention strategies, targeting farmers, veterinarians, and at-risk communities. Conducted	NOHS	Key OH sectors
1.2.4. Strengthen integrated surveillance and reporting system for priority zoonotic diseases through a multisectoral data-sharing mechanism.	Number of OH sectors with signed data-sharing agreements	NOHS	Key OH sectors
	Percentage increase in data exchange between OH stakeholders	NOHS	Key OH sectors
	Functional real-time data-sharing platform with active users.	NOHS	Key OH sectors
	Operational sentinel surveillance sites with regular reporting.	NOHS	Key OH sectors
	Established and functional regional and national task forces with meeting minutes.	NOHS	Key OH sectors
	Established an interoperable data sharing platform	NOHS	Key OH sectors
2.5. Enhance research on prioritized thematic areas of OH	Proportion of research projects aligned with national OH priorities	NOHS	Key OH sectors
	Number of researchers trained in operational research methodologies	NOHS	Key OH sectors
	Number of studies conducted on zoonotic disease spillover at high-risk interfaces	NOHS	Key OH sectors
	Proportion of research findings integrated into policy and public health strategies.	NOHS	Key OH sectors
	Number of scientific evidence dissemination organized		
	Number of One Health policy dialogue conducted		

* Key One Health Sectors: MoH, MoA, EWCA, EPA
* The National One Health Secretariat and the One Health Coordination Office will primarily coordinate all strategic actions and activities.

This pillar aims to **strengthen early warning and detection systems** across all sectors and administrative levels to address zoonotic disease threats including NTDs and VBDs

5.2. Pillar Two: Enhancing Preparedness, Detection, and Response to Zoonotic Diseases

While emerging zoonotic diseases tend to receive substantial international attention, endemic zoonoses continue to present persistent and often overlooked health challenges. These diseases involve complex transmission dynamics and carry significant public health implications.

Their management requires comprehensive and interdisciplinary approaches that go beyond traditional sectoral boundaries. Addressing endemic, emerging and re-emerging zoonotic pathogens with epidemic and pandemic potential threats requires coordinated efforts across sectors and disciplines, particularly in the areas of prevention, preparedness, early warning, early detection, response, and recovery.

Sustainable intervention strategies must therefore be adaptive and grounded in continuous monitoring, flexible protocols, and a deep understanding of the ecological and social systems that drive transmission. This pillar aims to strengthen early warning and detection systems across all sectors and administrative levels to address zoonotic disease threats including NTDs and VBDs.

A proactive and coordinated approach will enable rapid detection and effective response, improving overall preparedness and minimizing the impact of zoonotic endemic, emerging, and reemerging zoonotic, neglected tropical and vector borne diseases at all levels at the human, animal and environment interface.



Table 3. Enhancing capacity zoonotic diseases strategic pillars, objectives, actions, and KPIs May 2025

Strategic Pillar 2: Enhancing Preparedness, Detection, and Response to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases			
Strategic Objective 2.1: Enhance Multisectoral surveillance system, Early Warning, and data sharing mechanism to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases			
Outcome indicator: 1. Reduction in the Prevalence and incidence of zoonotic diseases **2.** Reduction in time from detection to response in line with the 7-1-7 compliance recommendation			
Strategic Actions	Key Performance Indicators	Lead Sector	Collaborating Sector
2.1.1. Enhance the multisectoral surveillance system, early warning, response, and data sharing mechanism	Percentage of key sectors with integrated and functional multisectoral surveillance systems.	MoH-EPHI-MoA-AHI	EWCA, EPA, AHRI
	Number of the trained personnel in multisectoral surveillance, early warning and response	MoH-EPHI-MoA-AHI	EWCA, EPA, AHRI, NVI
	Percentage of outbreaks detected, reported, and responded to using the 7-1-7 timeline metrics	MoH-EPHI-MoA-AHI	EWCA, EPA, AHRI
2.1.2. Prevent and control zoonotic spillover at the human-animal-wildlife interface.	Reduction in the incidence of zoonotic disease spillover events.	MoH-EPHI-MoA-AHI	EWCA, EPA, AHRI, NVI
2.1.3. Enhance community awareness and sociocultural behaviors related to zoonotic diseases.	Percentage of the population with improved knowledge and behavior regarding zoonotic disease prevention	MoA-MoH-EPHI	EWCA, EPA, AHI, AHRI, NVI
Strategic objective 2.2. Enhance multisectoral preparedness, Outbreak investigation, and diagnosis capacity to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases			
Outcome Indicator: Reduction in mortality and morbidity due to priority zoonotic disease and NTDs			
Strategic Actions			

Table 3. Enhancing capacity zoonotic diseases strategic pillars, objectives, actions, and KPIs May 2025 (Cont'd)

Strategic Pillar 2: Enhancing Preparedness, Detection, and Response to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases			
2.2.1. Improve multisectoral preparedness, Outbreak investigation, and diagnosis capacity	Percentage of the zoonotic diseases diagnosed or identified	EPHI- AHI	EWCA, EPA, MoH, MoA, AHRI, NVI
	Rate of the outbreak response	EPHI-AHI	EWCA, EPA, MOA, MoH, AHRI, NVI
	Developed models to predict outbreaks based on environmental and epidemiological data.	EPHI-MoA-AHI-EPA	EWCA, MoH, AHRI, NVI
	Number of developed contingency plans for emerging and re-emerging threats	MoH-EPHI-MoA-AHI	EWCA, EPA, AHRI, NVI
	Number of joint outbreaks investigated	EPHI-AHI	EWCA, EPA, MoA, MoH AHRI, NVI
	Number of accredited laboratories	EPHI, EAA(APIQC), AHI,	EWCA, EPA, MoH, AHRI, NVI, MoA, EFDA, EAS
2.2.2. Conduct multisectoral research and innovation	Number of obtained intellectual properties	EPHI-AHI	EWCA, EPA, MoH, AHRI, NVI, Academia, EARI
	Number of technologies/ideas/tools transferred	EPHI-AHI	EWCA, EPA, MoH, AHRI, NVI, MoA, Academia, EARI
	Success rate of the innovations	EPHI -AHI	EWCA, EPA, MoH, AHRI, NVI, Academia, EARI, BETin
	Number of operational research on zoonotic disease conducted	NOHS	MoH, NVI, MOA, universities
2.2.3. Improve legal framework and enforcement.	Increase in the number of animal and animal product trade	EAA	MoA, MoTRI, EFDA, IES EWCA,
	Number of laws enforced on zoonotic diseases	EPHI-EAA	AHI, EWCA, EPA, MOA, MoH, AHRI, NVI

* National One Health Secretariat and One Health Coordination Office will be primarily responsible to coordinate all strategic actions and activities.

This pillar emphasizes the systematic identification, assessment, and mitigation of food safety risks to **safeguard public health and ensure adherence** to regulatory requirements

5.3. Pillar Three: Food Safety Risk Management

Food safety can be compromised at various levels along the food value chain, from production to consumption. Overcoming significant food safety barriers necessitate enhanced collaboration among stakeholders, improved data collection methods, increased public awareness, and a commitment to incorporating economic and political considerations into food safety policies.

Effective food safety risk management should involve multi-sectoral and multidisciplinary collaboration, with a One Health approach as a key strategy for addressing the food safety issues that arise throughout the food value chain (6). The One Health approach unites collaborative efforts to identify and address foodborne hazards at their source, whether in agricultural practices, wildlife ecosystems, or industrial processing and marketing. It advocates for proactive measures such as improved surveillance, stringent biosecurity protocols, and sustainable farming practices, ultimately reducing zoonotic disease transmission and chemical contamination.

This pillar emphasizes the systematic identification, assessment, and mitigation of food safety risks to safeguard public health and ensure adherence to regulatory requirements. It adopts a proactive, data-driven methodology to evaluate potential hazards—biological, chemical, physical, and allergenic—across all stages of the food supply chain. This includes primary production (such as plant, crop, horticultural, animal, and aquatic sources), food processing, distribution, and eventual consumption, aiming to minimize risk and uphold food safety integrity throughout the entire continuum.



Table 4. Food safety strategy pillars, objectives, actions, and KPIs May 2025

Strategic Pillar 3: Food Safety Risk Assessment and Management Strategic Plan			
Strategic Objective 3.1: Safeguard public health by implementing robust food safety risk management systems across the food supply chain.			
Strategic Actions	Key Performance Indicators	Lead Sector	Collaborating Sector
3.1.1. Strengthen Food Safety and Quality Legal and regulatory Frameworks to align with international standards, ensuring clear roles, responsibilities, and coordination among regulatory bodies.	Number of new/revised food safety and quality regulations enacted	EFDA/EAA	MoH, MOA, EPHI
	Number of developed/revised food safety guidelines and standards as per the international standards	EFDA/EAA/IES	MoH, MOA, EPHI
	Establishment of the National Food Safety Advisory Body	EFDA/EAA	MoH, MOA, EPHI/Academia
3.1.2. Enhance Food Safety and Quality Infrastructure and technology to improve food safety monitoring, testing, and certification through upgraded laboratories, inspection systems, and digital tools.	Number of established and strengthened food safety laboratories	EFDA/EAA/ EPHI	MoH, MoA
	Number of small-scale food producers adopting modern food safety technology	EAA/EFDA	EPHI, MoA, MoH
	Number of food processing technology plants practicing value addition and good food safety practices (GAP/GMP/GHP/HACCP/FSMS) through private partnership	EAA, EFDA	EPHI, MoA, EAA, EAI/IES/ EAS
3.1.3. Build human and institutional capacity to strengthen food safety authorities' and stakeholders' technical and operational capabilities through training and improved coordination.	Number of national awareness campaigns	NOHS	Key OH sectors
	Increase in food safety workforce capacity in GMP, GHP, GAP, HACCP, FSMS (trained food inspectors, food handlers in the food processing plants, street food vendors, and food safety lab technicians and experts	EFDA, EAA	EPHI, MOH, MOA, MoTRI, MoI
	Number of updated and developed food safety topics in educational curricula	MoH, MoA, MoE/ Academia	EPHI, EFDA, EAA
3.1.4. Ensure reduction of food adulteration	Number of food value chain actors obtained awareness on adulteration	EFDA, EAA	EPHI, MoA, MoH
	Number of food items inspected for adulteration	EFDA/EAA	EPHI, MoTRI, MoI
	Number of assessments on food safety and standard compliance for domestic and imported food items	EFDA/EAA	MoTRI/MoI

Table 4. Food safety strategy pillars, objectives, actions, and KPIs May 2025

Strategic Pillar 3: Food Safety Risk Assessment and Management Strategic Plan			
3.1.5. Improve Surveillance, Traceability & Risk Management to detect, track, and respond to food safety risks by establishing robust monitoring and traceability systems.	Number of intelligence-led surveillance, market surveillance, post-market surveillance, and strengthen the Ethiopian Food Safety Alert and Notification System (EFSANS)	EFDA/EAA	MoTRI, MoI
	Number of districts covered through the animal disease burden surveillance system (DOVAR, ADNIS)	MoA	EAA, AHI
	Number of regularly monitored food items for foodborne pathogens, agrochemical residues, and drug residues in the food value chain	EFDA, EAA	MoA, MoH
	Number of food items traced by the traceability system for agricultural products along the food value chain (e.g, LITS)	EFDA, EAA	MoA, MoH
3.1.6. Formalize Informal Markets to integrate them into regulatory frameworks.	Proportion of formalized street food vendors	EFDA	MoTRI, EPHI
	Number of established joint mobile inspection units	EFDA, EAA	MoH
3.1.7. Mobilize Resources to secure sustainable funding through government support, public-private partnerships, and donor engagement for food safety initiatives.	Percentage increase in funding/resources mobilized following advocacy and resource advocacy workshop	MoH, MoA	EFDA, EPHI, AHI, EAA

* National One Health Secretariat and One Health Coordination Office will be primarily responsible to coordinate all strategic actions and activities.

5.4. Pillar Four: Prevention and Containment of Antimicrobial Resistance (AMR) through One Health Approach

Implementing AMR One Health National Action Plans (NAPs) presents a significant challenge in Ethiopia. Besides, poor implementation of IPC and stewardship programs, inadequate access to antibiotics, poor laboratory infrastructure and supply chain, weak regulatory system, lack of awareness, lack of integrated surveillance system, and generation of local data on AMR for decision-making are major challenges to tackle AMR in Ethiopia.

Therefore, this pillar is targeted to prevent and contain AMR risks through a One Health approach.

Rising public awareness, enhancing knowledge and evidence through integrated surveillance and research, strengthening infection prevention and control across human and animal health settings, and optimizing the use of antimicrobials through effective stewardship practices are the priority interventions to address the issue.

In addition, it aims to strengthen national partnerships, governance structures, and resource mobilization to support AMR prevention and containment efforts at all levels.

This pillar is targeted to **prevent and contain AMR risks** through a One Health approach

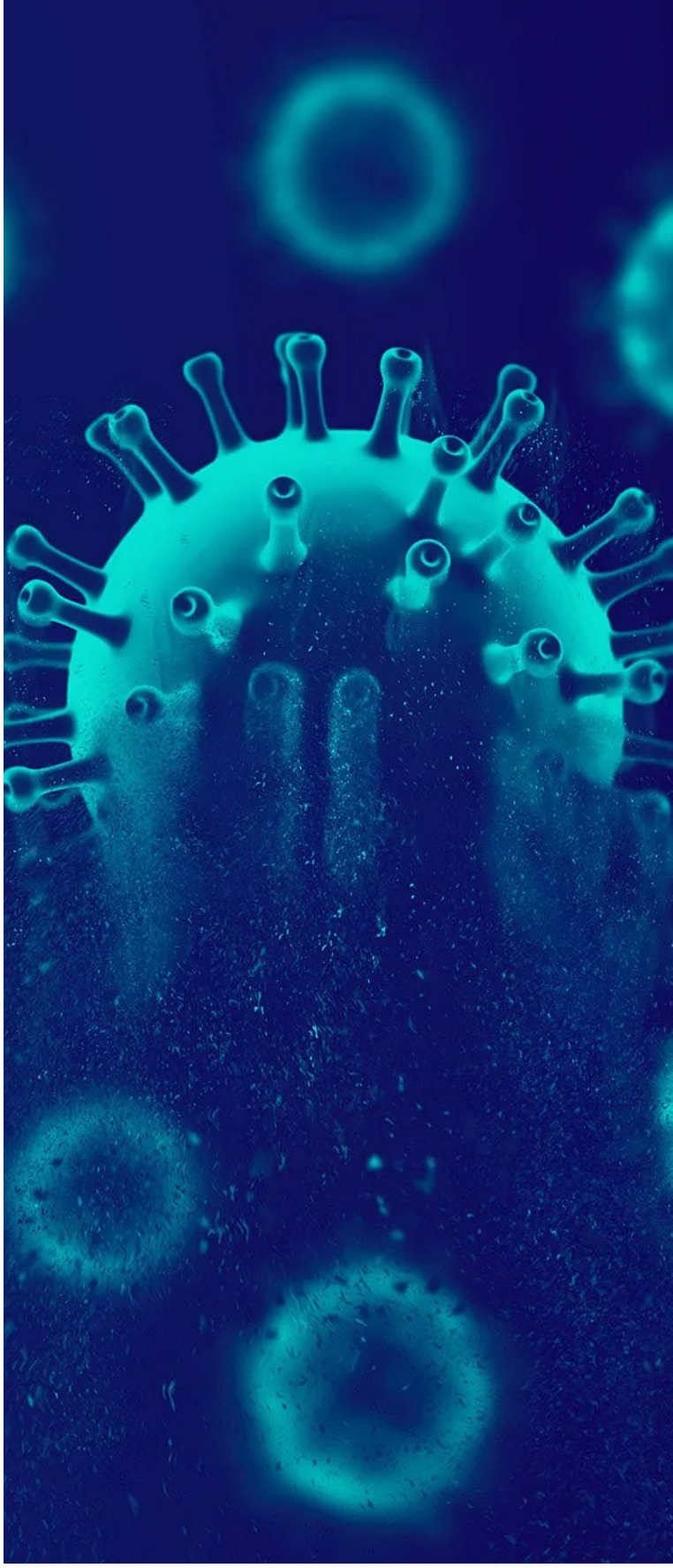


Table 5. AMR strategic pillars, objectives, actions, KPIs, and KPIs May 2025

Strategic Pillar 4: Prevention and Containment of Antimicrobial Resistance (AMR) in the One Health Approach			
Strategic Objective 4.1: Improve awareness and understanding of AMR through training, education, and community, private sector, and Health professional behavioral change			
Outcome indicator: Percentage reduction in morbidity and mortality attributed to AMR.			
Strategic Actions	Key Performance Indicators	Lead Sector	Collaborating Sector
4.1.1. Improve awareness, understanding, and empowerment of clients and communities	Number of disseminated information and education and behavior change communication (printed and audiovisual) materials by targeting diverse beneficiaries	EPHI-EFDA-MoH EAA-MoA	AHI, AHRI, NVI
	Number of conducted awareness campaigns on antimicrobial resistance (such as WAAW, AMR Day, and other events)	EFDA, MOH, EAA-MoA	AHI, EPHI, AHRI
	Number of survey reports on knowledge, attitudes, and behavioral practice assessment about antimicrobial use and antimicrobial resistance	EPHI,EFDA-MoH, EAA, AHI-MoA	Academia, AHRI,
4.1.2. Education and training on antimicrobial resistance for human, animal, plant, and environmental professionals at public and private institutions	Percentage of targeted professionals (health, veterinary, and media) and service providers (food handlers, private health facilities, vet clinics, and medicine dispensers) demonstrating improved knowledge and practices on AMR and responsible AMU	EAA, EFDA	MoA, MoH, EPHI, NVI
	Proportion of higher education institutions integrating AMR-related courses into TVET, undergraduate, and postgraduate curricula and producing graduates with demonstrated knowledge in AMU, AMR, AMS, and IPC.	MoE-Academia, MoH, MoA	EAA, EFDA, EPHI, AHRI
	Percentage of civil society and media professionals actively engaging in AMR advocacy and producing accurate information post-training.	EPHI, EFDA, EAA	MoH, MoA, Media, EMA
Strategic objective 4.2. Strengthening knowledge and evidence on AMU and AMR through surveillance and research			
Strategic Actions			
4.2.1. Establish and strengthen surveillance on AMR priority pathogen in human and animal health, feed/food safety, plant, and environment.	Number of developed joint plans to establish a surveillance system on AMR and AMU	EPHI,EAA, EFDA, AHI	MOH, MOA,
	Number of established and expanded antimicrobial resistance sentinel sites	EPHI and AHI	MOH, MOA, EAA
	Number of established platforms on AMR and AMU data and information sharing	EFDA, EAA	MOH, MOA, AHI, EPHI
	Number of databases established on AMR and AMU and generate reports among the human, animal, and plant health, food safety, and environment sectors	EFDA, EAA	MOH, MOA, AHI, EPHI
	Number of surveys conducted to monitor antimicrobial resistance trends to demonstrate the extent of the problem in human, animal, and plant health, food safety, and the environment	EPHI and AHI	MOH, MOA, EAA

Table 5. AMR strategic pillars, objectives, actions, KPIs, and KPIs May 2025 (Cont'd)

Strategic Pillar 4: Prevention and Containment of Antimicrobial Resistance (AMR) in the One Health Approach			
4.2.2. Build up the capacity for a quality management system of laboratories for human, animal, and plant health, feed and food safety, and environment testing at national, regional, and facility levels.	Number of assessments of gaps in sample collection, shipment, biosafety, biosecurity, and laboratory skills and knowledge	EPHI and AHI	MOH, MOA, AHI, EPA
	Number of a laboratory implementation plan prepared based on the identified gaps (sample collection, transport, submission, processing and confirmatory testing, training, consumables, and equipment)	EPHI and AHI	MOH, MOA, EPA and NVI
	Number of laboratories strengthened internal and external quality control	EPHI, and AHI	MOH, MOA and EAA
	Number of training sessions for professionals working at sentinel sites	EPHI and AHI	MOH, MOA, EAA-APIQC lab and EPA lab
	Number of facilities established and strengthened laboratory facilities and equipment maintenance, and calibration center	EPHI, and AHI	MOH, MOA, EPA, EAS
4.2.3. Strengthen basic and operational research to support evidence-informed decisions in AMU and AMR	Number of research studies conducted on prioritized areas (including burden and impact of antimicrobial resistance) and determining risk factors and drivers of resistance	EPHI and AHI	MOH,MOA, Academia EPA, AHRI, NVI,
	Number of research studies conducted to introduce new and improved vaccines for humans and animals	NVI and AHRI	MOH, MOA, EPHI and AHI, Academia
	Number of joint vaccinations assessed	EPHI, MoA- AHI	MOA, MoA, NVI and AHRI
	Number of research and surveillance studies conducted on antimicrobial residues in food, effluents, and waste	EAA, EFDA EPA	EPHI, AHI and MOA, MoH
Strategic objective 4.3. Enhance Infection prevention and control (IPC), regulatory system and Prudent use of antimicrobials			
Strategic Actions			
4.3.1. Strengthen and promote infection prevention and control program for human, animal and plant health and the environment	Number of established and strengthened multi-sector Task Forces on infection prevention, control, and hygiene at each level	MOH	MOA and EPA
	Number of guidelines developed for bio-risk management, effluents and manure, and waste disposal management	EPA	MOH, MOA, EFDA
	Number of conducted health care-associated infections survey at the health facility level	MOH	EPHI
	Number of conducted in-service trainings on infection prevention and control through One Health approach	MOA, MoH	EPHI, AHI, EPA

Table 5. AMR strategic pillars, objectives, actions, KPIs, and KPIs May 2025 (Cont'd)

Strategic Pillar 4: Prevention and Containment of Antimicrobial Resistance (AMR) in the One Health Approach			
4.3.2. Strengthen good animal husbandry practices and promote personal hygiene and water, sanitation and hygiene (WASH) services at community level.	Percentage increase in KAP to good animal husbandry practices and promote personal hygiene and water, sanitation, and hygiene (WASH) services at the community level	EPHI, MoA	EAA, AHI
	Number of implemented biosecurity farms	MOA	EAA, AHI
	Improve vaccination service coverage	MoH, MoA	EAA, AHI
	Increase human and animal health facilities to provide functional handwashing and bathing facilities for staff and patients	MOA, MoH	EPHI, AHI
4.3.3. Promote prudent use of antimicrobials in human and animal sectors	Number of conducted advocacy workshops for policymakers and decision-makers at all levels	MOH	EPHI, MoA
	Number of health facilities that have implemented functional antimicrobial stewardship	MOH	MoA, EFDA, EAA
	Number of conducted regular AMU and consumption surveillance at all levels	EPHI &MOA	EAA, EFDA
4.3.4. Strengthen the regulatory system in the human, animal, plant, and environment sectors	Number of developed and updated human and animal health legal frameworks	EAA and EFDA	EAA, EFDA
	Number of AMR policies updated/developed	EFDA, EAA	MOH, MOA
	Percentage of unfit-for-use drugs disposed of	EFDA, EAA	EPA

This strategic pillar is intended to **promote a shared and better understanding of the health threats** posed by unhealthy environments to wildlife, livestock, plants and people

5.5. Pillar Five: Build Socio-Ecological Resilience for Optimal Health of Human, Animal, and Plant

This strategic pillar is intended to promote a shared and better understanding of the health threats posed by unhealthy environments to wildlife, livestock, plants and people, to collaboratively engage in partnerships with private sectors, local community and other stakeholders to promote the sustainable management of nature, ensure healthy ecosystems and communities and prevent encroachment and mitigate environmental pollution through development of management plan and implementation of nature-based/ecohydrological solutions.

Additionally, it will strengthen and harmonize the existing policies and legal frameworks in human health, agriculture, environment, and water sectors.

This could enhance the alignment of the fragmented and sometimes contradictory policies, legal frameworks, guidelines and strategies in health, agriculture, natural resources management, pollution prevention and control, water resource management and climate change policies.



Table 6. Socio-ecologic resilience strategic pillars, objectives, actions, and KPIs May 2025

Strategic Pillar 5: Building socio-ecological resilience for optimal health for humans, animals, and plants			
Strategic Objective 5.1: Strengthen socio-ecological resilience through enhanced early warning systems, ecosystem management, capacity building, and transdisciplinary research			
Outcome indicator: Established system that can sustainably provide optimal health for humans, animals, and plants while providing ecosystem services Number of sector offices with enhanced socio ecological (One Health) capacity			
Strategic Actions	**Key Performance Indicators**	**Lead Sector**	**Collaborating Sector**
5.1.1. Protect, restore, and prevent the degradation of ecosystems and the wider environment	Number of manuals and guidelines developed	EPA	Universities, EPHI MOH, MOA, MoWE, EWCA
	Area of habitats restored (Hectare)	EPA	EPHI, MOH, MOA, MoWE, EWCA, Universities
5.1.2. Enhance early warning and response capacity of One Health Workforce	Number of multisectoral preparedness and response plans developed /updated	NOHS	EPA, MOH, MOA, MoWE, EWCA
5.1.3. Integrate climate and ecosystem health into pre- and in-service training	Number of courses integrating OH Competencies	NOHS	Universities, EPA, MOH, MOA, MoWE, EWCA
	Number of in-service training sessions	NOHS	Universities, EPA MOH, MOA, MoWE, EWCA
5.1.4. Enhance community awareness on prevention and control of Environmental threats	Percentage of community members improved in KAP	EPA	Universities, EPHI, MOH, MOA, MoWE, EWCA
5.1.5. Enhance Transdisciplinary research to promote socio-ecological systems (prevailing and emerging One Health challenges)	Number of mega research projects conducted	NOHS	Universities, EPA, MOH, MOA, MoWE, EWCA
Strategic objective 5.2. Strengthen the existing policies and legal framework in socio-ecological system resilience and multi-sectoral data sharing in health, agriculture, environment, wildlife and water sectors **Outcome indicator 1:** Presence of enabling policy and legal environment for harmonized One Health socio-ecological resilience **2:** Number of integrated critical data sources from One Health actors (Biodiversity, climate, water, emerging pollutants, invasive species)			
Strategic Actions			
5.2.1. Integrate socio-ecological system resilience concepts into existing policies, legal frameworks, guidelines, and strategies across sectors, including human, animal, and environmental health and water sectors	Number of legal frameworks, proclamation harmonized	EPA	EPHI, MOH, MOA, MoWE, EWCA, Universities
	Presence of One Health Policy	NOHS	EPA, MOH, MOA, MoWE, EWCA, Universities
5.2.2. Integrate Biodiversity information, climate-sensitive health threats, emerging environmental pollutants, and Ecohydrological data into a multi-sectoral data-sharing platform	Number of integrated critical data sources from One Health actors (Biodiversity, climate, water, emerging pollutants, invasive species)	NOHS	EPA, MOH, MOA, MoWE, EWCA, Universities
5.2.3. Promote prudent use of antimicrobials in human and animal sectors	Number of data sharing platforms established	NOHS	EPA, MOH, MOA, MoWE, EWCA, Universities
	Presence of data sharing policy	NOHS	EPA, MOH, MOA, MoWE, EWCA, Universities

This strategic pillar focuses on strengthening One Health RCCE to **build robust systems across all One Health sectors**

5.6. Pillar Six: Risk Communication and Community Engagement

Ethiopia has extensive experience in establishing Early Warning and Risk Communication and Community Engagement (RCCE) systems. These systems are a vital part of the public health emergency management framework and should be integrated into the One Health strategy as a key pillar.

This strategic pillar focuses on strengthening One Health RCCE to build robust systems across all One Health sectors through multisectoral collaboration, active and inclusive community participation and ownership, and leveraging digital platforms. It also enhances informed decision-making capacity of the community regarding human, animal, and environmental health risk management and health-seeking behaviors, contributing to the prevention and control of human, animal, and environmental health issues. It also focuses on strengthening health risk communication and community engagement through multisectoral collaborations, active and inclusive community participation, and ownership, while leveraging digital platforms.

It enhances the informed decision-making capacity of the community regarding human, animal, and environmental health risk management and health-seeking behaviors, contributing to the prevention and control of human, animal, and environmental health risks.



Table 7. RCCE strategic pillars, objectives, actions, and KPIs May 2025

Strategic Pillar 6: Risk Communication and Community Engagement			
Outcome indicators: 1. Decrease in the prevalence of misinformation or rumors related to the health issue being addressed by RCCE activities. 2. Increased Engagement of Local Community Leaders and Networks 3. Behavior Change Adoption Rate			
Strategic Objective 6.1: Establish comprehensive One Health RCCE systems across all sectors.			
Strategic Actions	**Key Performance Indicators**	**Lead Sector**	**Collaborating Sector**
6.1.1. Strengthen One Health RCCE Coordination Platform that includes human health, animal health, and environmental stakeholders at all levels.	Number of One Health RCCE, TWG with SOP that include human health, animal health, and environmental stakeholders at all levels.	NOHS	Key OH sectors
	Number of TWG meetings conducted	NOHS	Key OH sectors
	Number of One Health approach high-level Advocacy meeting conducted	NOHS	Key OH sectors
6.1.2. Develop One Health RCCE materials, including guidelines, training materials, key messages for priority diseases and public health conditions, and capacitate actors and stakeholders.	Availability of One Health RCCE materials (Guideline, Training materials).	NOHS	Key OH sectors
	Number of Key Messages developed (Fact Sheets, Infographics, audios, IEC etc) for Priority Diseases/public health conditions (e.g., Rabies, Anthrax, Avian Influenza, Brucellosis, Disasters etc).	NOHS	Key OH sectors
	Number of AMR key messages developed for different audiences (healthcare providers, veterinarians, and the general public).	NOHS	Key OH sectors
	Number of key messages (braille, sign language) developed, including for disabilities, different literacy levels, and diverse ethnic groups human, animal, and environmental health.	NOHS	Key OH sectors
	Number of key messages pre-test conducted for impactful and effective risk communication.	NOHS	Key OH sectors
	Number of training sessions for actors on designing and implement tailored human, animal health, and environmental protection RCCE intervention.	NOHS	Key OH sectors
	Number of stakeholders capacitated to design and implement tailored human, animal health, and environmental protection RCCE intervention.	NOHS	Key OH sectors
6.1.3 Strengthen the M&E system for One Health RCCE.	Number of stakeholders mapping and analysis conducted	NOHS	Key OH sectors
	Number of Resource mapping and mobilization.	NOHS	Key OH sectors
	Availability of standard One Health RCCE data Collection and Reporting Tools among the One Health sectors.	NOHS	Key OH sectors
	Number of One Health RCCE Review meetings conducted.	NOHS	Key OH sectors

Table 7. RCCE strategic pillars, objectives, actions, and KPIs May 2025 (Cont'd)

Strategic Pillar 6: Risk Communication and Community Engagement			
Strategic objective 6.2. Empower the community about human, animal, and environmental health risks.			
Strategic Actions			
6.2.1. Enhance informed Decision-making capacity of the community on human health, animal health, and environmental risks.	Number of Key Messages Disseminated for Priority Diseases/Public Health Conditions.	NOHS	Key OH sectors
	Number of AMR key messages disseminated for different audiences.	NOHS	Key OH sectors
	Number of key messages disseminated (braille, sign language) including disabilities, different literacy levels, and diverse ethnic group, human, animal, and environmental health.	NOHS	Key OH sectors
	Availability of social listening and compliance management system.	NOHS	Key OH sectors
	Improved utilization of multi-channel feedback systems, such as toll-free, online platforms,	NOHS	Key OH sectors
	Percent of public concerns addressed and managed on One Health issue across social media and other online platforms.	NOHS	Key OH sectors
6.2.2. Establish digital One Health RCCE system.	Number of digital tools established for real-time media scanning for news, misinformation, disinformation, rumor, and infodemic related to human, animal, and environmental health.	NOHS	Key OH sectors
	Percent of early misinformation, disinformation, and rumors related to human, animal, and environmental health risks identified	NOHS	Key OH sectors
	Percent of early misinformation, disinformation, and rumors related to human, animal, and environmental health risks addressed.	NOHS	Key OH sectors
	Number of digital key messages stored and disseminated using multiple digital channels, multiple languages	NOHS	Key OH sectors
	Improved utilization of digital key message tools by publics and the sectors.	NOHS	Key OH sectors
6.2.3. Foster community representative engagement in One Health risk management.	Number of media actively and regularly (mass and social media) engaged in One Health program implementation	NOHS	Key OH sectors
	Improved engagement of community representatives in co-designing and implementing One Health intervention	NOHS	Key OH sectors
	Number of tailored communication materials developed for community leaders on the One Health approach and prevention and control of priority public health threats	NOHS	Key OH sectors
	Number of awareness creation sessions conducted for community leaders (religious, Abba Gada, clan leaders etc) on One Health prevention measures	NOHS	Key OH sectors
6.2.4. Foster the social network engagement in One Health risk management.	Improved partnerships with local social networks and faith-based organizations to localize One Health messages and initiatives	NOHS	Key OH sectors
	Number of awareness creation sessions conducted for community leaders (religious, Abba Gada, clan leaders, etc.) on One Health prevention measures	NOHS	Key OH sectors
	Improved utilization of indigenous communication channels (Dagu, Maqa Barsiisa, Gada system) through social network engagement	NOHS	Key OH sectors

06 Institutional Frameworks and Coordination Mechanisms

The task force will convene bi-annually, or as frequently as deemed necessary, to **give directives and make major decisions**

One Health interventions are multidimensional and cross-sectoral; they require a multisectoral coordination mechanism to facilitate interactions and collaboration between sectors and guide the implementation of One Health. Therefore, to facilitate communication, coordination, and monitoring of One Health implementation in Ethiopia, a National One Health Interministerial Task Force (NOH-IMTF) shall be established, composed of all key sectoral ministers, authorities, and agencies. The four key One Health sectors, MoH, MoA, EWCA, EPA, and their respective affiliate organizations, and other sectors as needed, will be members of the NOHIMTF. The NOH-IMTF will be chaired and co-chaired by the Ministry of Health and the Ministry of Agriculture interchangeably, as needed. The high-level NOHIMTF will oversee the implementation of One Health interventions across the country and provide high-level direction.

A Regional One Health Task Force (ROHTF) shall be established at the lower level, including regional health bureaus and regional public health institutes, livestock and agriculture bureaus, environmental protection bureaus, wildlife conservation bureaus, and other sectors as needed. Health and agriculture sectors will chair/co-chair this regional One Health task force interchangeably.

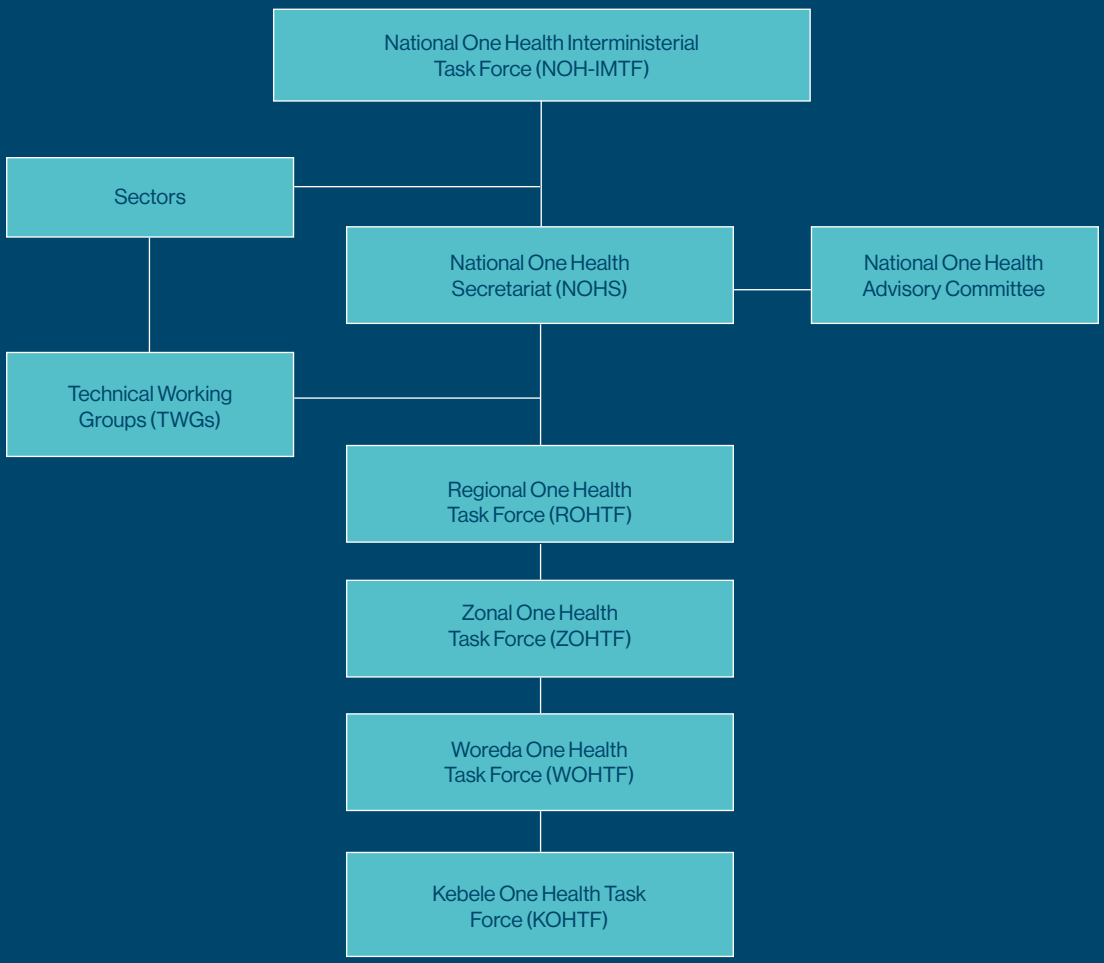
The task force will convene biannually, or as frequently as deemed necessary, to give directives and make major decisions. The IMTF will also have a standalone secretary, NOHS, with a coordination structure to serve as a hub for routine monitoring, reporting, and coordinating activities.

The NOHS coordinates and supports One Health implementing sectors and stakeholders to fulfill their duties and responsibilities. Similar structures shall be established at the regional, zonal, woreda, and kebele levels. The ROHTF is accountable to the NOH-IMTF. Similarly, structures at the zonal and woreda levels will be led by the respective health and agriculture bureau leads or zone/woreda administrators to efficiently coordinate and implement One Health. At the kebele level, a kebele-level One Health task force will be established and led by kebele administrators. The kebele health extension program coordinator and the kebele-level agriculture office will serve as the secretary for the task force.

Technical Working Groups

To facilitate task-specific implementation of One Health, different TWGs will be established, and existing ones will be strengthened. AMR TWG, Endemic Zoonotic NTD and VBD TWG, Food Safety TWG, IHR TWG, One Health risk communication and community engagement TWG, and OH M&E TWG will be in place. Each TWG will have its own ToR and clear roles and responsibilities. The general objective of the TWGs is to provide technical support for the implementation, monitoring, and evaluation of One Health in Ethiopia. The TWGs shall be composed of experts from OH implementing sectors, academia, development partners, and the private sector. Different technical working groups should regularly develop annual One Health plans and report their performance to the NOHS. Similar coordination mechanisms at the lower level will be in place.

Figure 3. One Health coordination mechanism arrangement, May 2025



07 One Health Strategy Costing

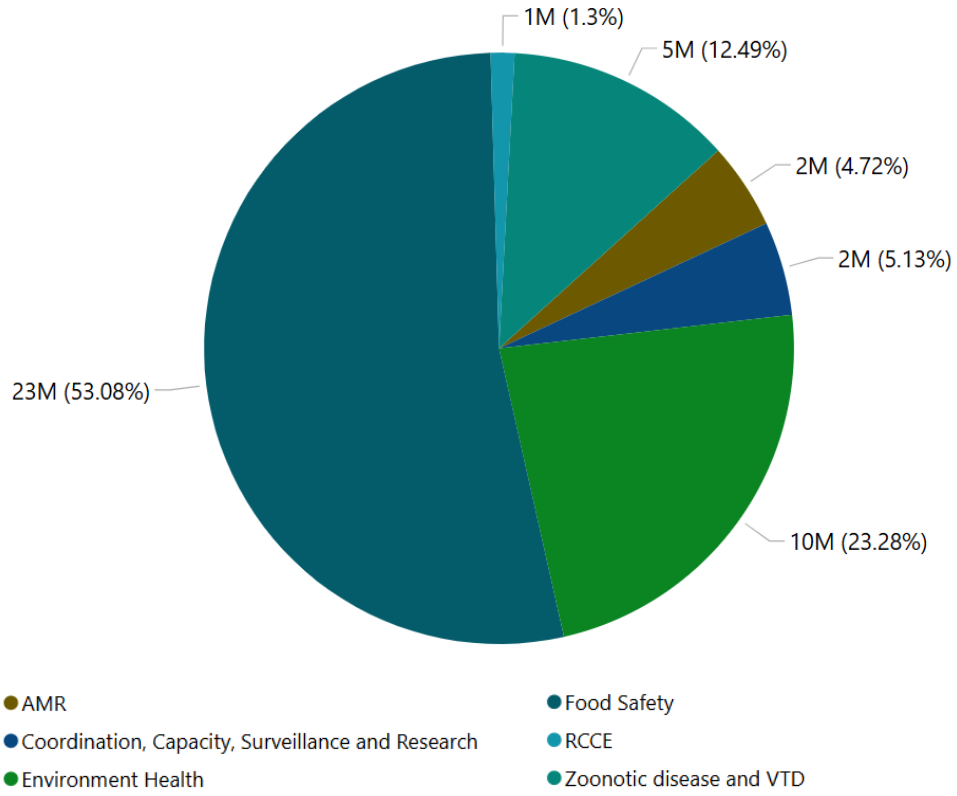
The 6 strategic pillars were organized using a different Excel sheet, along with their detailed strategic objective and actions. The strategic actions were further decomposed into specific core activities for the application of activity-based costing. Units, unit costs, quantities, and frequency were thoroughly identified. The common cost assumptions for equipment inputs, human resources, training, workshops, venues, and transportation were identified to ease and make the costing process consistent. To implement the One Health strategy in the coming five years, a minimum cost of $43,780,139 is required for the prioritized planned intervention. The total cost is the sum of the costs for each strategic pillar. To calculate this, 1 USD = 131.0086 ETB was assumed at the end of the planning period (June 2025). Existing human resources will be used to implement the strategies. If existing human resources are not sufficient to implement the strategies, additional human resources are to be considered. The cost assumptions are expected to be adjusted considering market inflation in the future.

$43,780,139

Minimum cost required to implement the One Health strategy in the coming five years, for the prioritized planned intervention



Costing by pillar





08 One Health Strategy Monitoring and Evaluation Framework

Monitoring and evaluation system for One Health will **utilize high-level performance indicators** derived from the strategic objectives outlined in the strategy

A One Health monitoring and evaluation framework (MEF) is a structured approach to assess and track the progress of One Health initiatives, ensuring they are effective and on track. This framework helps to identify gaps in implementation, track progress towards defined goals, and inform future planning and resource allocation.

Monitoring and evaluation (M&E) system for One Health will utilize high-level performance indicators (outcome and impact) derived from the strategic objectives outlined in the strategy. The output-level indicators will be developed and linked to key strategic actions. Each sector involved in One Health implementation will be expected to provide quarterly reports to the NOHS, based on agreed-upon indicators and using a standardized reporting template.

The sectors' performance evaluation will be coordinated by the NOHS using key indicators that evaluate the performance against the predetermined plan. Progress and findings that require high-level decision-makers' support will be prioritized and presented to the NOH-IMTF during its biannual conveying. Similar monitoring exercises will be conducted at regional, zonal, woreda and kebele levels. The One Health M&E system will be linked to the National Action Plan for Health Security (NAPHS) M&E systems to identify best practices and inform policy decisions, and at the same time, avoid duplication of efforts.

To strengthen the One Health M&E system, the NOHS will collaborate with all implementing sectors and stakeholders to monitor the progress of the One Health strategy implementation from the federal to the kebele levels. Predetermined, specific indicators and targets will be integrated into the existing plan and reporting system of each sector and tracked during different review meetings. Quarterly One Health data will be collected through standard reporting templates prepared in Excel, Google Sheets, or other better digital tools. Data will be disaggregated by sector, pillar, gender, period, and other disaggregation variables. Joint operational planning will be held from the federal to the lower levels, which will strengthen synergy across sectors and institutions in areas such as zoonotic diseases, antimicrobial resistance, food safety, and environmental health. Each sector will include One Health indicators in its sector-specific plans.

Quarterly, biannual and annual review meetings will be conducted to track implementation progress and timely address gaps. End-term impact evaluations will be conducted by external evaluators. A centralized One Health data surveillance and program database will be developed to compile research, survey, and programmatic data for triangulation and evidence-based decision-making. Capacity-building efforts will target One Health-implementing ministries, agencies, and institutions at all levels to strengthen data collection, analysis, and use in planning and decision-making. Regular joint supportive supervision and performance review meetings will be conducted at all levels (Annex 1).

09 Role and Responsibility of Sectors and Partners

Table 8. Role and responsibility of sectors and partners, May 2025

Category	Stakeholder	Role in One Health
Ministries	Ministry of Health	· Develop health policies and regulations relevant to One Health capacity building and research activities · Monitoring and evaluation for the CPD and One Health training activities · Resource allocation for One Health capacity building activities · Enforcing laws and health requirements · Declaration of Public Health Disaster
	Ministry of Agriculture	· Formulate agricultural policies and regulations relevant to One Health capacity building and research activities · Monitoring and evaluation the One Health training and research activities · Resource allocation for One Health capacity building and research activities · Avail relevant data/information on zoonotic and vector borne diseases, Food Safety · Jointly provide statements on issues of emerging and re-emerging zoonotic diseases
	Environmental Protection Authority	· Develop regulations for environmental protection through One Health training and research · Conduct research on One Health environmental issues such as pollution, biodiversity loss, and climate change. · Promote capacity building through workshops and training on environmental health practices. · Resource allocation for One Health capacity building and research activities · Develop policies, guidelines, standards · Environment Monitoring · Regulating and enforcing the implementation of the program
	Ethiopian Wildlife Conservation Authority	· Develop regulations for wildlife conservation strategies relevant to One Health training and research · Conduct research on wildlife conservation strategies and biodiversity preservation · Promote capacity building through workshops and training on wildlife health, protection and One Health practices. · Resource allocation for One Health capacity building and research activities · Enforcement of national and international laws and conventions · Authorization of trophy hunting, the regulation of live wildlife trade
	Ministry of Water and Energy	· Funding allocation · Policy and guidelines · Water Quality Monitoring and Data sharing · Provision of WASH services to Humans and Animals · Flood Prediction and Early warning
	Ministry of Irrigation and lowlands	· Leverages resources found in lowlands to utilize land, water, animal, and human resources.

Table 8. Role and responsibility of sectors and partners, May 2025 (Cont'd)

Category	Stakeholder	Role in One Health
Ministries	Ministry of Finance Ministry of Education Ministry of Trade and Regional Integration (MOTRI)	· Allocate funding for capacity-building initiatives across various sectors including health, agriculture, and education · Allocate funding to the National One Health Secretariat Office
		· Workforce development (Integration of OH concepts and principles into school and university curricula)
		· Product and Market QA Office (PMQAO) · Ethiopian Conformity Assessment Enterprise (ECAE) · Ethiopian Institute of Standards (IES)
Research institutes	Animal Health Institute (Sebeta) National Veterinary institute EPHI Ethiopian Agricultural research institute Regional PH and Agricultural research institutes AHRI	· Allocate funding for laboratory strengthening · Conduct research on One Health activities · Strengthen Laboratories for One Health activities · Coordination and implementation · Undertake research · Engage in surveillance · Early warning during epidemic and pandemic
	Bio and Emerging Technology Institute	· High impact research and development · Technology transfer and capacity building
	EMI	· Share relevant weather and climate-related data and information · Provide climate-informed early warning systems,
	Ethiopia Biodiversity Institute	· Develop guidelines, standards · Engaged in Biodiversity conservation · Enforcement of national and international laws and conventions
	EDRMC	· Managing national disasters · Early warning and response
	LDI (Livestock Development Institute)	· Animal production and venereal disease control, Research)
	PFSA	· Availing drugs and medical supplies for human health

Table 8. Role and responsibility of sectors and partners, May 2025 (Cont'd)

Category	Stakeholder	Role in One Health
	EFDA	· Regulating drug and food in the human sector
	EAA	· Regulate unprocessed food, animal feed and Drug
	EFP and MoD	· Security during emergencies and low enforcement
Academic institutions	Addis Ababa University Mekelle University Jimma University Jigjiga University Wollo University University of Gondar Others as needed	Resource allocation, mobilization, Collaboration and Partnerships for One Health capacity building a Interdisciplinary Curriculum Development: Design and integrate One Health concepts into academic programs, Workforce Development: Train a skilled and interdisciplinary workforce Short Courses and Certifications: Offer professional development opportunities, such as workshops, online courses, and certification programs on zoonoses, antimicrobial resistance (AMR), and outbreak response. Conduct research on One Health relevant topics · Provide awareness, advocacy, education and training · Perform community service · Developing/designing policy papers/briefs
Professional Associations	EPHA EMP & Exporters A EEHPA EVA EMLA Ethiopian Pharmaceutical Association (EPA) EMA	· Advocacy and Promotion of One Health Approach · Knowledge Sharing and Information Dissemination · Global networking and partnership · Provide training their members · Crate community awareness, advocacy and engagement · Involve on different research

Table 8. Role and responsibility of sectors and partners, May 2025 (Cont'd)

Category	Stakeholder	Role in One Health
International organizations and developmental partners	WHO FAO WOAH USAID CDC EU GIZ UNDP UNEP UKHSA RTSL Core group Embassy of Switzerland AU IBAR	· Capacity building · Assist in developing vaccination campaigns and biosecurity protocols. · Tackling AMR · Emergency preparedness and response · Support GHSA · Institutional Strengthening · Financial and technical support · Facilitating Multisectoral Collaboration · International experiences sharing (guidelines and best practices) · Create fund initiatives · International Resource mobilization · Provide international frameworks · Provide technical and financial support · RCCE · Promoting Sustainable Environmental Management · Research and Risk Assessment and policy integration · Surveillance, Early warning, · Event verification and investigation, · response, RCCE · Multisectoral coordination mechanisms
	MSF	· Emergency Medical Response to Zoonotic Disease Outbreaks\Public Health Education \ Research
	VSF-Swiss/ Germany	· Zoonotic control
	Carter center	· Zoonotic control
	Africa CDC	· Technical and financial support, border health, communication
	ILRI	· Research on Zoonotic diseases
	ICIPE	· Research on insect paste and plant disease control
	Project Hope	· Zoonosis, AMR and Laboratory capacity · One Health workforce development
	BLESS	· Work on food quality
	CEPI	· Vaccine development

Table 8. Role and responsibility of sectors and partners, May 2025 (Cont'd)

Category	Stakeholder	Role in One Health
International organizations and developmental partners	AFROHUN GOHI/ OSU UK-HSA AFENET AMREF COHESA LLRP Others not listed here	· Funding and Resource Mobilization · Technical support · Facilitation of training programs · International experiences sharing · Advocacy and Awareness · Implement AMR activities in collaboration with Government AMR actors · Provide technical and financial support · Support One Health initiatives at the lowland area
Private Sector	Pharmaceutical Companies	· Import and Developing Diagnostic Tools and Technologies · Initiate Public-Private Partnerships (PPPs) on One Health research activities · Financial Support for One Health training event · Advocacy and Corporate Social Responsibility on One Health activities
	Veterinary Input Suppliers	
	Livestock Producers and Cooperatives	
	Private diagnostic Laboratories	Support disease diagnostic testing during emergency outbreak
Community and Grassroots Stakeholders	Local Community and leaders	· Support Disease Surveillance and Early Detection at grassroot level · Support and facilitate community education · Research Participation and Knowledge Sharing at community level · Capacity for Social Mobilization and awareness creation at grassroot level
	Women Associations	
	Youth Association	
	Pastoralist and peasant Associations	
	Mass media	· Public awareness · Risk communication

10 Capacity Building Priority Areas

Table 9. National One Health priority capacity building needs, May 2025

One Health Practices	AMR	Environmental Health
· Priority diseases vaccination and control: rabies, brucellosis, anthrax, HPAI, RVF · On-farm biosecurity · Community self-help capacity development · Field-based OH staff: Paravets/veterinarians, community health workers · Kebele technical support	· Capacity-building training on all AMR-related activities. · Provide training for health professionals on AMR prevention and containment activities · Enhance the infrastructure to strengthen the laboratories and health facilities · Conduct community awareness on AMR prevention and containment.	· Artificial intelligence application and use · Early warning/Predictive modelling (Climate, hydrology, biodiversity) · Biosafety and Biosecurity · One Health Risk analysis (Assessment, management, and communication) · OH, Core competencies (Transdisciplinary, Leadership, advocacy, systems understanding, collaboration, partnership, effective communication) · Ecohydrology · Advanced technologies and methods for the detection of emerging pollutants



11 Priority National One Health Research Agenda



Table 10. National One Health priority research areas, May 2025

One Health Capacity, Surveillance, and Coordination research areas	· Digital innovations and data sharing mechanisms –how technology and data integration can improve coordination and decision-making. · Social and Behavioral Change Communication (SBCC) including community-level nudge factors · One Health Governance Structure, assessing existing coordination mechanisms, institutional frameworks, and gaps. · Evaluating the preparedness and response mechanisms for zoonotic disease outbreaks and environmental health threats. · The impact of One Health actors/partners in Ethiopia. (Investment, research, implementation). · The gaps in governance of the One Health approach, implementation at the regional level · OH coordination and collaboration gaps: Data sharing, communication, governance, infrastructure · The link between OH governance and the different OH projects · Implementation gaps at points of entry (zoonotic disease, cross-border movement, drivers of vector-borne disease, government structure, burden of disease) · The gaps in data integration across the One Health implementing sectors
Zoonotic Disease Priority Research Areas	· Zoonotic disease risk assessments and risk ranking · Specific disease control strategies · Vector-borne diseases like Rift Valley Fever · Spill over on zoonotic disease · National exercise on zoonotic disease management · Development and introduction of new and improved vaccines in human and animal health. · Disease transmission dynamics & prediction · Assess & strengthen the capacity of laboratories
Antimicrobial Resistance Priority Research Areas	· Social Behavioral Change Communication (SBCC) for AMR · Trends of AMR, extent of the problem in human, animal, plant health, and the environment · Burden and Impact of AMR, including key determinants and drivers of resistance. · Antimicrobial residues in food products, effluents, and environmental waste. · Magnitude and determinants of HAIs at different levels of the health system. · KAP towards zoonotic diseases, good animal husbandry practices, and WASH at the community level · Identification and isolation of priority pathogens, followed by antimicrobial resistance/susceptibility testing. · Integrated AMR Surveillance through the establishment of new sentinel sites. · Genomic surveillance of MDRO to track resistance patterns and transmission dynamics. · Antimicrobial residue testing in animal-source (milk, meat, fish) and plant-based foods. · Antimicrobial stewardship, including diagnostic stewardship and IPC programs. · Surveillance on environmental contaminants and residues
Key Food Safety Research Gaps	· Quantitative food safety risk assessments and risk rankings · SBCC for food safety, including nudges · National burden and economic impact of foodborne diseases caused by food hazards to inform policy development. · Food safety in wet, wholesale, and local markets · Evaluation of diagnostic and reporting systems for accurate detection of foodborne diseases. · Knowledge and practices towards food safety among professionals, grassroots-level workers, customers, and the community. · National-level food safety assessment to identify risks and gaps in the food safety system. · Development and evaluation of effective food safety interventions and risk mitigation strategies. · Food adulteration, food fraud, and chemical contaminations, including mycotoxins, food spoilage, residues, and their role in antimicrobial resistance. · Assessment of national food standards and pathways for transitioning to mandatory national standards. · Research gaps on food safety analysis at a national level.
Environment research areas	· Community Awareness in the prevention and control of environmental health threats. · Water, Sanitation, and Hygiene (WaSH) from a One Health Perspective, addressing interconnections between human, animal, and environmental health. · Wildlife interactions and OH risks, including wildlife reservoirs for priority zoonotic diseases and related spillovers · Impact of Climate Change on Health, including effects on humans, animals, and ecosystems. · Sustainable natural resource management and biodiversity conservation for ecosystem health · Assessment of alien invasive species and their impact on ecosystems and public health. · Environmental pollution assessment and mitigation strategies to reduce health risks. · Integrated and joint surveillance for early detection and response to environmental health threats. · Integration of ecohydrology principles in advancing One Health initiative

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Annexes

Annex 1. One Health Strategy Result Matrix

Priority performance, long-term outcome, and impact indicators

Table 8. National One Health strategy KPIs, February 2025

Code	Key Performance Indicator	Baseline	5 years Target	Years				
				Yr1	Yr2	Yr3	Yr4	Yr5
IM_01	Improvement in the National Health Security Index (Measured every five year)	61%	75%					75%
IM_02	Reduction in mortality and morbidity due to Rabies	-						
IM_03	Reduction in mortality and morbidity due to Anthrax	-						
IM_04	Reduction in the prevalence of foodborne illness (Salmonellosis, Campylobacteriosis)							
IM_05	Reduction in mortality attributed to AMR (21,200 baseline death)		50%					
OU_01	Reduction in mortality and morbidity due to Brucellosis	14%	8%					
OU_02	Proportion of timely detected, reported, and responded zoonotic diseases in line with 7-1-7 metrics	-	100%					100%
OU_03	Proportion of timely detected, reported, and responded foodborne diseases in line with 7-1-7 metrics	-	100%					100%
OU_04	Proportion of functional multisectoral coordination mechanisms at national and subnational levels	11	15					15
OU_05	Number of sectors Institutionalized One Health Approach (Key OH sectors institutionalized OH approach from higher to lower levels in 14 regions and nationally)		4	4	4	4	4	4
OU_06	Behavioral change intervention acceptance Rate	-	60%					60%
Strategic Objective 1.1: Enhance One Health Coordination and Governance across various One Health Implementing sectors and partners								
SO_1.1	Number of OH coordination platforms with endorsed governance structures	11	15					15
SO_1.2	Percent increase in participation of relevant sectors in OH coordination	100%	100%					100%
SO_1.3	Developed standardized communication and reporting tools	0	1					1
SO_1.4	Percent of OH sectors submitting regular reports using standard reporting system		100%					100%
SO_1.5	Number of OH sectors with signed data-sharing agreements	0	4					4

Table 8. National One Health strategy KPIs, February 2025 (Cont'd)

Code	Key Performance Indicator	Baseline	5 years Target	Years				
SO_1.6	Percentage increase in data exchange between OH stakeholders	-	100%					100%
SO_1.7	Percent of OH sectors adopted and implemented OH strategy at the national/ subnational	-	100%	70%	80%	90%	100%	100%
Strategic objective 1.2. Enhance OH capacity, joint surveillance, and research								
SO_2.1	Percent of trained OH Rapid Response Team (OHRRT) members actively engaged in outbreak response		100%					100%
SO_2.2	Number of simulation exercises completed with performance evaluation		5	1	2	3	4	5
SO_2.3	Number of One Health policies reviewed and developed to support OH engagement		1			1		
SO_2.4	Number public-private-academic partnerships established	0	5	1	2	3	4	5
SO_2.5	Proportion of reference laboratories upgraded to BSL-3 zoonotic disease diagnostics		75%					75%
SO_2.6	Number of training sessions organized in zoonotic disease diagnostics and response		10	2	2	2	2	2
SO_2.7	Number of campaigns conducted on prevailing and emerging One Health issues		10	2	2	2	2	2
SO_2.8	Number of functional integrated real-time data-sharing platform established (Zoonoses, AMR, food safety and environment)		4					4
SO_2.9	Number of data sharing policy developed		1		1			
SO_2.10	Number of research projects aligned with the national OH priorities		50	5	15	25	37	50
SO_2.11	Number of scientific evidence dissemination workshop organized		5	1	2	3	4	5
SO_2.12	Number of One Health policy dialogue conducted		5	1	2	3	4	5
Strategic Objective 2.1: Enhance Multisectoral surveillance system, Early Warning, and data sharing mechanism to Endemic, Emerging, and Re-emerging Zoonotic, NTDs and VBDs.								
SO_3.1	Number of OH key sectors with integrated and functional multisectoral surveillance systems.	-	4	4	4	4	4	4
SO_3.2	Number of the trained personnel in multisectoral surveillance, early warning and response	-	60%					60%
SO_3.3	Percentage of the population with improved KAP regarding zoonotic disease prevention and control		80%					80%

Table 8. National One Health strategy KPIs, February 2025 (Cont'd)

Code	Key Performance Indicator	Baseline	5 years Target	Years				
SO_3.4	Number of training sessions provided for animal owners on vaccination for zoonotic diseases	-	150	30	30	30	30	30
Strategic objective 2.1. Enhance multisectoral preparedness, Outbreak investigation, and diagnosis capacity to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases								
SO_4.1	Percentage of the zoonotic diseases diagnosed or identified	-	10%/yr	10%	10%	10%	10%	10%
SO_4.2	Rate of the outbreak response	0.6	1	0.7	0.8	0.9	1	1
SO_4.3	Developed models to predict outbreaks based on environmental, climatic, and epidemiological data.		5	1	1	1	1	1
SO_4.5	Number of developed contingency plans for emerging and re-emerging threats	2	5					5
SO_4.6	Number of joint outbreaks investigated	5/yr	10/yr					
SO_4.7	Number of accredited laboratories	4	6					6
SO_4.8	Number of obtained intellectual properties		3					3
SO_4.9	Number of technologies/ideas/tools transferred		2					2
SO_4.10	Success rate of the innovations		2					2
SO_4.12	Number of laws enforced on zoonotic diseases		3					3
Strategic Objective 3: Safeguard public health by implementing robust food safety risk management systems across the food value chain.								
SO_5.1	Number of new/revised food safety and quality regulations enacted	2	1	1				
SO_5.2	Number of developed/revised food safety guidelines and standards as per the international standards	0	6	1	2	2	1	
SO_5.3	Number of established and strengthened food safety laboratories	4	8	1	1	1	1	
SO_5.4	Number of food processing technology plants practicing value addition and good food safety practices (GAP/GMP/GHP/HACCP/FSMS) through private partnership	-	70					
SO_5.5	Number of national awareness campaigns conducted	-	5	1	1	1	1	1
SO_5.8	Number of food safety workforce training conducted in GMP, GHP, GAP, HACCP, FSMS (trained food inspectors, food handlers in the food processing plants, street food vendors, and food safety lab technicians and experts)	-	5300	1000	1000	1000	1000	1300

Table 8. National One Health strategy KPIs, February 2025 (Cont'd)

Code	Key Performance Indicator	Baseline	5 years Target	Years				
SO_5.9	Number of universities updated and developed food safety topics in educational curricula	-	10			10		
SO_5.11	Number of food items inspected for adulteration	-	25	25	25	25	25	25
SO_5.12	Number of assessments on food safety and standard compliance for domestic and imported food items	-	50					
SO_5.13	Number of intelligence-led surveillance, market surveillance, post-market surveillance, and strengthen the Ethiopian Food Safety Alert and Notification System (EFSANS)	-	1400					
SO_5.15	Number of regularly monitored food items for foodborne pathogens, agrochemical residues, and drug residues in the food value chain	-	10					
SO_5.16	Number of food items traced by the traceability system for agricultural products along the food value chain	-	10					
SO_5.17	Number of formalized street food vendors	-	3000	1000	1000	1000	-	-
SO_5.18	Number of established joint mobile inspection units		200					
SO_5.19	Number of advocacy workshops conducted to mobilize resources for food safety interventions.	-	5	1	2	3	4	5
Strategic Objective 4.1: Improve awareness and understanding of AMR through training, education, and community, private sector, and Health professional behavioural change								
SO_6.1	Number of disseminated information and education and behavior change communication (printed and audiovisual) materials by targeting diverse beneficiaries	4	10					
SO_6.2	Number of conducted awareness campaigns on antimicrobial resistance (such as WAAW, AMR Day, and other events)	4	20					
SO_6.3	Number of survey reports on knowledge, attitudes, and behavioral practice assessment about antimicrobial use and antimicrobial resistance	1	5					
SO_6.4	Number of training sessions provided for animal owners, food handlers and processors about safe food production and alternatives to antimicrobials in public and private institutions	2	20					

Table 8. National One Health strategy KPIs, February 2025 (Cont'd)

Code	Key Performance Indicator	Baseline	5 years Target	Years				
SO_6.5	Number of provided trainings on responsible prescribing, dispensing, use, and administration practices for human and animal health care professionals	4	15					
SO_6.6	Number of incorporated AMR courses into the curriculum of TVET, undergraduate and postgraduate curriculum of human, animal and environment professionals	0	1					
SO_6.7	Number of advocacy workshops on antimicrobial resistance for civil society groups	0	4					
SO_6.8	Percentage of higher education institutions providing pre-graduation training on AMU, AMR, AMS and IPC for human and animal health professionals	0	100%					
SO_6.9	Number of provided training on antimicrobial resistance for media professionals	4	5					
SO_6.10	Number of trainings provided on AMR for private health facility, vet clinics and medicine dispensers		10					
Strategic objective 4.2. Strengthen knowledge and evidence on AMU and AMR through surveillance and research								
SO_4.1.1	Number of developed joint plans to establish a surveillance system on AMR and AMU	0	1					
SO_7.2	Number of established and expanded antimicrobial resistance sentinel sites	30	30					
SO_7.5	Number of surveys conducted to monitor antimicrobial resistance trends to demonstrate the extent of the problem in human, animal, and plant health, food safety, and the environment	0	5					
SO_7.6	Number of assessments of gaps in sample collection, shipment, biosafety, biosecurity, and laboratory skills and knowledge	NA	2					
SO_7.7	Number of a laboratory implementation plan prepared based on the identified gaps (sample collection, transport, submission, processing and confirmatory testing, training, consumables, and equipment)	NA	2					
SO_7.8	Number of laboratories strengthened internal and external quality control	30	30					
SO_7.9	Number of training sessions for professionals working at sentinel sites	NA	20					

Table 8. National One Health strategy KPIs, February 2025 (Cont'd)

Code	Key Performance Indicator	Baseline	5 years Target	Years				
SO_7.10	Number of facilities established and strengthened laboratory facilities and equipment maintenance, and calibration center	NA	3	1		1		1
SO_7.11	Number of research studies conducted on prioritized areas (including burden and impact of antimicrobial resistance) and determining risk factors and drivers of resistance	NA	5					
SO_7.12	Number of research studies conducted to introduce new and improved vaccines for humans and animals	NA	2					
SO_7.14	Number of research and surveillance studies conducted on antimicrobial residues in food, effluents, and waste	NA	5					
Strategic objective 4.3. Enhance Infection prevention and control (IPC), regulatory system and Prudent use of antimicrobials								
SO_8.2	Number of guidelines developed for bio-risk management, effluents and manure, and waste disposal management	0	3					
SO_8.3	Number of conducted health care-associated infections survey at the health facility level	0	5					
SO_8.4	Number of conducted in-service trainings on infection prevention and control through One Health approach	0	25					
SO_8.5	Percentage increase in KAP to good animal husbandry practices and promote personal hygiene and water, sanitation, and hygiene (WASH) services at the community level	No data	50%					
SO_8.6	Number of implemented biosecurity farms	4	20					
SO_8.8	Increase human and animal health facilities to provide functional handwashing and bathing facilities for staff and patients	70%	100%					
SO_8.9	Number of conducted advocacy workshops for policymakers and decision-makers at all levels	0	25					
SO_8.10	Number of health facilities that have implemented functional antimicrobial stewardship	0	45					
SO_8.11	Number of conducted regular AMU and consumption surveillance at all levels	0	25					
SO_8.12	Number of developed and updated human and animal health legal frameworks	2	10					

Table 8. National One Health strategy KPIs, February 2025 (Cont'd)

Code	Key Performance Indicator	Baseline	5 years Target	Years				
SO_8.13	Number of AMR policies updated/developed	0	1					
SO_8.14	Percentage of unfit-for-use drugs disposed of	20%	50%					
SO_8.15	Number of inspected plants	-	20					
Strategic Objective 5.1: Strengthen socio-ecological resilience through enhanced early warning systems, ecosystem management, capacity building, and transdisciplinary research								
SO_9.1	Number of manuals and guidelines developed on biodiversity conservation and environmental pollution prevention and control	-	10					
SO_9.2	Area of habitats restored (Hectare)	-	200					
SO_9.3	Number of multisectoral preparedness and response plans developed /updated	3	8					
SO_9.4	Number of courses integrating OH Competencies	100	200					
SO_9.5	Number of in-service training sessions in modeling and prediction on invasive species, biodiversity conservation and pollution prevention and control.		50					
SO_9.6	Number of community awareness campaigns on socioecological resilience.		20					
SO_9.7	Number of mega research projects conducted		5					
Strategic objective 5.2. Strengthen and harmonize the existing policies and legal framework in socio-ecological system resilience and multi-sectoral data sharing in health, agriculture, environment, and water sectors								
SO_5.2.1	Number of legal frameworks and proclamation harmonized	0	10					
SO_5.2.2	Number of studies on data sharing and use capacity, practice and policy	-	1					
Strategic Objective 6.1: Establish comprehensive One Health RCCE systems across all sectors.								
SO_11.4	Number of One Health approach high-level Advocacy meeting conducted	-	5					
SO_11.5	Availability of One Health RCCE materials (Guideline, Training materials)	-	2					
SO_11.6	Number of Key Messages developed (Fact Sheets, Infographics, audios, IEC etc) for Priority Diseases/public health conditions (e.g., Rabies, Anthrax, Avian Influenza, Brucellosis, Disasters etc)	-	200					
SO_11.7	Number of AMR key messages developed for different audiences (healthcare providers, veterinarians, and the public)	-	200					

Table 8. National One Health strategy KPIs, February 2025 (Cont'd)

Code	Key Performance Indicator	Baseline	5 years Target	Years				
SO_11.8	Number of key messages (braille, sign language) developed including disabilities, literacy levels, and diverse ethnic groups human, animal, and environmental health.	-	200					
SO_11.9	Number of key messages pre-test conducted for impactful and effective risk communication.	-	600					
SO_11.10	Number of training sessions for actors on designing and implement tailored human, animal health, and environmental protection RCCE intervention.	-	80					
SO_11.11	Number of stakeholders capacitated to design and implement tailored human, animal health, and environmental protection RCCE intervention.	-	80					
SO_11.13	Number of Resource mapping and mobilization	-	1					
SO_11.14	Availability of standard One Health RCCE data Collection and Reporting Tools among the One Health sectors	-	2					
SO_11.15	Number of One Health RCCE Review meetings conducted	-	10					
Strategic objective 6.2. Empower the community about human, animal, and environmental health risks.								
SO_12.1	Number of Key Messages Disseminated for Priority Diseases/Public Health Conditions	-	14000					
SO_12.2	Number of AMR key messages disseminated for different audiences	-	14000					
SO_12.3	Number of key messages disseminated (braille, sign language) including disabilities, literacy levels, and diverse ethnic group, human, animal, and environmental health.	-	14000					
SO_12.4	Availability of social listening and compliance management system.	-	yes					
SO_12.6	Percent of public concerns addressed and managed on One Health issue across social media and other online platforms.	-	100					
SO_12.7	Number of digital tools established for real-time media scanning for news, misinformation, disinformation, rumor, and infodemic related to human, animal, and environmental health.	-	1					
SO_12.9	Percent of early misinformation, disinformation, and rumors related to human, animal, and environmental health risks addressed	-	100					

Table 8. National One Health strategy KPIs, February 2025 (Cont'd)

Code	Key Performance Indicator	Baseline	5 years Target	Years				
SO_12.12	Number of training courses provided for actors on utilizations and monitoring of digital tools	-	80					
SO_12.13	Number of training courses provided for stakeholders on the utilization and monitoring of digital tools	-	80					
SO_12.14	Number of media actively and regularly (mass and social media) engaged in One Health program implementation	-	250					
SO_12.15	Number of trainings provided on media house on One Health approach communication	-	250					
SO_12.16	Number of advocacy campaign programs conducted through media (Social and mass media)	-	10					
SO_12.18	Number of tailored communication materials developed for community leaders on the One Health approach and prevention and control of priority public health threats	-	5					
SO_12.19	Number of awareness creation sessions conducted for community leaders (religious, Abba Gada, clan leaders etc.) on One Health prevention measures	-	80					
SO_12.20	Number success stories published	-	20					
SO_12.21	Number of social networks (Idir, faith-based organization, communities associations) engaged in human, animal and environment health programs	-	500					
SO_12.23	Number of awareness creation sessions conducted for social networks on One Health prevention measures	-	80					
SO_12.24	Number of indigenous communication channels ((Dagu, Maqa barsiisa, Gada system) utilized for One Health community engagement	-	yes					

Annexes

Annex 2: Detail Activities

Pillar 1. Strengthen One Health Coordination and Governance, Surveillance, Capacity and Research

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Implementation scale	Implementation Year				
					I	II	III	IV	V
Strategic Objective 1. Enhance One Health Coordination and Governance									
1.1. Institutionalize OH coordination and governance at subnational level	**1.1.1** Conduct assessment of the existing One Health coordination platform at all regions	One Health coordination platform exists in all regions.	NOHS, Key OH sectors	Regional	1				
	1.1.2. Conduct a one-day sensitization workshop with 100 participants to develop regional OH coordination platform organizational structure	Advocacy workshop reports	NOHS, ROHTF	National	1				
	1.1.3. Conduct three days workshops each with 50 participants to develop the OH coordination platform organizational structure (3 days)	One Health coordination platform organizational structure developed	NNOHS, ROHTF	National	1				
	1.1.4. Organize a workshop to validate and endorse the regional OH coordination platform organizational structure	Validated and endorsed regional OH coordination platform	NOHS, ROHTF & OH collaborators	National	1				
1.2. Strengthen cross-sectoral coordination by developing standardized communication, and reporting mechanism.	**1.2.1.** Conduct a workshop to draft standardized OH communication and reporting platform	A draft OH communication and reporting platform	NOHS, OH sectors and partners	National		1			
	1.2.2. Organize a three day validation workshop to endorse the developed OH communication and reporting platform.	An endorsed OH communication and reporting platform	NOHS, OH sectors and partners	National		1			
1.3. Establish mutisectoral data-sharing mechanism	**1.3.1.** Conduct a three days workshop to draft/develop a data sharing protocol	A Draft data sharing protocol	NOHS, OH sectors and partners	National		1			
	1.3.2. Organize a three days' workshop to validate and endorse the data sharing protocol	A signed data sharing protocol	NOHS, Key OH sectors and partners	National		1			

Pillar 1. Strengthen One Health Coordination and Governance, Surveillance, Capacity and Research (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Implementation scale	Implementation Year				
					I	II	III	IV	V
1.4. Creating enabling environment for OH through developing OH policy	**1.4.1.** Organize a workshop to conduct a situational assessment to identify key evidence from secondary data	Assessment report	NOHS, OH sectors and stakeholders						
	1.4.2. Conduct a workshop to draft OH Policy document	Draft document	NOHS, OH sectors and collaborators						
	1.4.3. Organize a workshop to validate and endorse the OH policy	workshop report	NOHS, OH sectors and stakeholders						
Strategic objective 2: Enhance OH capacity, joint surveillance, and research									
2.1. Enhance coordination on rapid outbreak investigation and response team through OH approach	**2.1.1.** Organize a workshop to validate the national OH RRT training manual	Validated OH RRT training manual, workshop report, and participant list.	NOHS, Key OH sectors and OH stakeholders	National regional					
	2.1.2. Deliver 5 trainings each with 5 days for 100 participants from national and sub-national OH sectors on OH RRT	5 completed training sessions, 100 trained personnel, and training evaluation reports.	NOHS, Key OH sectors and OH Collaborators						
	2.1.3. Familiarize the National OHRRT training manual for subnational level	Disseminated training manual and orientation sessions conducted.	NOHS, OH sectors and collaborators						
	2.1.4. Organize regular simulation exercises and drills to test the readiness and effectiveness of the One Health Rapid Response Team (OHRRT) in real-time scenarios	Reports on simulation exercises, performance assessment results with action plan	NOHS, Key OH sectors and collaborators						
	2.1.5. Establish a system for evaluating the performance of the OHRRT after drills or actual incidents to gather feedback and improve future responses.	A structured evaluation system, feedback reports, and improvement action plans.	NOHS, Key OH sectors and collaborators						
	2.1.6. Engage with international rapid response teams to share best practices, lessons learned, and to foster collaboration on cross-border outbreaks.	Reports on international collaboration, documented best practices, and improved cross-border coordination plans.	NOHS, Key OH sectors and collaborators						

Pillar 1. Strengthen One Health Coordination and Governance, Surveillance, Capacity and Research (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Implementation scale	Implementation Year				
					I	II	III	IV	V
2.2. Establishing a Legal Framework for Public-Private and Academic Engagement in One Health	**2.2.1.** Identify and engage all relevant stakeholders, including government agencies, private sector entities, academic institutions, and non-governmental organizations involved in One Health initiatives.	Stakeholder database, engagement reports, and established working groups.	NOHS, Key OH sectors and collaborators						
	2.2.2. Review existing laws and policies related to public health, animal health, and environmental protection to identify gaps and areas for improvement.	Policy review report with identified gaps and recommendations.	NOHS, Key OH sectors and collaborators						
	2.2.3. Develop formal platforms or partnerships to foster collaboration among stakeholders. These could include forums, committees, or working groups focused on specific One Health issues.	Established and functional multi-sectoral forums, committees, or working groups.	NOHS, Key OH sectors and collaborators						
	2.2.4. Engage with private sectors, international organizations, and frameworks on One Health to align local efforts with global best practices and standards.	Partnership agreements, signed MOUs, and collaborative action plans.	NOHS, Key OH sectors and collaborators						

Pillar 1. Strengthen One Health Coordination and Governance, Surveillance, Capacity and Research (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Implementation scale	Implementation Year				
					I	II	III	IV	V
2.3. Develop a harmonized national framework for zoonotic disease prevention and control by prioritizing high-impact diseases and strengthening laboratory diagnostic capacity through infrastructure investment, workforce training, and improved disease surveillance systems.	**2.3.1.** Identify and analyze prevalent zoonotic diseases within the country.	List of priority ZDs, risk assessment reports, & epidemiological data.	NOHS, Key OH sectors and collaborators						
	2.3.2. Gather epidemiological data on disease transmission, prevalence, and impact on human and animal populations.	Comprehensive epidemiological reports and disease trend analyses.	NOHS, Key OH sectors and collaborators						
	2.3.3. Create detailed SOPs for the diagnostic process of priority zoonotic diseases and outbreak response protocols.	Standardized SOPs developed and approved for diagnostic procedures.	NOHS, Key OH sectors and collaborators						
	2.3.4. Distribute these SOPs to all relevant stakeholders, including laboratories and healthcare facilities, with training on implementation.	SOP dissemination records and training completion reports.	NOHS, Key OH sectors and collaborators						
	2.3.3. Prioritize funding for upgrading at least 5 regional reference laboratories for zoonotic disease.	Funding proposals, approved budget, upgraded laboratories.	NOHS, OH sectors and collaborators						
	2.3.4. Implement biosafety and biosecurity measures in laboratories to handle infectious agents safely.	Established biosafety protocols, trained personnel, and compliance reports.	NOHS, Key OH sectors and collaborators						
	2.3.5. Develop/update a standardized training curriculum on zoonotic disease diagnostics for laboratory staff and health professionals.	Standardized training curriculum and training materials.	NOHS, Key OH sectors and collaborators						
	2.3.6. Organize biannual workshops and training sessions for at least 200 personnel across the country.	Workshop reports, participant lists, and training evaluation summaries.	NOHS, Key OH sectors and collaborators						
	2.3.7. Design and implement a nationwide campaign focusing on zoonotic disease prevention strategies, targeting farmers, veterinarians, and communities.	Campaign materials, outreach reports, and public awareness assessment data.	NOHS, Key OH sectors and collaborators						

Pillar 1. Strengthen One Health Coordination and Governance, Surveillance, Capacity and Research (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Implementation scale	Implementation Year				
					I	II	III	IV	V
2.4. Strengthen integrated surveillance and reporting system for priority zoonotic diseases through OH approach	**2.4.1.** Conduct training on collaborative surveillance	Training materials and trained personnel list.	NOHS, OH sectors & collaborators						
	2.4.2. Establish a real-time data-sharing platform that connects human health, animal health, and environmental health agencies for zoonotic disease monitoring.	Functional real-time data-sharing platform with active users.	NOHS, Key OH sectors and collaborators						
	2.4.3. Set up 10 sentinel surveillance sites in high-risk areas for continuous monitoring of zoonotic diseases.	Operational sentinel surveillance sites with regular reporting.	NOHS, Key OH sectors and collaborators						
	2.4.4. Form national and regional task forces comprising representatives from health, agriculture, and environmental sectors to coordinate efforts.	Established and functional task forces with meeting minutes.	NOHS, Key OH sectors and collaborators						
2.5. Enhance research on prioritized thematic areas of OH.	**2.5.1.** Collaborate with stakeholders like academic institutions, government agencies, NGOs, and private sector partners to align research priorities and resources.	Research collaboration agreements and prioritized research agenda.	NOHS, Key OH sectors and collaborators						
	2.5.2. Identify and prioritize areas of research for operational research in the shared health threat of human-animal-environment interface	Research priority list and study proposals.	NOHS, OH sectors and collaborators						
	2.5.3. Improve researchers' skills with training on operational research methods in key thematic areas.	Training reports and training researcher database.	NOHS,OH sectors and collaborators						
	2.5.4. conduct spillover research in the wild-domestic-human interface sites	Research findings report and policy recommendations.	NOHS, OH sectors and collaborators						
	2.5.5. Engage policymakers to integrate research findings into public health strategies, ensuring operational research shapes responses to health threats.	Policy briefs, research-based recommendations, and policy adoption records.	NOHS, Key OH sectors and collaborators						

Pillar 2. Enhancing Preparedness, Detection, and Response to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborators	Implementation scale	Implementation Year				
						I	II	III	IV	V
Strategic Objective 1: Enhance Multisectoral surveillance system, Early Warning, and data sharing mechanism to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases										
1.1. Enhance multisectoral surveillance system, Early Warning, Response, and data sharing mechanism	1.1.1. Create networks that include human health, animal health, and environmental sectors for sharing data.	Multisectoral Network Establishment Document, Training report	EPHI-MOA	EWCA, EPA, MoH, AHI, AHRI, NVI	National	1				
	1.1.2. Implement standardized data collection and reporting protocols across sectors to ensure consistency.	Comprehensive Needs Assessment Report, Standardized Data Collection Protocol Document, Training Program report	EPHI-MOA	EWCA, EPA, MoH, AHI, AHRI, NVI	National	1				
	1.1.3. Conduct regular training for health professionals, Environmentalists and veterinarians on surveillance techniques and zoonotic disease identification.	Comprehensive Training Manual, Training report	EPHI-MOA-EPA	EWCA, MoH, AHI, AHRI, NVI	National and regional	1		1	1	
	1.1.4. Provide hands-on training in data collection and analysis for local health workers, Environmentalists and veterinarians.	Comprehensive Training Manual, Training report	EPHI-MOA-EPA	EWCA, MoH, AHI, AHRI, NVI	National	1	1		1	
	1.1.5. Invest in laboratory capacity for rapid and accurate diagnostic testing of zoonotic pathogens. Procure laboratory reagents, consumables and equipment	Laboratory Need Assessment Report, Procurement Plan, Procurement and distribution report	EPHI-MOA	EWCA, EPA, MoH, AHI, AHRI, NVI	National and regional	1				
	1.1.6. Develop and regularly update response plans that include clear protocols for outbreak management and containment. Conduct 5 days workshop for 30 participants	Comprehensive Outbreak Management Protocol Document,	EPHI-MOA	EWCA, EPA, MoH, AHI, AHRI, NVI	National	3				

Pillar 2. Enhancing Preparedness, Detection, and Response to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborators	Implementation scale	Implementation Year				
						I	II	III	IV	V
1.2. Prevent and control zoonotic spillover at the human-animal-wildlife interface	**1.2.1.** Develop and improve surveillance systems for early detection of zoonotic diseases and wildlife, livestock and human population.	Comprehensive Needs Assessment Report, Surveillance Framework Guidelines	EPHI-MOA	EWCA, EPA, MoH, AHI, AHRI, NVI	National, regional		1	1		
	1.2.2. train health professionals and researchers in zoonotic disease identification and management.	Comprehensive Training Manual, Training report	EPHI-MOA	EWCA, EPA, MoH, AHI, AHRI, NVI	National	1	1		1	
	1.2.3. Improve accessibility and availability of vaccines for zoonotic diseases.	Vaccine Needs Assessment Report, Procurement Plan, procurement and distribution report	EPHI-NVI-MoA	EWCA, EPA, MoH, AHI, AHRI, NVI	National	1	1			
	1.2.4. engage local communities in conservation and disease prevention efforts.	Community Needs Assessment Report, Hands-on Workshops reports	EPHI-MOA	EWCA, EPA, MoH, AHI, AHRI, NVI	community	1	1			
	1.2.5. improve laboratory facilities and diagnostic tools to ensure accurate and quick detection of endemic zoonotic diseases.	Laboratory Needs Assessment Report, Procurement Plan, Procurement and distribution report	EPHI-AHI	EWCA, EPA, MOA, MoH, AHRI, NVI	National		1			

Pillar 2. Enhancing Preparedness, Detection, and Response to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborators	Implementation scale	Implementation Year				
						I	II	III	IV	V
1.3. Improve community awareness and sociocultural behavior on zoonotic disease	**1.3.1.** implement educational programs to inform communities about endemic zoonotic diseases.	Comprehensive Educational Materials, Community Engagement Strategy, Training reports	EPHI-MOA	EWCA, EPA, MoH, AHI, AHRI, NVI	community	1				
	1.3.2. Involve local leaders and organizations in outreach efforts to improve community participation.	Community Engagement Strategy Document, Community, partnership Strategy Document, Training report	EPHI-MOA	EWCA, EPA, MoH, AHI, AHRI, NVI	community		1			
	1.3.3. Involve local communities in surveillance and reporting to increase awareness and early detection.	Comprehensive Educational Materials, Community Engagement Strategy, Training reports	EPHI-MOA	EWCA, EPA, MoH, AHI, AHRI, NVI	community		1			
	1.3.4. develop and disseminate information education and communication materials based on communication developed.	Comprehensive Communication Strategy Document, Workshop report	EPHI-MOA	EWCA, EPA, MoH, AHI, AHRI, NVI	National, regional		1	1	1	
	1.3.6. Facilitate Community Mobilization for Treatment and vaccination Campaigns	Community Mobilization Strategy Document, Community Engagement Toolkit	EPHI-AHI-EPA	EWCA, MOA, MoH,AHRI, NVI		1	1	1	1	1

Pillar 2. Enhancing Preparedness, Detection, and Response to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases (Cont'd)

Strategic Objective 2: Enhance multisectoral preparedness, Outbreak investigation, and diagnosis capacity to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases										
2.1. Improve multisectoral preparedness, Outbreak investigation, and diagnosis capacity	**2.1.1.** Develop models to predict outbreaks based on environmental and epidemiological data.	Comprehensive Literature Review, Report Data Collection Framework, Model Development Guidelines, Developed model	EPHI-MOA-EPA	EWCA, EPA, MOA, MoH, AHI, AHRI, NVI		1		1		
	2.1.2. Strengthen systems for alerting health authorities and communities about potential outbreaks.	Comprehensive Needs Assessment Report, Early Warning System Framework and community engagement plan	EPHI-MOA	EWCA, EPA, MoH, AHI, AHRI, NVI		1		1		
	2.1.3. Foster collaboration among human, animal, and environmental health sectors to create integrated outbreak investigation guidelines for managing zoonotic diseases	Comprehensive Needs Assessment Report, Integrated Outbreak Investigation Protocol Document, Partnership Development Plan	EPHI-MOA-EPA	EWCA, MoH, AHI, AHRI, NVI				1	1	
	2.1.4. Develop and update standard guidelines and protocols for rapid response to outbreaks, including containment and mitigation strategies.	Comprehensive Needs Assessment Report, Rapid Response Protocol Document, Partnership Development Plan	EPHI-MOA-EPA	EWCA, MoH, AHI, AHRI, NVI				3		
	2.1.5. Educate communities about zoonotic diseases, their transmission, and prevention measures to reduce the risk of outbreaks.	Comprehensive Educational Materials, Community Engagement Strategy, Training reports	EPHI-MOA	EWCA, EPA, MoH, AHI, AHRI, NVI		1		1		
	2.1.6 Prepare contingency plan for emerging and emerging pathogen threats (risk assessment, prioritization, response and communication	Pathogen Prioritization Framework, Preparedness and Response Action Plan				3				

Pillar 2. Enhancing Preparedness, Detection, and Response to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases (Cont'd)

Strategic Objective 2: Enhance multisectoral preparedness, Outbreak investigation, and diagnosis capacity to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases										
	2.1.7 Conduct simulation exercises to test multisectoral preparedness for for priority diseases of interest	Objectives and Scope Definition, Scenario and document Development, Conducting the Simulation Exercise	EPHI-MOA	EWCA, EPA, MOA, MoH, AHI, AHRI, NVI		2				
	2.1.8 Upgrade existing laboratories to meet accreditation standards for diagnosis of specific NTDs/VBDs	Assessment of Current Laboratory Capabilities, Internal Audits and external evaluation	EPHI-AHI	EWCA, EPA, MOA, MoH, AHI, AHRI, NVI				1		
	2.1.9. Procure and distribute essential diagnostic equipment and supplies to selected laboratories	Needs Assessment and laboratory prioritization, procurement and distribution	EPHI-AHI	EWCA, EPA, MOA, MoH, AHI, AHRI, NVI		1				
2.2 Promote Multisectoral Research and Innovation	**2.2.1.** enhance research on new diagnostics, treatments, and vaccines.	Comprehensive Needs Assessment Report, training manual and training report	EPHI-AHI-AHRI	EWCA, EPA, MOA, MoH, NVI	#REF!		1			
	2.2.2. create a network that brings researchers from public health, veterinary science and environment.	Comprehensive Needs Assessment Report, Network Structure Guidelines	EPHI-AHI-AHRI	EWCA, EPA, MOA, MoH, NVI	National	1				
	2.2.3 develop grant programs specifically for multisectoral research projects addressing zoonotic disease.	Grant Program Framework Document, Grant Application Guidelines and Template	EPHI-AHI-AHRI	EWCA, EPA, MOA, MoH, NVI		1				
	2.2.4 Establish a platform for sharing research data related to zoonotic diseases to facilitate collaboration and innovation. Conduct 5-day workshop for 30 participants	Research Data Sharing Platform, Launch Plan for the Data Sharing Platform	EPHI-AHI-AHRI	EWCA, EPA, MOA, MoH, NVI			1			
	2.2.5. collaborate with stakeholders to identify and prioritize key research questions and areas related to zoonotic diseases.	Stakeholder Mapping and Engagement Strategy, Prioritized Research Agenda Document	EPHI-AHI-AHRI	EWCA, EPA, MOA, MoH, NVI		1				

Pillar 2. Enhancing Preparedness, Detection, and Response to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases (Cont'd)

Strategic Objective 2: Enhance multisectoral preparedness, Outbreak investigation, and diagnosis capacity to Endemic, Emerging, and Re-emerging Zoonotic, Neglected Tropical, and Vector-Borne Diseases										
2.3. Improve legal framework and enforcement	**2.3.1.** Improve and enforce legal frameworks on animal and animal product movement.	Comprehensive Legal Framework Analysis Report, Training manual and training report	MoA	EWCA, EPA, MOA, MoH, AHI, AHRI, NVI		1				
	2.3.2. organize workshops with stakeholders including farmers, veterinarians and health care providers to discuss legal obligations and best practices.	Comprehensive Legal Obligations Document, Best practice training manual and training report	MoA	EWCA, EPA, MOA, MoH, AHI, AHRI, NVI			1			
	2**.3.3.** Provide training and resources to improve the ability of enforce zoonotic disease laws.	Comprehensive Legal Framework Document, Training manual reports	EPHI-MOA	EWCA, EPA, MOA, MoH, AHI, AHRI, NVI			1			
	2.3.4. launch campaign to educate the public about the legal framework related to zoonotic diseases.	Workshop Planning, participant listing, Workshop launching	EPHI-MOA	EWCA, EPA, MOA, MoH, AHI, AHRI, NVI			1			
	2.3.5. Advocate for policy change based on the evidence and best practices to strength the legal framework related to zoonotic disease.	Comprehensive Legal Framework Analysis Report, Training manual and training report	EPHI-MOA	EWCA, EPA, MoH, AHI, AHRI, NVI			1		1	

Pillar 3: Food Safety Risk Assessment and Management

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborators	Implementation scale	Implementation Year				
						I	II	III	IV	V
Strategic Objective 1. To safeguard public health by implementing robust food safety risk management systems across the entire food supply chain.										
1.1. Strengthen food safety and quality Legal & Regulatory Frameworks	**1.1.1.** Develop food law and enforce existing regulations	Draft and enact legislation, covering all food value chains	MoA/MoH through NOHS	EFDA, EAA, ESI	National	Q2				
	1.1.2. Develop and enforce comprehensive food safety policy, guideline and standards align with international standards	Draft and enact legislation, covering all food value chains	MoA/MoH through NOHS	EFDA, EAA	National	Q3				
	1.1.3. Establish a National Food Safety Advisory body	Establish a National Food Safety advisory body that provides independent scientific advise and communication on the existing and emerging risks	FSTWG of NOH	EFDA, EAA	National	Q4				
	1.1.4. Stakeholder workshops to validate reforms	Organize Four validation workshop	MoA/MoH through NOHS	EFDA, EAA	National	Q4	Q1			
1.2. Enhance food safety and quality infrastructure & technology	**1.2.1.** Strengthen and establish food safety laboratories	Equip 4 labs (2 national/ 2 regional) to test food safety, quality and standards including pathogens, AMR and residues	EAA, EFDA, AHI	EFDA, EAA	National/ Regional		Q1			
	1.2.2. Promote modern food technology	Support 700 small-scale food producers to adopt cold chains and pasteurization to reduce post-harvest losses	EAA, EFDA, AHI, NVI	EFDA, EAA	National/ Regional		Q3			
	1.2.3. Promote value addition through food processing technology	Support establishment of food processing plants at national/regional level through private partnership	EAA/ MoA,EFDA/ MoH	EFDA, EAA	National/ Regional	Q4	Q1			

Pillar 3: Food Safety Risk Assessment and Management (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborators	Implementation scale	Implementation Year				
						I	II	III	IV	V
1.3. Build Institutional Capacity	**1.3.1.** Nationwide awareness campaigns	Reach 1,000,000 farmers/community via radio/TV campaigns on food safety and quality issues	MoA, MOH, EAA, EFDA, AHI, NVI,E-PHI, BoA	EFDA, EAA	National/ Regional	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4
	1.3.2. Train food inspectors	Certify 1400 food inspectors in GAP/ GMP/HACCP/FSMS	EAA, EFDA, IES	EFDA, EAA	National/ Regional	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4
	1.3.3. Capacity building to food safety lab technicians and experts	Train 200 lab technicians	EAA, EFDA, AHI, NVI	EFDA, EAA	National/ Regional		Q2			
	1.3.4. Update and develop food safety in educational curricula	integrate food safety issue curricula in 10 university	EAA, MoA, EFDA, MoH, MoE	EFDA, EAA	National	Q4				
1.4. Improve Surveillance, traceability & Risk Management	**1.4.1.** Strengthen Ethiopian Food Safety Alert and Notification System (EFSANS), intelligence led surveillance, market and post-market surveillance	Deploy EFSANS; achieve real-time outbreak reporting across health/agriculture sectors.	EFDA/MoH	EFDA, EAA	National/ Regional	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4
	1.**4.2.** Strengthen the animal disease burden surveillance system (DOVAR, ADNIS)	Perform Animal disease burden surveillance DOVAR in every month and ADNIS daily basis	MoA/EAA	EFDA, EAA	National	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4
	1.4.3. Develop monitoring plan for food borne pathogens, agrochemical residues, drugs residues, mechanisms of AMR in the food value chain	Reduce food borne pathogens, agrochemical residues, drugs residues, AMR transmission in the food value chain	EFDA/EAA/ IES(Ethiopia Standards Institute)	EFDA, EAA	National/ Regional	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4
	1.4.4. Establish a traceability system for all agricultural products along the food value chain	Implement and expand the ETLITS (Ethiopian Livestock Identification and Traceability System)	MoA	EFDA, EAA,	National/ Regional		Q1			
	1.4.5. strengthen and integrate information communication systems including food recall	Achieve real-time food borne disease outbreak reporting along the food value chain.		EFDA, EAA	National/ Regional		Q1			

Pillar 3: Food Safety Risk Assessment and Management (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborators	Implementation scale	Implementation Year				
						I	II	III	IV	V
1.5. Formalize Informal Markets	**1.5.1.** Licensing for informal/street food vendors	License informal/ street food vendors		EFDA, EAA	National/ Regional		Q2	Q2		
	1.5.2. Training on food safety and quality	Train 200 street food		EFDA, EAA						
	1.5.2. Establish joint mobile inspection units	Deploy 100 mobile units; achieve compliance in the food supply chain via tax incentives.	EAA, EFDA	EFDA, EAA,MoTRI	National		Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4
	1.5.3. Establish Model food markets	Establish 32 model markets (2 per regions and administrative cities) with standardized storage and waste disposal system	EFDA, EAA, MoTRI	EFDA, EAA	National/ Regional		Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4
1.6. Mobilize Resources	1.6.1. Ensure dedicated funding for food safety risk management from gov't and non-gov't	Allocate annual budget from government source and international donors to food safety risk management	MoA/ MoH,EFDA,EAA, MoF, international partners	EFDA, EAA	National	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4	Q1,2,3 & 4

Pillar 4: Prevention and Containment of Antimicrobial Resistance (AMR) in One Health Approach

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborating sector	Implementation scale	Year				
						I	II	III	IV	V
Strategic Objective 1. Improve awareness and understanding of AMR through training, education and community, private sector and Health professional behavioral change.										
1.1. Improve awareness, understanding and empowerment of clients and communities	1.1.1. Develop and disseminate information and education and behavior change communication (printed and audio visual) materials targeting diverse beneficiaries	Number of developed and disseminated materials	MOH, MOA, EPA	EFDA, EAA, EPHI, AHI, AHRI and medias	National and regional	2	2	2	2	2
	1.1.2. Conduct antimicrobial resistance awareness campaigns regularly (such as World Antimicrobial Awareness Week, AMR Day and other events)	Number of campaigns conducted	MOH, MOA, EPA	EFDA, EAA, EPHI, AHI, AHRI and medias	National and regional	3	3	3	3	3
	1.1.3. Conduct survey (health professionals and community) to assess knowledge, attitudes and behavioral practice about antimicrobials use and antimicrobial resistance through One Health approach	Number of survey reports	MOH	MOA and EPA and affiliated institutions, regional counterparts, academia. Partners and professional associations	National and regional	1	1	1	1	1
	1.1.4. Provide training for animal owners, food handlers and processors about safe food production and alternatives to antimicrobials in public and private institutions	Number of training sessions	MOA	MOH and EPA and affiliated institutions, regional counterparts, academia. Partners and professional associations	National and regional	5	5	5	5	5

Pillar 4: Prevention and Containment of Antimicrobial Resistance (AMR) in One Health Approach (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborating sector	Implementation scale	Year				
						I	II	III	IV	V
1.2. Education and training on antimicrobial resistance for human, animal, plant and environmental professionals at public and private institutions	**1.2.1.** Conduct training on responsible prescribing, dispensing, use, and administration practices for human and animal health care professionals including for health and agriculture extension workers	Number of training courses provided (per sector)	MOH, MOA	MOH and EPA and affiliated institutions, regional counterparts, academia. Partners and professional associations	National and regional	3	3	3	3	3
	1.2.2. Incorporate antimicrobial resistance in course contents of TVET, undergraduate and postgraduate curriculum of human, animal and environment professionals	Incorporated AMR issue into the curriculum	MOH	MOE, MOH, MOA, EPA and academia	National		1			
	1.2.3. Conduct advocacy workshops on antimicrobial resistance for civil society groups	Number of workshops per sector	MOH, MOA, EFA	Each key sectors affiliated institutions and regional counterparts, civic societies and Medias are major collaborators	National and regional	1		1	1	1
	1.2.4. Facilitate and provide a pre-graduation training on antimicrobial use, resistance and stewardship and infection prevention and control for human and animal health professionals	Percent of higher education institutions providing pre-graduation training	MOH, MOA	EPA, Academia, MOE	National					100%
	1.2.5. Provide training on antimicrobial resistance for media professionals (print and electronic)	Number of trainings provided	MOH	Each key sectors affiliated institutions and regional counterparts, civic societies and Medias are major collaborators	National	1	1	1	1	1
	1.2.6. provide training for private health facility, vet clinics and medicine dispensers on AMR	Number of trainings provided	MOH&MOA	Each key sectors affiliated institutions and regional counterparts, civic societies and Medias are major collaborators	National and regional	2	2	2	2	2

Pillar 4: Prevention and Containment of Antimicrobial Resistance (AMR) in One Health Approach (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborating sector	Implementation scale	Year				
						I	II	III	IV	V
Strategic objective 2. Strengthening knowledge and evidence on AMU and AMR through surveillance and research										
2.1. Establish and strengthen surveillance on AMR priority pathogen in human and animal health, feed/food safety, plant and environment	**2.1.1.** Develop joint plan to establish surveillance system on AMR and AMU	Number of joint plans	EPHI	EFDA, EPHI and AHI	National and regional	1				
	2.1.2. Establish and expand antimicrobial resistance sentinel sites	Number of AMR sentinel sites	EPHI and AHI	MOH, MOA, and EPA	National, regional, district	6	6	6	6	6
	2.1.3. Establish AMR and AMU data and information sharing platform	Number of established platforms	EFDA &EAA	MOH, MOA, and EPA	National	1	1	1	1	1
	2.1.4. Establish an AMR and AMU database and generate reports among the human, animal and plant health, food safety and environment sectors	Number of Database established	EFDA &EAA	MOH, MOA, and EPA	National		1			
	2.1.5. Monitor antimicrobial resistance trends to demonstrate the extent of the problem in human, animal and plant health, food safety and the environment	Number of surveys reports conducted	EPHI and AHI	MOH, MOA, EAA QC lab, EPA lab	National	1	1	1	1	1

Pillar 4: Prevention and Containment of Antimicrobial Resistance (AMR) in One Health Approach (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborating sector	Implementation scale	Year				
						I	II	III	IV	V
2.2. Build up the capacity for a quality management system of laboratories for human, animal and plant health, feed and food safety and environment testing at national, regional and facility levels	**2.2.1.** Conduct assessment of gaps in sample collection, shipment, biosafety, biosecurity and laboratory skills and knowledge	Number of assessment reports	EPHI and AHI	MOH, MOA, EAA QC lab, EPA lab	National	1		1		
	2.2.2. Prepare a laboratory implementation plan based on the identified gaps (sample collection, transport, submission, processing and confirmatory testing, training, consumables and equipment)	Number of plans prepared	EPHI	MOH, MOA, AHI, EPA	National		1		1	
	2.2.3. Strengthen internal and external quality control of laboratories	Number of laboratories	EPHI, and AHI	MOH, MOA, EPA and NVI	National	6	6	6		6
	2.2.4. provide training for professionals working at sentinel sites	Number of training session	EPHI and AHI	MOH, MOA and EAA	National, regional, district					
	2.2.5. Establish and strengthen laboratory facilities and equipment maintenance and calibration center	Number of facilities	EPHI, and AHI	MOH, MOA, EAA QC lab and EPA lab	National	1	1	1	1	1

Pillar 4: Prevention and Containment of Antimicrobial Resistance (AMR) in One Health Approach (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborating sector	Implementation scale	Year				
						I	II	III	IV	V
2.3. Strengthen basic and operational research	**2.3.1.** Conduct research on prioritized areas (including burden and impact of antimicrobial resistance) and determining risk factors and drivers of resistance	Number of research studies conducted	EPHI and AHRI	MOH, MOA, EPA,AHI,NVI, academia and professional associations	National	1	1	1	1	1
	2.3.2. Conduct research to introduce new and improved vaccines for humans and animals	Number of research studies conducted	NVI and AHRI	MOH, MOA, EPHI and AHI	National		1		1	
	2.3.3. Undertake joint vaccination assessment to identify gaps on selected human and animal diseases	Number of joint vaccination assessment report	NVI and EPHI	OH, MOA, EPHI, AHI and AHRI	National	1	1	1	1	1
	2.3.4. Conduct research and surveillance on antimicrobial residues in food, effluents and waste	Number of research studies conducted	EPA	EPHI, AHIand EAA QC lab	national	1	1	1	1	1
Strategic objective 3. Enhance Infection prevention control (IPC), regulatory system and Prudent use of antimicrobials										
3.1. Strengthen and promote infection prevention and control program for human, animal and plant health and the environment	**3.1.1.** Establish and strengthen multisector task force on infection prevention and control and hygiene	Multisector task force established at each level	MOH	MOA and EPA	national		1			
	3.1.2. Develop guidelines for bio-risk management, effluents and manure, and waste disposal management	Number of guidelines developed	EPA	MOH, MOA,EFDA AND RRBs	national		1		1	1
	3.1.3 Conduct health care-associated infections survey at the health facility level	Number of surveys conducted	MOH	EPHI and RHBs	national	1	1	1	1	1
	3.1.4. Conduct in-service training on infection prevention and control through One Health approach	Number of trainings provided	MOA	RHBs	national and regional	4	4	4	4	4

Pillar 4: Prevention and Containment of Antimicrobial Resistance (AMR) in One Health Approach (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborating sector	Implementation scale	Year				
						I	II	III	IV	V
3.2. Strengthen good animal husbandry practices and promote personal hygiene and water, sanitation and hygiene (WASH) services at community level	**3.2.1.** Conduct assessment of knowledge, attitudes, behaviors and practices on good husbandry practice	Number assessment report	MOA	EAA, AHI and regional counter part	national	1	1	1	1	1
	3.2.2. Implement biosecurity guidelines in selected farm production systems	Number of production farm implementing biosecurity guidelines	MOA	EAA, AHI and regional counter part	national and regional	4		5	5	5
	3.2.3 Develop bio-risk guidelines for animal feed processing and dairy and beef production, food handlers and traders	Number of guidelines developed	MOA	EAA, AHI and regional counter part	national		1	1	1	1
	3.2.4 Improve vaccination service coverage, supply and cold chain management	Percentage coverage	MOA	NVI and Regional counter part	national and regional	4%	5%	6%	7%	80%
	2.2.5. Support and enforce human and animal health facilities to provide functional handwashing and bathing facility for staff and patients	Percentage of health facilities having functional bathing facilities for staff and patients	MOH	RHBS and Health facilities	national, regional, district and community	7%	8%	%	100%	

Pillar 4: Prevention and Containment of Antimicrobial Resistance (AMR) in One Health Approach (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborating sector	Implementation scale	Year				
						I	II	III	IV	V
3.3. Promote prudent use of antimicrobials in human and animal sectors	**3.3.1.** Conduct advocacy workshop for policymakers and decision-makers at all level	Number of advocacy workshops conducted	MOH	MOA and EPA	national	1	1	1	1	1
	3.3.2. Provide training on antimicrobial stewardship for DTC and the AMS Committees and other professionals	Number of training sessions	MOH &MOA	EAA, EFDA and RHBs	national and regional	2	2	2	1	2
	3.3.3. Monitor implementation of functional antimicrobial stewardship at human and animal health facilities	Number of health facilities that have implemented functional antimicrobial stewardship	MOH &MOA	EAA, EFDA and RHBs	national and regional	1	1	1	1	1
	3.3.4. Conduct regular antimicrobial use and consumption surveillance at all level	Number of antimicrobial use and consumption surveillance reports	EAA and EFDA	MOH, MOA,RRBs and RHBs	national	1	1	1	1	1

Pillar 4: Prevention and Containment of Antimicrobial Resistance (AMR) in One Health Approach (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborating sector	Implementation scale	Year				
						I	II	III	IV	V
3.4. Strengthen regulatory system in human, animal, plant, and environment sectors	**3.4.1.** Develop, update and enforce legal frameworks for antimicrobials and laboratory supply use	Number of developed and updated human and animal health legal frameworks	EAA and EFDA	EPA nad RRBs	national	2	2	2	2	2
	3.4.2. Develop AMR policy	Number of developed policies	MOH	MOA, EPA,EPHI,EAA and EFDA	national				1	
	3.4.3. Conduct market surveillance and control of antimicrobials in human and animal sectors	Number of conducted surveys	EAA and EFDA	RRBs and Branches	national		2	2	2	2
	3.4.4 Ensure proper disposal of unfit-for-use antimicrobials and laboratory supplies	Amount of disposed AMS	EAA and EFDA	EPA and RRBs	national and regional	1	1	1	1	1
	3.4.5. Monitor waste disposal and discharge practices at manufacturing, food processing plants and human and animal health care settings	Number of inspected plants	EPA	EAA and EFDA	national and regional	4	4	4	4	4
	3.4.6. Provide trainings on good prescribing and dispencing practice for human and animal professionals	No of training sessions	EFDA and EAA	MOH, MOH and RRBs	national and regional	2	2	2	2	2

Pillar 5. Building socio-ecological resilience for optimal health for human, animal and plants

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible	Responsible Sectors	Implementation scale	Implementation Year				
						I	II	III	IV	V
Strategic Objective 1. Strengthen socio-ecological resilience through enhanced early warning systems, ecosystem management, capacity building, and transdisciplinary research										
1.1. Protect, restore and prevent the degradation of ecosystems and the wider environment	**1.1.1.** Develop environmental pollution prevention and control guidelines	Number of Guideline developed	IHR-OH office	Universities, EPA, MOH, MOA, MoWE, EWCA, Development partners	National	1				
	1.1.2. Develop ecohydrological /nature-based solutions for the mitigation of Environmental pollutants	Number of Guideline developed	IHR-OH office	MoWE, Universities, EPA, MOH, MOA, MoWE, EWCA, Development partners	National	1				
	1.1.3. Review the current waste generation rate and develop management system	Number of assessment report	IHR-OH office	Universities, EPA, MOH, MOA, MoWE, EWCA,	National	1				
	1.1.4. Review protected areas and develop wetland management systems	Number of management system	IHR-OH office	EWCA, Universities, EPA, MOH, MOA, MoWE , private sectors, NGOs	National	1				
	1.1.5. Conduct site-specific management and restoration for biosphere reserve, protected areas, and wetlands of socio-ecological importance	Hectare of habitat restored	IHR-OH office	EPA, Universities, MOH, MOA, MoWE, EWCA, private sectors, Development partners	National		50	50	50	50
	1.1.6. Engage community members in sustainable natural resources, waste management and restoration activities	No. of awareness creation sessions	IHR-OH office	EWCA, Universities, EPA, MOH, MOA, MoWE , private sectors, NGOs	National, regional, district and community		2	2	2	2
	1.1.7. Engage private sector in sustainable natural resources, waste management and restoration activities	Number of Private sectors engaged	IHR-OH office	EWCA, Universities, EPA, MOH, MOA, MoWE , private sectors, NGOs	National, regional, district and community	1	1	1	1	1
	1.1.8. Review and develop guidelines on the inclusion of gender and social-cultural issues on the management of natural resources and prevention and control of environmental pollution	Guideline developed	IHR-OH office	EPA, Universities, MOH, MOA, MoWE, EWCA, Development partners	National	1				

Pillar 5. Building socio-ecological resilience for optimal health for human, animal and plants (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible	Responsible Sectors	Implementation scale	Implementation Year				
						I	II	III	IV	V
1. 2. Enhance early warning and response capacity of One Health Workforce	**1.2.1**. Conduct desk review on the existing early warning and response capacity of OH workforce	Assessment report	IHR-OH office	EPA, Universities, MOH, MOA, MoWE, EWCA, Development partners	National	1				
	1.2.2. Develop guidelines and manuals on socio-ecological risk prediction and response	Guideline and manuals developed	IHR-OH office	Universities, EPA, MOH, MOA, MoWE, EWCA, Development partners	National	1				
	1.2.3. Integrate predictive modeling and ealy warning system in pre-service education system	No. courses/short courses	IHR-OH office	Universities, EPA, MOH, MOA, MoWE, EWCA	National (HEIs)	1				
	1.2.4. Conduct training on prediction and response mechanisms to socio-ecological health risks (Invasive species, hydrological events, water and vector borne diseases) to OH Workforce	No. of training participants	IHR-OH office	EPA, Universities, MOH, MOA, MoWE, EWCA	National, regional and district	2	2	2	2	2
	1.2.5. Develop, implement, and monitor multi-sectoral preparedness and response plan to emerging and prevailing socio-ecological threats (Chemical hazards, flood, drought, landslides, conflict/displacement, epidemics, pandemic threats	No. of preparedness and response plan	IHR-OH office	MOH, DRMC, EPA, Universities, MOA, MoWE, EWCA, Private sectors, Development partners	National	1		1		1

Pillar 5. Building socio-ecological resilience for optimal health for human, animal and plants (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible	Responsible Sectors	Implementation scale	Implementation Year				
						I	II	III	IV	V
1.3. Integrate climate and ecosystem health into pre- and in-service training	**1.3.1.** Conduct a desk review of pre-service curricula to examine climate change and ecosystem health contents	Review Report	IHR-OH office	Universities, EPA, MOH, MOA, MoWE, EWCA	National	1				
	1.3.2. Identify key competencies to be integrated into the existing curricula	Guideline on OH competencies	IHR-OH office	Universities, EPA, MOH, MOA, MoWE, EWCA	National		1			
	1.3.3. Conduct capacity gaps assessment on climate change and ecosystem health among OH workforce /Inservice-professionals, module preparation validation, and training	Assessment report	IHR-OH office	MOH, Universities, EPA, MOA, MoWE, EWCA, Development partners	National		1			
	1.3.4. Conduct advocacy meeting for Higher learning institutions (e.g. Deans, Heads	No. of participants	IHR-OH office	Universities, EPA, MOH, MOA, MoWE, EWCA	National (HEIs)		2	3	3	2
	1.3.5. Conduct training on the integration technique to course instructors and program coordinators	No. of course instructors	IHR-OH office	Universities, EPA, MOH, MOA, MoWE, EWCA	National (HEIs)		2	3	3	2
	1.3.6. Implement and monitor the integration of climate and ecosystem health into the curricula of medical, public health, water, veterinary, environmental health and life science disciplines	Number of programs/ courses integrating Climate change and ecosystem health	IHR-OH office	Universities, EPA, MOH, MOA, MoWE, EWCA	National (HEIs)		2	3	3	2
	1.3.7. Conduct training on the identified competency gaps (1.3.3) to in-service professionals	Number of training session	IHR-OH office	Universities, EPA, MOH, MOA, MoWE, EWCAs	National and regional			2	2	1

Pillar 5. Building socio-ecological resilience for optimal health for human, animal and plants (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible	Responsible Sectors	Implementation scale	Implementation Year				
						I	II	III	IV	V
1. 4. Enhance community awareness on prevention and control of Environmental threats	**1.4.1.** Conduct baseline study on the KAP of the local community on causes, effects, prevention and control of prevailing and emerging environmental threats	Assessment report	IHR-OH office	MOH, EPA, MOA, MoWE, EWCA, Universities	National	1				
	1.4.2. Map out and review existing tools used to raise public awareness	Tools developed for raising awareness	IHR-OH office	MOH, EPA, MOA, MoWE, EWCA, Universities	National		1			
	1.4.3. Prepare appropriate education and communication materials	Education/communication materials developed	IHR-OH office	MOH, Universities, EPA, MOA, MoWE, EWCA	National and regional		1			
	1.4.4. Conduct awareness creation on prevention and control of prevailing and emerging environmental threats	No. of training participants	IHR-OH office	MOH, Universities, EPA, MOA, MoWE, EWCA	National and regional			1		
1.5. Enhance Transdisciplinary research to promote socio-ecological systems (prevailing and emerging One Health challenges)	**1.5.1.** Conduct meeting/ workshops to identify priority research areas	Research thematic areas identified	IHR-OH office	MOH/EPHI, EPA, MOA, MoWE, EWCA, Universities	National		1			
	1.5.2. Conduct transdisciplinary research at the human-animal-environment interface to generate evidence that informs policy, guide interventions, legal and regulatory frameworks	No. of transdisciplinary research conducted	IHR-OH office	MOH/EPHI, EPA, MOA, MoWE, EWCA, Universities	National		1	1	1	
	1.5.3. Organize research findings for policy dialogue and formulation	Policy brief /policy recommendation	IHR-OH office	MOH/EPHI, EPA, MOA, MoWE, EWCA	National					1

Pillar 5. Building socio-ecological resilience for optimal health for human, animal and plants (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible	Responsible Sectors	Implementation scale	Implementation Year				
						I	II	III	IV	V
Strategic Objective 2: Strengthen and harmonize the existing policies and legal framework in socio-ecological system resilience and multi-sectoral data sharing in health, agriculture, environment and water sectors.										
2.1. Integrate socio-ecological system resilience concepts into existing policies, legal frameworks, guidelines, and strategies across sectors, including human, animal and environmental health and water sectors	**2.1.1.** Review of the existing policies and strategies and identify gaps	Assessment report	IHR-OH office	MOH/EPHI, EPA, MOA, MoWE, EWCA, Universities	National and regional	1				
	2.1.2. Conduct workshop to validate the review report	Workshop report	IHR-OH office	MOH/EPHI, EPA, MOA, MoWE, EWCA, Universities	National and regional	1				
	2.1.3. Facilitate the harmonization and alignment of policies	Policy Brief	IHR-OH office	MOH/EPHI, EPA, MOA, MoWE, EWCA, Universities	National and regional	1				

Pillar 5. Building socio-ecological resilience for optimal health for human, animal and plants (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible	Responsible Sectors	Implementation scale	Implementation Year				
						I	II	III	IV	V
2.2. Integrate Biodiversity information, climate-sensitive health threats, emerging environmental pollutants, Ecohydrological data etc into a multi-sectoral data-sharing platform	**2.2.1.** Conduct a baseline assessment on the existing data capturing and sharing platform	Assessment report	IHR-OH office	MOH/EPHI, EPA, MOA, MoWE, EWCA, Universities	National	1				
	2.2.2. Develop policy and guidelines to facilitate multi-sectoral data sharing	Data sharing Guideline developed	IHR-OH office	MOH/EPHI, EPA, MOA, MoWE, EWCA, Universities	National	1				
	2.2.3. Advocacy meetings with policy and decision makers	Signed MOU between sector offices	IHR-OH office	MOH/EPHI, EPA, MOA, MoWE, EWCA, Universities	National		1			
	2.2.4 Establish national multi-sectoral data-sharing platform mainly for early warning systems for climate-sensitive risks, invasive species and biodiversity information system	Multi-sectoral data-sharing platform established	IHR-OH office	MOH/EPHI, EPA, MOA, MoWE, EWCA, Universities	National		1			

Pillar 6. Risk Communication and Community Engagement

Strategic Objective and Actions	Detailed activities	Deliverables	Respon-sible Sector	Collab-orating sector	Implementation scale	Implementation Year				
						I	II	III	IV	V
Strategic Objective 1. Establish comprehensive One Health RCCE systems across all sectors.										
1.1. Strengthen One Health RCCE Coordi-nation Platform that includes human health, animal health, and environmental stakeholders at all levels.	**1.1.1** Establish a One Health RCCE TWG that includes human health, animal health, and environmental stakeholders at all levels.	Functional One Health RCCE TWG	OHS	One Health sectors	National, regional, district	2	2	2	2	2
	1.1.2. Conduct regular TWG meetings	Number of TWG meetings	OHS		National, regional, district	2	2	2	2	2
	1.1.3. Develop/revise One Health RCCE Coordination SOPs	One Health RCCE coordination SOPs	OHS		National, regional, district	1		1		
	1.1.4. One Health approach high-level Advocacy	No of High-level advo-cacy sessions	OHS		National, regional, district, community	1	1	1	1	1
1.2. Develop One Health RCCE mate-rials, including guidelines, training materials, key messages for priority diseases and public health conditions, and capacitate actors and stakeholders.	**1.2.1.** Develop/Refine One Health RCCE materials (Guideline, Training materials, SOPs,)	Guidelines, Training Materials and SOPs	OHS	One Health sectors	National, regional	1		1		
	1.2.2. Develop Key Messages (Fact Sheets, Info-graphics, IEC) for Priority Diseases/public health conditions (e.g., Rabies, Anthrax, Avian Influenza, Brucellosis, Disasters	Fact Sheets, Info-graphics, IEC etc	OHS		National, regional	40	40	40	40	40
	1.2.3. Develop AMR key messages for different audiences (healthcare providers, veterinarians, and the general public)	Fact Sheets, Info-graphics, IEC etc) of AMR	OHS		National, regional	40	40	40	40	40
	1.2.4. Develop key messages (braille, sign language) including disabilities, different literacy levels, and diverse ethinic group human, animal, and environ-mental health,	Key messages (braill, sign language)	OHS		National, regional	40	40	40	40	40
	1.2.5. Conduct key message pre-test for impactful and effective risk communication.	Number of key message pre-test conducted	OHS		National, regional	120	120	120	120	120
	1.2.6. Capacitate the actors and stakeholders to design and implement tailored human, animal health and environmental protection RCCE intervention.	Number of training sessions conducted	OHS	OH sectors	National, regional	16	16	16	16	16

Pillar 6. Risk Communication and Community Engagement (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborating sector	Implementation scale	Implementation Year				
						I	II	III	IV	V
1.3. Strengthen the M&E system for One Health RCCE.	1.3.1. Conduct stakeholders mapping and analysis	Stakeholder analysis matrix	OHS	OH sectors	National, regional	1	1	1	1	1
	1.3.2. Resource mobilization	Resource Mobilized	OHS		National, regional			1		
	1.3.3. Establish standard One Health RCCE data Collection and Reporting Tools among One Health sectors	Availability of standard RCCE Data collection and reporting tool	OHS		National, regional	2				
	1.3.4. Conduct the One Health RCCE Review meeting	Number of Review meetings conducted	OHS		National, regional	2	2	2	2	2

Pillar 6. Risk Communication and Community Engagement (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborating sector	Implementation scale	Implementation Year				
						I	II	III	IV	V
Strategic Objective 2. Empower the community about human, animal, and environmental health risks.										
2.1. Enhance informed Decision-making capacity of the community on human health, animal health, and environmental risks.	2.1.1. Disseminated Key Messages (Fact Sheets, Infographics, IEC etc) for Priority Diseases/public health conditions (e.g., Rabies, Anthrax, Avian Influenza, Brucellosis, disasters	Number of Fact Sheets, Infographics, IEC disseminated	OHS		National, regional	2800	2800	2800	2800	2800
	2.1.2. Disseminate AMR key messages for different audiences (healthcare providers, veterinarians, and the general public)	AMR key messages disseminated	OHS		National, regional, district, community	2800	2800	2800	2800	2800
	2.1.3. Disseminate key messages (braill, sign language) including disabilities, different literacy levels, and diverse ethnic group human, animal, and environmental health,	key messages (brail, sign language) disseminated	OHS		National, regional, district, community	2800	2800	2800	2800	2800
	2.1.4. Developing/customizing social listening and compliance management system on human health, animal health and environmental by developing community feedback mechanism	Number of social listening and compliance management platform developed	OHS	OH sectors	National, regional, district, community	x	x	x	x	x
	2.1.5. Enhanced utilization of multi-channel feedback systems, such as toll-free, online platforms,	Improved utilization of multi-channel feedback systems	OHS		National, regional, district, community	X	X	X	X	X
	2.1.6. Address and manage public concerns on One Health issues across social media, and other online platforms.	% of addressed or managed public concerns, Addressed public concerns on One Health issues across social media, online platforms.	OHS		National, regional, district, community	100%	100%	100%	100%	100%

Pillar 6. Risk Communication and Community Engagement (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborating sector	Implementation scale	Implementation Year				
						I	II	III	IV	V
2.2. Establish digital One Health RCCE system.	**2.2.1.** Establish digital tool for real-time media scanning for news, misinformation, disinformation, rumor and infodemic related to human, animal, and environmental health.	Availability of digital tools for real-time media scanning	OHS		National, regional	1				
	2.2.2. Identify and address early misinformation, disinformation, and rumors related to human, animal, and environmental health risks	% of addressed early misinformation, disinformation, and rumors	OHS		National, regional	100%	100%	100%	100%	100%
	2.2.3. Establish digital key messages store, and disseminate using multiple digital channels, multiple language (e.g: Automated messaging system via SMS, WhatsApp, Telegram Bot, and other apps platforms)	digital key messages stored and disseminated	OHS	OH sectors, AI Institute	National, regional	1	1	1	1	1
	2.2.4. Monitor the utilization of digital key message tools by publics and sectors	Improved utilization of digital key message tools	OHS		National, regional, district, community	X	X	X	X	X
	2.2.5. Capacitate actors and stakeholders on utilizations and monitoring of digital tools	Number of training session conducted	OHS		National, regional, district, community	16	16	16	16	16
	2.2.6. Engage media actively and regularly (mass, and social media) in One Health program implementation	Number of media coverages given	OHS		National, regional, district, community	50	50	50	50	50
	2.2.7. Capacitate media house on One Health approach communication	Number of training session conducted	OHS	OH sectors	National, regional, district, community	1	1	1	1	1
	2.2.8. Conduct advocacy campaigns programs through media (Social and mass media)	Number of advocacy campaigns conducted	OHS		National, regional, district, community	50	50	50	50	50

Pillar 6. Risk Communication and Community Engagement (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborating sector	Implementation scale	Implementation Year				
						I	II	III	IV	V
2.3. Foster community representative engagement in One Health risk management.	2.3.1. Actively engage community representatives in co-designing and implementing on human, animal and environment health interventions	Number of community engagement sessions conducted; Community-led interventions conducted	OHS	OH sectors	National, regional, district, community	1	1	1	1	1
	2.3.2. Develop tailored communication materials for community leaders on One Health approach and prevention and control of priority public health threats	Number of awareness communication materials developed	OHS		National, regional, district, community	X	X	X	X	X
	2.3.3. Conduct awareness creation for community leaders (religious, Abba Gada, clan leaders etc) on One Health prevention measures	Number of awareness creation sessions conducted	OHS		National, regional, district, community	16	16	16	16	16
	2.3.4. Establish/customize mechanisms for inclusive community engagement in human health, animal health and environmental protections.	Availability of inclusive community engagement sessions	OHS	OH sectors	National, regional, district, community	1	1	1	1	1
	2.3.5. Identifying community engagement success stories for experience sharing and documentation	Success stories published	OHS	OH sectors	National, regional, district, community	4	4	4	4	4

Pillar 6. Risk Communication and Community Engagement (Cont'd)

Strategic Objective and Actions	Detailed activities	Deliverables	Responsible Sector	Collaborating sector	Implementation scale	Implementation Year				
						I	II	III	IV	V
2.4. Foster the social network engagement in One Health risk management.	**2.4.1.** Engagement of social networks (Idir, faith-based organization, communities associations) in human, animal and environment health programs	Number of social networks engagement sessions	OHS	OH sectors	National, regional, district, community	1	1	1	1	1
	2.4.2. Establish partnerships with Local Social Networks and faith-based organizations to localize One Health messages and initiatives.	Number of local social networks working in partnership	OHS		National, regional, district, community	X	X	X	X	X
	2.4.3. Conduct awareness creation for social networks on One Health prevention measures	Number of awareness creation sessions conducted	OHS		National, regional, district, community	16	16	16	16	16
	2.4.4. Utilize the indigenous communication channels ((Dagu, Maqa barsiisa, Gada system) through social networks engagements	Improved utilization of indigenous communication channels	OHS		National, regional, district, community	X	X	X	X	X
	2.4.5. Identifying social networks success stories and conduct experience sharing	Experience shared	OHS		National, regional, district, community	4	4	4	4	4
	2.4.6. Document social networks success stories	Success stories published	OHS		National, regional, district, community	4	4	4	4	4

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National One Health Five Year Strategic Plan

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