



Implementation Plan

National Antimicrobial Resistance
Containment Strategic Plan 2018-2022



IMPLEMENTATION PLAN

***THE NATIONAL ANTIMICROBIAL RESISTANCE CONTAINMENT
STRATEGIC PLAN 2018 – 2022***

THE KINGDOM OF ESWATINI

**Mbabane
October 2020**

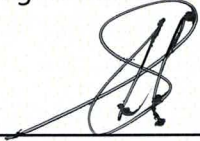
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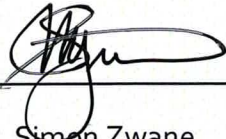
FOREWORD

Globally, antimicrobial resistance (AMR) - the ability of pathogenic microbes to develop resistance to the effects of an antimicrobial medication – is on the rise worsened with the minimal development of new antimicrobial agents by pharmaceutical companies. Irrational use of antimicrobials medicines in human health, veterinary, agriculture, livestock, and improper disposal of residues have contributed to the emergence of AMR. The Government of Eswatini (GOE) considers AMR containment a priority; with a national goal to contain AMR by developing an implementation plan for the National AMR Containment Strategic Plan through multi-sectoral collaboration.

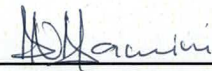
The implementation plan details how antimicrobial resistance (AMR) will be prevented, monitored, and contained using a One Health Approach across the Ministry of Health (MOH), Ministry of Agriculture (MOA), Ministry of Natural Resources and Energy (MONRE), and other stakeholders in Eswatini. This document outlines the activities that will be conducted to implement the strategic objectives of the National Antimicrobial Resistance Containment Strategic Plan 2018 – 2022; with an extension of activities to 2025.



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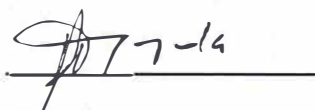
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ACKNOWLEDGEMENTS


The GOE would like to thank the UK Department of Health and Social Care for the support to strengthen the AMR surveillance under its Fleming Fund Grants Programme. Special thanks go to the Fleming Fund Country Grant for supporting the development of this implementation plan through Mott MacDonald and ICAP at Columbia University. Additional support was provided by the World Health Organization.



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LIST OF ABBREVIATIONS

AH	Animal Health
AMC	Antimicrobial Consumption
AMR	Antimicrobial Resistance
AMRCC	Antimicrobial Resistance Containment Committee
AMS	Antimicrobial Stewardship
AMU	Antimicrobial Use
ASLM	African Society for Laboratory Medicine
BCC	Behavior Change Communication
CANGO	Coordinating Assembly of Non-Governmental Organizations
CDC	Centers for Disease Control and Prevention
DVS	Division of Veterinary Services
EEA	Eswatini Environmental Authority
FAO	Food and Agriculture Organization
FESBC	Federation of Swazi Business Community
GOE	Government of Eswatini
GLASS	Global Antimicrobial Resistance Surveillance System
HH	Human Health
HIV	Human Immunodeficiency Virus
ICAP	ICAP at Columbia University
IDSR	Integrated Disease Surveillance and Response
IEC	Information Education Communication
IPC	Infection Prevention Control
IPCC	International Plant Protection Convention
M&EP	Monitoring and Evaluation Plan
MICT	Ministry of Information Communication and Technology
MOA	Ministry of Agriculture
MOH	Ministry of Health
MONRE	Ministry of Natural Resources and Energy
MOU	Memorandum of Understanding
MPED	Ministry of Planning and Development
MTD	Ministry of Tinkhundla & Development
NAP	National Antimicrobial Resistance Containment Strategic Plan
OHC	One Health Committee
OI	Opportunistic Infection
OIE	World Organization for Animal Health
PTC	Pharmaceuticals and Therapeutics Committee
REPS	Royal Eswatini Police Service
SDG	Sustainable Development Goals
SRA	Eswatini Revenue Authority
SWASA	Eswatini standards authority
TB	Tuberculosis

THO	Traditional Healers Organization
TOR	Terms of Reference
TWG	Technical Working Group
UNEP	United Nations Environmental Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHA	World Health Assembly
WHO	World Health Organization

EXECUTIVE SUMMARY

Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi, and parasites change over time and no longer respond to antimicrobial medicines; making infections harder to treat, and increasing the risk of disease spread, severe illness, and death. Due to the increased global concern on AMR, the World Health Assembly (WHA) called upon member states to develop national action plans (NAPs) to contain AMR. A holistic and multisectoral (One Health) approach is needed to contain the increasing threat of AMR because antimicrobials used to treat various infectious diseases in animals may be the same or be like those used in humans. Resistant bacteria arising either in humans, animals or the environment may spread from one to the other, and from one country to another.

To curb and contain AMR, the Government of Eswatini appointed an AMR Containment Committee (AMRCC) with members from the Ministry of Health (MOH), Ministry of Agriculture (MOA), Ministry of Natural Resources and Energy (MONRE), FAO and WHO country office representatives in 2016. The AMRCC then developed a National AMR containment strategic plan 2018-2022 as a foundation for activities to curb and contain AMR.

This document, the implementation plan of the national AMR containment strategic plan 2018-2022, outlines the plan to implement the strategic objectives, activities, and monitoring and evaluating progress of activities. This implementation plan is to be executed for the period of October 2020 to September 2025 and takes into consideration the following:

- Translating the strategic objectives to activities and actions.
- Aligning the implementation plan with existing policies, regulations, and guidelines, and identifying opportunities for improvement.
- Facilitating national coordination of the implementation of AMR surveillance strategies in the different sectors.
- Monitoring the implementation plan outputs and collating experiences for future adjustments.

The implementation plan will be operationalized by the technical departments in the respective Ministries with support of implementing partners on key areas, and support from other AMR stakeholders locally and internationally.

Under this implementation plan, five strategic objectives will be implemented:

Strategic Objective-1: *Improve awareness and understanding of AMR through effective communication, education, and training:* The awareness of stakeholders on AMR including healthcare professionals, the public, various institutions, schools, and the community will be raised through different communication means, education, community mobilization and health

promotion in respective ministries to ensure that up-to-date information on global and country AMR status is disseminated nationwide.

Strategic Objective-2 Strengthen the knowledge and evidence base for AMR containment through surveillance and research: A functional surveillance system particularly in the human and animal health sectors will be established to monitor and inform policy decision making on slowing the spread of AMR. Accurate and timely data on patterns of antimicrobial use and resistance will be generated to guide local treatment protocols. Antimicrobial use (AMU), antimicrobial consumption (AMC) and AMR data will be used to guide on areas of research that need to be strengthened to promote appropriate use of antimicrobial agents. The AMR data will also be used to inform and improve programming in the country and reporting to the global antimicrobial resistance surveillance system (GLASS).

Strategic Objective-3: Reduce the incidence of infection across human, environment, and animal communities and healthcare through individual and environmental sanitation, hygiene, and infection prevention measures: Infection prevention and control (IPC) practices will be re-enforced to improve personal and environmental hygiene coupled with the IPC measures in both human and animal health sectors to stop the chain of infection, reducing the spread of infections in humans and animals, in food establishments, and in the community.

Strategic Objective-4: Optimize the use of antimicrobial medicines in human and animal health through AMR stewardship: Activities will be implemented that promote the optimal use of antimicrobial medicines in both human and animal health sectors through an improved regulatory framework for antimicrobials, availability and use of guidelines, improved prescribing practices by clinicians and veterinary practitioners, and sound use of antimicrobials by consumers and farmers.

Strategic Objective-5: Enhance leadership, governance, coordination, and investment in containing AMR: The AMRCC will be strengthened to high level government coordination across the multi-sector ministries including health, agriculture, and Ministry of Natural resources and Energy. The coordination, monitoring and evaluation of the implementation plan will be conducted by the AMRCC according to their defined terms of reference, supported by a One Health Committee (OHC). The AMRCC will spearhead a close collaboration with the country representatives of WHO and FAO, and regional organizations such as OIE, African Union, Africa CDC, SADC and ASLM.

1. INTRODUCTION

Antimicrobial resistance (AMR) is the ability of pathogenic microbes to develop resistance to the effects of antimicrobial medication. Antimicrobial resistance develops over time, but is accelerated by inappropriate use of antimicrobial medicine, lack of access to health services, and through antimicrobial residues in soil, crops, and water. Antimicrobial resistant microbes are found in people, animals, food, and the environment (in water, soil, and air). They can spread between people and animals, including from food of animal origin, and from person to person. Poor infection control, inadequate sanitary conditions and inappropriate food-handling encourage the spread of antimicrobial resistance. New resistance mechanisms are emerging and spreading globally, threatening our ability to treat common infectious diseases such as pneumonia, tuberculosis, blood poisoning, gonorrhoea, and foodborne diseases with antimicrobial agents.

Antimicrobial resistance has been recognized as a threat to the gains made in health and development and to the attainment of sustainable development goals (SDG) in health security, poverty, economic growth, and food security. For example, emerging resistance to HIV, TB and malaria is an obstacle to the achievement of SDG target 3.3¹. At the same time, actions required to achieve SDGs may also have deleterious effects on AMR e.g., the estimated 70% increase in the use of antimicrobials required to double food/animal production between 2010 and 2030 to achieve food security (SDG 2)¹.

Globally, there is an urgent need to change the antimicrobial prescription and use practices. In recognition of this need, the World Health Assembly adopted the Global Action Plan on Antimicrobial Resistance in May 2015 and called upon member states to develop national action plans (NAPs) to contain AMR. Accordingly, the Government of Eswatini appointed the AMR Containment Committee (AMRCC) with members from the Ministry of Health (MOH), Ministry of Agriculture (MOA), Ministry of Natural Resources and Energy (MONRE) in 2016. This committee developed the National AMR Containment Strategic Plan 2018-2022 using a One Health approach. The implementation plan of the delineates the plan to implement, monitor and evaluate the National AMR Containment Strategic Plan 2018-2022.

¹<https://www.oie.int/amr2018/wp-content/uploads/2018/11/2-Sally-Davies-OIE-the-UN-IACG-on-AMR.pdf>

2. THE IMPLEMENTATION PLAN

Based on the National AMR Containment Strategic Plan 2018-2022, the Government will implement strategic objectives for the period of October 2020 to September 2025. This is the implementation plan after the development of the strategic plan, and it will take the following considerations into account:

- Translate the strategic objectives to activities and actions.
- Align the implementation plan with existing policies, regulations, and guidelines, and identify opportunities for improvement.
- Align the implementation plan with funding support including the Fleming Fund support where relevant.
- Improve the national coordination of the implementation of AMR surveillance strategies in the different sectors.
- Monitor the implementation plan outputs and collate experiences for future adjustments.

The implementation plan will be operationalized by technical departments in the respective Ministries with support of implementing partners and other AMR stakeholders on key areas as detailed below. The coordination, monitoring and evaluation of the implementation plan will be conducted by the AMRCC according to their defined terms of reference.

2.1. Strategic Objective 1: Improve awareness and understanding of AMR through effective communication, education, and training

The focus of this strategic objective is to raise the awareness of the community on AMR through different means at different levels of the society. The relevant experts and officers in charge of communication, community mobilization and health promotion in respective ministries must be up to date with the current global and country AMR status, and equipped with the required knowledge and resources to raise awareness on issues pertaining to AMR in the country. They will be expected to work closely with health workers, animal & plant health workers, and environmental experts at all levels under one health approach to contribute to increasing literacy on AMR in the Kingdom of Eswatini. This will be achieved through information, education, and communication (IEC) products developed and disseminated to cross-sectoral audiences including schools, the public and AMR stakeholders in various institutions. Detailed activities that will be undertaken to improve awareness and understanding of AMR are outlined in Table 1.

Table 1. Improve awareness and understanding of AMR through effective communication, education, and training.

Priority output	Activity	Responsible	
		Lead	Supporting
<i>Raise awareness on AMR to promote behavioral change</i>	Training: Provide training to health workers, animal and plant health practitioners, environmentalists, private sector, NGOs,	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO Parliament, CANGO, FESBC, Judiciary Commission
	Stakeholder Awareness: conduct awareness on current global and country AMR status activities with Media Houses, Parliamentarians, Judiciary, Community leaders	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	World Antimicrobials Awareness Week (WAAW): Organize and conduct WAAW in Eswatini that convenes scientists, human and animal health professionals, government, national and international AMR stakeholders, and the public.	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO, Rotary Club
	Training on management of antimicrobial agents: Facilitate the raising of awareness about sound management of antimicrobial medicines at all levels, and across sectors and government departments (regulators, wholesalers, suppliers)	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	Public awareness: <ul style="list-style-type: none"> Conduct public awareness campaigns on proper use of antimicrobials in humans, animals, and the environment, and on infection, prevention, and control. 	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO, Rotary Club Mobile service providers, Municipalities, Ministry of Tinkhundla & Development (MTD)
	<ul style="list-style-type: none"> Conduct national review workshops on strategies of AMR control, strategies on awareness creation – impact of awareness campaigns or feedback on these - and reviewing & redesigning IEC materials. 	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO, Rotary Club Mobile service providers, Municipalities, Ministry of Tinkhundla & Development (MTD)

Priority output	Activity	Responsible	
		Lead	Supporting
	<p>Producing Information, Education and Communication / Social and Behavior Change Communication (IEC/SBCC) materials: Develop & distribute IEC and SBCC material on proper usage of antimicrobial agents by humans and in animals and disseminate information on appropriate use of antimicrobials to stakeholders and the community, as necessary. Information will include the following messages:</p> <ol style="list-style-type: none"> i. Promote rational/appropriate use of antimicrobials. ii. Educate/train public on good practices that will reduce infection, and on use of antimicrobials for growth promotion and clinical treatment purposes. iii. Provide regular, up-to-date, and unbiased medicine information to veterinary & human health providers, animal owners, and communities. iv. Facilitate the raising of awareness about sound management of antimicrobial agents at all levels across sectors and government departments. 	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO, UNESCO, UNICEF, CANGO Traditional Healers Organization (THO)
	<p>Awareness creation in schools:</p> <ul style="list-style-type: none"> • Advocate for sensitization of all school going individuals on IPC and AMR by re-enforcing hand washing and sanitation in schools and creating awareness through the following events: <ol style="list-style-type: none"> i. World hand washing day (October 15th) ii. Distribution of job aids on hand washing techniques iii. World Toilet Day (19th November) 	AMRCC, MOE, Tertiary institutions, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO, UNESCO, UNICEF
	<ul style="list-style-type: none"> • Develop & distribute IEC/BCC materials for AMR to schools. 	MOE, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO, UNESCO, UNICEF
Develop or strengthen	Develop training material: Review and update training materials for AMR curricula in	AMRCC, Tertiary institutions,	ICAP, WHO, OIE, FAO,

Priority output	Activity	Responsible	
		Lead	Supporting
antimicrobial training curricula for training human health, veterinary, and environmental professionals	the context of One Health approach for pre-service and in-service trainings.	MOH, MOA, MONRE	UNESCO, UNICEF, MOE
	Advocate for incorporation of AMR containment program in pre- and in-service training curriculum for all professionals involved in AMR containment.	AMRCC, MOH, MOA, MONRE, Tertiary institution	ICAP, WHO, OIE, FAO, UNESCO, UNICEF, UNFPA
	Advocate for inclusion of AMR containment training in continuous professional development programs in the three (3) sectors.	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	Annual seminar: Regularly update professionals on new global developments to mitigating AMR.	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO

2.2. Strategic objective 2: Strengthen the knowledge and evidence base for AMR containment through surveillance and research

The key strategy to slowing down or preventing the emergence of AMR is to have a functional surveillance system particularly in the human and animal health sectors. A functional surveillance system will enable the Government of Eswatini to generate accurate and timely data on patterns of antimicrobial resistance, detect new and emerging resistance at an early stage and guide local treatment protocols. It will also enable utilization of AMR data to inform and improve programming and reporting to the global antimicrobial resistance surveillance system (GLASS). Developing a surveillance system will involve a comprehensive cross-sectoral situational analysis/needs assessment to identify current gaps and opportunities in policy guidelines and in existing information system infrastructure for surveillance. It will also involve a review of the current national health research agenda to include AMR. Activities that are planned under this strategic objective are detailed in Table 2.

Table 2: Strengthen the knowledge and evidence base for AMR containment through surveillance and research.

Priority output	Activity	Responsible	
		Lead	Supporting
Identify current gaps in AMR surveillance and research	Research & surveillance needs assessment: Conduct situational analyses/needs assessment of 3 sectors involved in AMR surveillance to identify current gaps in policy, guidelines, and tools for Research and Surveillance in all sectors.	AMRCC, MOH, MOA, MONRE, National Health Research Coordination Unit	ICAP, WHO, OIE, FAO
	KAP status survey: Conduct a knowledge, attitude, and practice (KAP) survey among animal, environment, and human health stakeholders; regulatory and enforcement	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO, UNEP

Priority output	Activity	Responsible	
		Lead	Supporting
	bodies; and the public on antimicrobial use and AMR.		
	Conduct regular knowledge assessment on medicines use and adherence in line with Standard Treatment Guidelines/Essential Medicines List (STG/EML) as per specified conditions.	AMRCC, MOH, MOA, MONRE	WHO, OIE, FAO, UNEP
	Setting up AMR research agenda: Conduct AMR-related operational research to identify and address gaps in the existing national research agenda.	AMRCC, MOH, MOA, MONRE,	ICAP, WHO, OIE, FAO
	Develop an AMR surveillance and research plan: Develop plans to monitor AMU, AMC, and AMR in all sectors.	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	Establishment of partnership: Identify potential collaboration with higher institutions in promoting and conducting AMR research and surveillance.	AMRCC, Ministry of Education (MOE), Tertiary institutions, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO, UNESCO, UNICEF
	Strengthen the National Research Council to coordinate the research agenda among all sectors.	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	Promote dissemination of research findings at National and International forums.	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
Build capacity in AMR surveillance for human and animal health, environment, and agriculture sectors	Identification of sentinel sites: Identify sentinel sites for implementation of AMR surveillance in all sectors.	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	Renovations: Conduct renovation works of laboratories to establish capacity for AMR testing.	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	Equipment/supplies: Equip laboratories with necessary laboratory testing analyzers and necessary reagents and consumables.	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	Training: Train laboratory personnel in animal health (AH) and human health (HH) sectors on advanced microbiology techniques.	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	Data management system: <ul style="list-style-type: none"> Build the capacity of the epidemiology units to collect, analyze and utilize AMR data to improve programming e.g., renovate, establish, and equip AMR data centers in all sectors. Conduct quarterly data review meetings. 	AMRCC, MOH, MOA, MONRE, MICT, MPED	ICAP, WHO, OIE, FAO

Priority output	Activity	Responsible	
		Lead	Supporting
	Expansion of sentinel sites: Develop roadmaps for the expansion of AMR testing into more public health laboratories in all sectors.	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	AMR surveillance in food and drinking water: Strengthen the identification of resistant pathogens and antimicrobial residue monitoring/ testing in food of plant and animal origin and drinking water.	AMRCC, MOA, MONRE	ICAP, WHO, OIE, FAO
	AMR surveillance in food animals: Support Veterinary services to build capacity for AMR surveillance using surveillance in live poultry and poultry meat as an example.	AMRCC, MOA	ICAP, WHO, OIE, FAO
	Training: Train laboratory staff and sample handlers on collection, handling, packaging, and shipping of samples.	AMRCC, MOA, MOH	ICAP, WHO, OIE, FAO
	Residue monitoring: Establish and strengthen residue monitoring/testing in food of plant and animal origin, and environmental residue monitoring/testing for pharmaceutical manufacturers.	AMRCC, MOA, MOH, MONRE	ICAP, WHO, OIE, FAO
Establish a comprehensive AMR surveillance system	Develop structured surveillance systems: <ul style="list-style-type: none"> Develop a defined set of surveillance data elements for the 3 sectors involved in AMR containment e.g., epidemic prone conditions, priority pathogens, vaccine preventable diseases, opportunistic infections (OIs) for HIV/TB. 	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Examine livestock production systems to assess sources likely to contribute most to potential risk to animal & human health (prioritization of value chains for surveillance) 	AMRCC, MOA	ICAP, OIE, FAO
	<ul style="list-style-type: none"> Develop a structured surveillance system in AMR to enable reporting to national, regional, and international entities e.g., GLASS, OIE, International Plant Protection Convention (IPPC), etc. 	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Establish a national interoperable AMR surveillance system in the context of One Health approach with reports combining the 3 sectors involved in AMR. 	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Implement an AMR surveillance system through a phased-in process according to the capacities built at all 	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO

Priority output	Activity	Responsible	
		Lead	Supporting
	levels (global, national, regional, community) of human, animal, and environmental sectors.		
	<ul style="list-style-type: none"> Establish an electronic surveillance system in the context of IDSR through partnership with public, private, and other related agencies for electronic reporting on AMR. 	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	<p>AMU and AMC surveillance:</p> <ul style="list-style-type: none"> Conduct assessments of the current AMU and AMC surveillance systems in all 3 sectors. 	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Develop AMU/AMC surveillance protocols/strategies in all sectors. 	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Support the collection and analyses of AMU and AMC data from surveillance sites of the 3 sectors as part of strengthening AMR surveillance. 	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	<p>AMU, AMC, and AMR reporting:</p> <ul style="list-style-type: none"> Support the dissemination of AMU and AMC surveillance reports to local stakeholders and policy makers, as well as regional and international entities. 	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO

2.3. Strategic Objective 3: Reduce the incidence of infection across human, environment, and animal communities and health care through individual and environmental sanitation, hygiene, and infection prevention measures

Good infection prevention control (IPC) practices are essential elements in a strategy to contain AMR. The Eswatini AMR strategic action to improve personal and environmental hygiene coupled with IPC measures in both human and animal health sectors will stop the chain of infection and reduce the spread of infections in humans and animals, in food establishments, and in the community. This reduction in infection will in turn decrease the need for antimicrobials and emergence of AMR. Activities that will be undertaken under this strategic objective to enhance IPC, personal, and environmental hygiene are detailed in Table 3.

Table 3: Reduce the incidence of infection across human, environment, and animal communities and health care through individual and environmental sanitation, hygiene, and infection prevention measures.

Priority output	Activity	Responsible	
		Lead	Supporting
Strengthen IPC at veterinary and human health service points	Strengthening Implementing IPC	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Conduct gap assessment in IPC policies & guidelines in the 3 sectors 	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Develop/Review and update IPC policies/guidelines. 	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Develop/review/update immunization policies and guidelines and disseminate them to all healthcare facilities to improve immunization uptake and coverage. 	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Identification and training of regional focal people (Trainer of Trainers) to lead IPC services. 	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Provide training to service point staff (including RHMTs & Extension officers) and the community to implement IPC policies and guidelines. 	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Strengthen vaccine programs in the AH sector. 	AMRCC, MOA	ICAP, WHO, OIE, FAO, Communities, farm enterprises
	<ul style="list-style-type: none"> Develop an IPC electronic app. 	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Print & Disseminate IPC policies/guidelines for animal and human health at service points. 	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Facilitate installation of hand-washing facilities at all service points with safe running water or sanitizers. 	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Procure and provide materials and resources for IPC at all animal and human service points. 	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Implement IPC policies and guidelines. 	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO
<ul style="list-style-type: none"> Monitor implementation of IPC guidelines. 	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO	
Strengthen IPC in food establishments and communities	Policies, regulation & guidelines: <ul style="list-style-type: none"> Develop/review/update food hygiene and safety policies/guidelines/standards for food establishments (slaughter sites, food production/processing sites, distributors, restaurants, grocery stores, food vendors). 	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO

Priority output	Activity	Responsible	
		Lead	Supporting
	<ul style="list-style-type: none"> Inspect food establishments/environment and slaughter sites to ensure good operational practices and food hygiene. 	AMRCC, MOA, MOH, MONRE	ICAP, WHO, OIE, FAO
	Information dissemination: Print and disseminate food hygiene and safety policies/guidelines/standards/procedures for food establishments including developing an electronic app.	AMRCC, MOA, MOH	ICAP, WHO, OIE, FAO
	Training: Provide training to food establishment staff to implement food hygiene policies and guidelines.	AMRCC, MOA, MONRE	ICAP, WHO, OIE, FAO
	Awareness: <ul style="list-style-type: none"> Provide information, education, and communication (IEC) materials for proper hand washing at all food service points and key public areas. 	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Provide IEC materials for proper food storage/ environment handling for the public at food selling sites. 	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	Waste management policy: <ul style="list-style-type: none"> Finalize the health care waste policy and regulation. 	AMRCC, MOH, MOA, MONRE, EEA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Print and disseminate health care waste policies and regulations. 	AMRCC, MOH, AMRCC, MOA, MONRE, EEA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Quarterly training on health care waste policies and regulations. 	AMRCC, MOH, MONRE, MOA, EEA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Implement and monitor compliance to health care waste policies and regulations. 	AMRCC, MOH, MOA, MONRE, EEA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Educate and promote the construction of ventilated pit latrines. 	AMRCC, MOH, MONRE, EEA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Train households on waste management and disposal practices. 	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Quarterly meetings to enforce the Environmental Act of 2000. 	AMRCC, MONRE, EEA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Sensitize designers, development and implementing partners of water and wastewater treatment facilities on AMR. 	AMRCC, MONRE, MOH, EEA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Educate, promote, and improve practices on the protection of water sources from contamination (Ministry of Housing, Communities). 	AMRCC, MOA, MONRE, EEA, Ministry of Housing & Development	ICAP, WHO, OIE, FAO

2.4. Strategic objective 4: Optimize the use of antimicrobial medicines in human and animal health through AMR stewardship

Use of antimicrobials, even when rational and prudent, can precipitate emergence of resistance². Over-prescription, easy access to over-the-counter medicines, and lack of a regulatory framework on rational use of antimicrobials all contribute towards the emergence of AMR. Strategies that will be used to address optimal use of antimicrobial medicines in Eswatini will target and improve the antimicrobials regulatory framework, availability and use of treatment guidelines, improved prescribing practices by clinicians and veterinary practitioners, and appropriate use of antimicrobials by consumers and farmers. Detailed activities that will be undertaken to actualize these strategies are outlined in Table 4.

Table 4: Optimize the use of antimicrobial drugs in humans and animals' health through AMR stewardship.

Priority output	Activity	Responsible	
		Lead	Supporting
<i>Enforce interventions aimed at improving the use of antimicrobials</i>	Develop guidelines on prudent use of antimicrobial agents in AH sector: <ul style="list-style-type: none"> Develop guidelines for good agriculture practices for plant protection. Audit adherence to guidelines 	AMRCC, MOA	ICAP, WHO, OIE, FAO
	Use of treatment guidelines: <ul style="list-style-type: none"> Provide support in the development of adult and pediatric treatment guidelines for infectious diseases based on AMR patterns. 	AMRCC, MOH	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Provide training to clinicians in hospitals and health centers, and nurses in primary care units on up-to-date infectious diseases treatment guidelines. 	AMRCC, MOH	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Monitor the utilization of bacteriological testing services to inform rational use of antimicrobials. 	AMRCC, MOH	ICAP, WHO, OIE, FAO
<i>Promote rational prescribing and good dispensing practices of antimicrobials in humans and animals</i>	<ul style="list-style-type: none"> Activate hospital/health facility PTCs and strengthen their capacity to improve the use of antimicrobials and other medicines. 	AMRCC, MOH	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Develop National terms of reference for AMS committees. 	AMRCC, MOH	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Establish AMS Committees and ensure they have facility TORs 	AMRCC, MOH	ICAP, WHO, OIE, FAO

² <https://www.flemingfund.org/wp-content/uploads/bfcda6342f6f0e7ae1337e08b3273a94.pdf>

Priority output	Activity	Responsible	
		Lead	Supporting
	(adapted from the national TORs) in health facilities.		
	<ul style="list-style-type: none"> Train healthcare workers, veterinary and plant health practitioners on AMC/AMU/AMR principles. 	AMRCC, MOMA, MOH	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Train animal health workers on rational use of antimicrobials. 	AMRCC, MOA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Supportive supervision and audits of antimicrobials prescribing with onsite feedback to HH sites. 	AMRCC, MOH	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Supportive supervision and audits of antimicrobials prescribing conducted in AH with feedback to animal and plant health workers. 	AMRCC, MOA	ICAP, WHO, OIE, FAO
Support evidence-based selection of antimicrobials for the essential medicines list (EML) to conserve their effectiveness and longevity	<ul style="list-style-type: none"> Collect, analyze, and report AMR Data on a quarterly basis on all HH sentinel sites. 	AMRCC, MOH	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Train all hospitals and health centers on AMC/AMU/AMR activities. 	AMRCC, MOH	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Collect, analyze, and report AMR data quarterly at the laboratory level in the AH sector. 	AMRCC, MOA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Collate annual evidence to guide use of antimicrobials in managing infectious diseases in HH and AH. 	AMRCC, MOA, MOH	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Selection of antimicrobials based on the bacterial susceptibility profiles in both AH and HH sites. 	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Profiling of antimicrobial resistance patterns in AH and HH. 	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO
	<ul style="list-style-type: none"> Provide support in the revision (add/remove antimicrobials) of STGs/ EML in HH. 	AMRCC, MOH	ICAP, WHO, OIE, FAO

2.5. Strategic objective 5: Enhance leadership, governance, coordination, and investment in containing AMR

Following the World Health Assembly (WHA) in May 2015 and its call for action, the Government took the first key step by establishing an AMRCC in 2016 with a mandate to coordinate the multi-sectoral implementation of the national action plan to tackle AMR. To be able to perform these duties, the AMRCC will be strengthened to exercise its role and responsibilities according to defined terms of reference and to effect government coordination across the health, agriculture, and environmental sectors. A strengthened AMRCC will also monitor implementation of the National AMR Containment Strategic Plan, work closely with donor and implementing partners

to raise awareness, and mobilize resources to accelerate implementation of the strategic plan. A close collaboration with the tripartite representatives (WHO, OIE, FAO) is instrumental to maximize technical support and gauging efforts to international standards in addition to the collaborations with regional organizations such as the African Union (AU), Africa CDC, Southern African Development Community (SADC) and African Society for Laboratory Medicine (ASLM).

A One Health Committee (OHC) which will be the highest reporting structure for governance and coordination and leadership of all “One Health” public health related matters of the multi-sector ministries will be established to promote the one health approach to tackle AMR.

Membership of the OHC will be as follows:

- Director of Health Services, MOH
- Director of Veterinary and Livestock Services, MOA
- Director of Agriculture/Chief Research Officer, MOA
- Director of Water Affairs, MONRE
- Director of Eswatini Tourism & Environmental Authority
- Subject Matter Chairpersons (to serve as Committee Secretariat)
 - AMRCC Chairperson/ Co-Chairperson
 - IHR Focal Person
 - Rabies Coordination
 - Communication Focal Persons
 - Any other organized specific group
- CANGO
- Country Representatives from WHO, FAO, and United Nations Environmental Program (UNEP).

Detailed activities that will be undertaken to enhance governance, coordination and investment are outlined in Table 5.

Table 5: Enhance leadership, governance, coordination, and investment in containing AMR

Priority output	Activity	Responsible	
		Lead	Supporting
<i>Strengthen capacity of the One Health Committee (OHC) to provide co-ordination oversight and leadership for AMR containment</i>	Strengthening of the AMRCC functions: <ul style="list-style-type: none"> • Training on one health • Revising TOR as needed 	AMRCC, MOH, MOA, Ministry of Commerce, Ministry of Finance, CANGO	ICAP, WHO, OIE, FAO
	Advocate/ ensure AMR agenda is included in national sector specific strategic plans.	OHC, AMRCC	ICAP, WHO, OIE, FAO
	Ensure that AMR activities are prioritized in sector specific budget allocation.	OHC, AMRCC	ICAP, WHO, FAO, OIE
	Support the commissioning of the AMR strategic plan.	OHC, MOH, MOA, MONRE, AMRCC	ICAP, WHO, OIE, FAO
	Facilitate semi-annual OHC meetings.	OHC, AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO

Priority output	Activity	Responsible	
		Lead	Supporting
	Facilitate the development/review of National level Antimicrobial stewardship committee TOR.	OHC, AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	Support the Medicine Regulatory Authority to review the status of implementation of the Medicines and Related Substances Act 9 of 2016.	OHC, AMRCC	ICAP, WHO, OIE, FAO
	Promote evidence-based policy development/review and decision making through AMR data dissemination, use, as well as increasing literacy on AMR issues.	OHC, AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	Facilitate the establishments of AMR TWG involving all stakeholders including private firms and developmental partners.	OHC, AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	Facilitate quarterly AMR and AMU/C data sharing, reviews by the TWG and reporting to the AMRCC.	AMRCC	ICAP, WHO, OIE, FAO
Strengthen national partnership, coordination, and collaboration at all levels	Organize validation and dissemination meeting on AMR implementation plan with stakeholders.	AMRCC	ICAP, WHO, OIE, FAO
	Support key ministries to organize semi-annual AMR data review meetings to sensitize stakeholders, providers, policy makers on emerging AMR/AMU/AMC issues and formulate recommendations to address these issues.	AMRCC	ICAP, WHO, OIE, FAO
	Organize quarterly AMRCC meetings to review progress of the implementation plan.	AMRCC	ICAP, WHO, OIE, FAO
	Organize round-table forums with stakeholders to discuss AMR resource mobilization and co-ordination mechanisms.	OHC, AMRCC	ICAP, WHO, OIE, FAO
Strengthen regional and international AMR partnerships and collaboration	Organize quarterly co-ordination meetings with the Tripartite representatives in country (WHO, OIE, FAO) to discuss progress, challenges, and gaps in technical support of the AMR strategy implementation.	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
	Strengthen collaboration with regional organizations such as Africa CDC and ASLM to build capacity for AMR surveillance in Eswatini through regular meetings.	AMRCC, OHC	ICAP, WHO, OIE, FAO
	Collaborate with neighboring and regional/international partners on AMR containment, research in medicines, diagnostic tools, vaccines, and	AMRCC, OHC	ICAP, WHO, OIE, FAO

Priority output	Activity	Responsible	
		Lead	Supporting
	interventions through exchange update meetings.		
	Establish a one health triad electronic system for adequate regulation and monitoring of medicines importation and distribution.	OHC, AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO
Strengthen cross border collaboration for importing and exporting plant, animal and human medicines	Ensure import regulation documents for animal and human health sectors are available and used at customs offices and borders.	AMRCC, MOA, MOH	ICAP, WHO, OIE, FAO
	Training & Awareness: <ul style="list-style-type: none"> • Provide trainings to Veterinary staff working at ports of entry. • Create awareness to customs office staff on the key components of the regulations for human health and agricultural imports. 	AMRCC, MOA, MONRE	ICAP, WHO, OIE, FAO
	Work closely with customs services to establish systems for tracking of imported medicines, plants, and animals at ports of entry.	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO
Review and update current National AMR containment strategy	Conduct mid and end-term review of AMR strategic plan implementation.	AMRCC, OHC	ICAP, WHO, OIE, FAO
	Develop the next 5-year AMR strategic plan (2023 - 2027).	AMRCC, OHC	ICAP, WHO, OIE, FAO
Strengthen in-country One Health co-ordination mechanism	Develop a concept note for improving One Health governance and co-ordination.	OHC, AMRCC	ICAP, WHO, OIE, FAO
	Advocate for consolidation and strengthening of governance and co-ordination of all public health issues in the one health context.	OHC, AMRCC, IHR focal point	ICAP, WHO, OIE, FAO

3. MONITORING AND EVALUATION FRAMEWORK

The monitoring and evaluation plan (M&EP) is an important accompaniment to the national AMR containment implementation plan. The key component of the M&EP is the performance framework (Table 6) detailing performance measures (indicators), targets, responsible persons, and timeline for each activity. Implementation of the annual operational plans will detail other components including a logic model, data collection and reporting tools, data sources and data management processes, and reporting frequency. Regular evaluation will also be undertaken at planned intervals to assess whether planned outcomes were achieved.

Table 6: Performance Framework for Implementation of the National Antimicrobial Resistance Containment Strategic Plan 2020 – 2025.

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline				
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5
SO ₁	Improve awareness and understanding of AMR through effective communication, education, and training										
1.1	<i>Raise awareness on AMR to promote behavioral change</i>	Training: Provide training to health workers, animal and plant health practitioners, environmentalists, private sector, NGOs	Number of health workers, private sector, Veterinary practitioners, Media Houses, Parliamentarians, Judiciary, Community leaders trained.	1000	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO Parliament, CANGO, FESBC, Judiciary Commission	X	X	X	X	X
		Stakeholder Awareness: conduct awareness on current global and country AMR status activities with Media Houses, Parliamentarians, Judiciary, Community leaders	Number of stakeholders sensitized on current Global and Country AMR status	1000	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X
		World Antimicrobial Awareness Week (WAAW): Organize and conduct WAAW in Eswatini that convenes scientists, human and animal health professionals, government, national and international AMR stakeholders.	Number of WAAW events organized	5	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO, Rotary Club	X	X	X	X	X

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline				
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5
		Training on management of antimicrobial agents: Facilitate the raising of awareness about sound management of antimicrobial medicines at all levels, and across sectors and government departments (regulators, wholesalers, suppliers)	Number of awareness events organized	300	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X
		Public awareness: <ul style="list-style-type: none"> Conduct public awareness campaigns on proper use of antimicrobials in humans, animals, and the environment, and on infection, prevention, and control. 	Number of campaigns conducted	15	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO, Rotary Club Mobile service providers, Municipalities, Ministry of Tinkhundla & Development (MTD)	X	X	X	X	X
		<ul style="list-style-type: none"> Conduct national review workshops on strategies of AMR control, strategies of awareness creation – impact of awareness campaigns or feedback on these - and reviewing & redesigning IEC materials. 	Number of national review workshops organized	5	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X
		Producing IEC/SBCC materials: Develop & distribute IEC and SBCC material on proper usage of antimicrobial agents by humans and in animals and disseminate information on appropriate use of antimicrobials to stakeholders and the community, as necessary.	Number of times IEC materials developed	5	AMRCC, MOH, MOA, MONRE,	ICAP, WHO, OIE, FAO, UNESCO, UNICEF, CANGO	X	X	X	X	X

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline				
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5
		<p>Information will include the following messages:</p> <ul style="list-style-type: none"> i. Promote rational/appropriate use of antimicrobials. ii. Educate/train public on good practices that will reduce infection, and on use of antimicrobials for growth promotion and clinical treatment purposes. iii. Provide regular, up-to-date, and unbiased medicine information to veterinary & human health providers, animal owners, and communities. iv. Facilitate the raising of awareness about sound management of antimicrobial agents at all levels across sectors and government departments. 				Traditional Healers Organization (THO)					
		<p>Awareness creation in schools:</p> <ul style="list-style-type: none"> • Advocate for sensitization of all school going individuals on IPC and AMR by re-enforcing hand washing and sanitation in schools and creating awareness through the following events: <ul style="list-style-type: none"> i. World hand washing (WHW) day (October 15th) ii. Distribution of job aids on hand washing techniques iii. World Toilet Day (WTD) 	<ul style="list-style-type: none"> i. Number of WHW events organized ii. Number of job aids disseminated iii. Number of WTD events supported. 	<p>5</p> <p>5</p> <p>5</p>	<p>AMRCC, MOE, Tertiary institutions</p> <p>MOH, MOA, MONRE</p>	<p>ICAP, WHO, OIE, FAO, UNESCO, UNICEF</p>	X	X	X	X	X

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline				
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5
		<ul style="list-style-type: none"> Develop & distribute IEC/BCC materials for AMR to schools. 	Number of schools supported with IEC/BCC materials	953	AMRCC, MOE, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO, UNESCO, UNICEF	X	X	X	X	X
1.2	<i>Develop or strengthen antimicrobial training curricula for training human health, veterinary, and environmental professionals</i>	Develop training material: Review and update the training materials for AMR curricula in the context of One Health approach for pre-service and in-service trainings.	Number of training packages developed	2 per sector	AMRCC, MOE, Tertiary institution, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO, UNESCO, UNICEF	X	X	X	X	X
		Advocate for incorporation of AMR containment program in pre- and in-service training curriculum for all professionals involved in AMR containment.	Number of AMR containment programs developed,	1	AMRCC, MOH, MOA, MONRE, Tertiary institutions	ICAP, WHO, OIE, FAO, UNESCO, UNICEF, UNFPA	X	X			
		Advocate for inclusion of AMR containment training in continuous professional development programs in the three (3) sectors.	Number of professionals trained	500	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X		X		X
		Annual seminar: Regularly update professionals on new global developments to mitigating AMR.	Number of refresher trainings conducted	500	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO		X		X	

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline					
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5	
SO2	Strengthen the knowledge and evidence base for AMR containment through surveillance and research											
2.1	<i>Identify current gaps in AMR surveillance and research</i>	Research & surveillance needs assessment: Conduct situational analyses/needs assessment of 3 sectors involved in AMR surveillance to identify current gaps in policy, guidelines, and tools for Research and Surveillance in all sectors.	Number of needs assessment reports disseminated	3 (1 per sector)	AMRCC, MOH, MOA, MONRE, National Health Research Coordination Unit	ICAP, WHO, OIE, FAO, UNEP	X	X	X			
		KAP status survey: Conduct a knowledge, attitude, and practice survey among animal, environment, and human health; regulatory and enforcement bodies; and the public on antimicrobial use and AMR	KAP report	1	AMRCC, MOH, MOA, MONRE	WHO, OIE, FAO, UNEP			X	X		
		Conduct regular knowledge assessment on medicines use and adherence in line with Standard Treatment Guidelines/ Essential Medicines List (STG/EML) as per specified conditions	Number of Assessments Conducted	1	AMRCC, MOH, MOA, MONRE	WHO, OIE, FAO, UNEP	X	X	X	X	X	
		Setting up AMR research agenda: Conduct AMR-related operational research per sector to identify and address gaps in the existing national research agenda.	Number of operational research reports identifying gaps in AMR research	1 report per sector, 1 combined report from sectors	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X				
		Develop an AMR surveillance and research plan: Develop plans to monitor AMU, AMC, and AMR in all sectors.	Number of AMU, AMC, AMR plans developed	1 plan per sector, 1 combined plan from all sectors	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X				

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline				
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5
		Establishment of partnership: Identify potential collaboration with higher institutions in promoting and conducting AMR research and surveillance.	Number of meetings conducted with higher institutions on AMR	5	AMRCC, MOE, Tertiary institution, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO, UNESCO, UNICEF	X	X	X	X	X
		Strengthen the National Research Council to coordinate the research agenda among all sectors.	Number of capacitation workshops conducted with the National Research Council	10 (2 per year)	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X
		Promote dissemination of research findings at National and International forums.	Number of dissemination workshops attended/conducted	8 (2 per year: 1 National, 1 International)	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO		X	X	X	X
2.2	Build capacity in AMR surveillance for human and animal health, environment, and agriculture sectors	Identification of sentinel sites: Identify sentinel sites for implementation of AMR surveillance in 3 sectors.	Number of sentinel sites identified in 3 sectors	8 (4 HH, 2 AH, 2 Environment)	AMRCC, MOH, MOA, MONRE,	ICAP, WHO, OIE, FAO	X	X	X		
		Renovations: Conduct renovation works of laboratories to establish capacity for AMR testing.	Number of laboratories renovated	8 (4 HH, 2 AH, 2 Environment)	AMRCC, MOH, MOA, MONRE,	ICAP, WHO, OIE, FAO	X	X	X		
		Equipment/supplies: Equip laboratories with necessary laboratory testing analyzers and necessary reagents and consumables.	Number of laboratories that receive lab equipment and supplies	8 (4 HH, 2 AH, 2 Environment)	AMRCC, MOH, MOA, MONRE,	ICAP, WHO, OIE, FAO	X	X	X	X	X

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline				
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5
		Training: Train laboratory personnel in AH and HH sectors on advanced microbiology techniques.	Number of AH and HH personnel trained	TBC	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO,	X	X	X	X	X
		Data management system: <ul style="list-style-type: none"> Build the capacity of the epidemiology units to collect, analyze and utilize AMR data to improve programming e.g., renovate, establish, and equip AMR data centers in all sectors. Conduct quarterly data review meetings 	Number of strengthened sectoral data centers	4 Data centers (1 central and 3 sectoral) 20 meetings	AMRCC, MOH, MOA, MONRE, MICT, MPED	ICAP, WHO, OIE, FAO	X	X	X	X	X
		Expansion of sentinel sites: Develop roadmaps for the expansion of AMR testing into more public health laboratories in all sectors.	Number of public health laboratories conducting AMR testing	11 (9 HH, 1 AH, 1 environment)	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X
		AMR surveillance in food and drinking water: Strengthen the identification of resistant pathogens and antimicrobial residue monitoring/ testing in food of plant and animal origin and drinking water.	Number of different food types undergoing residue testing	6 (poultry, pork, beef, dairy, water, vegetables)	AMRCC, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X
		AMR surveillance in food animals: Support Veterinary services to build capacity for AMR surveillance using surveillance in live poultry and poultry meat as an example.	Number of protocols developed for surveillance in poultry	2	AMRCC, MOA	ICAP, WHO, OIE, FAO	X	X			

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline				
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5
		Training: Train laboratory staff and sample handlers on collection, handling, packaging, and shipping of samples.	Percentage of staff trained on sample collection	100%	AMRCC, MOA, MOH	ICAP, WHO, OIE, FAO	X	X	X	X	X
		Residue monitoring: Establish and strengthen residue monitoring/testing in food of plant and animal origin, and environmental residue monitoring/testing for pharmaceutical manufacturers.	Number of testing sites established	2	AMRCC, MOA, MOH, MONRE	ICAP, WHO, OIE, FAO	X	X	X		
2.3	Establish a comprehensive AMR surveillance system	Develop structured surveillance systems: <ul style="list-style-type: none"> Develop defined set of surveillance data elements for 3 sectors involved in AMR containment e.g., epidemic prone conditions, priority pathogens, vaccine preventable disease, opportunistic infections (OIs) for HIV/TB. 	Number of surveillance frameworks developed and disseminated	1 central framework with 3 sector representation	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X		
		<ul style="list-style-type: none"> Develop a structured surveillance system in AMR to enable reporting to national, regional, and international entities e.g., GLASS, OIE, International Plant Protection Convention (IPCC), etc. 	Number surveillance information systems developed.	1	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X			
		<ul style="list-style-type: none"> Establish a national interoperable AMR surveillance system in the context of One Health approach with reports combining 3 sectors involved in AMR. 	Number of reports disseminated	20 (4 per year)	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X
		<ul style="list-style-type: none"> Implement an AMR surveillance system through a phased-in process according to the capacities built at all levels (global, national, regional, community) of human, animal, and environmental sectors 	Number of levels reporting on AMR	20 (4 per year)	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline				
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5
		<ul style="list-style-type: none"> Establish an electronic surveillance system in the context of IDSR through partnership with public, private, and other related agencies for electronic reporting on AMR. 	A surveillance system established	1	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO		X	X	X	
		AMU and AMC Surveillance: <ul style="list-style-type: none"> Conduct assessments of the current AMU and AMC surveillance systems in all 3 sectors 	Surveillance report compiled	3 (1 per sector)	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X				
		<ul style="list-style-type: none"> Develop AMU/AMC surveillance protocols/strategies in all 3 sectors. 	Surveillance protocols for AMU/AMC developed	3 (1 per sector)	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X			
		<ul style="list-style-type: none"> Support the collection and analyses of AMU and AMC data from surveillance sites of the 3 sectors as part of strengthening AMR surveillance 	AMU/AMC data collected on quarterly basis	20 (4 per year)	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X
		AMU, AMC, and AMR Reporting: Support the dissemination of AMU and AMC surveillance reports to local stakeholders and policy makers, as well as regional and international entities.	Number of reports disseminated stakeholders and policy Makers.	20 (quarterly per year)	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X
S03	Reduce the incidence of infection across human, environment, and animal communities and health care through individual and environmental sanitation, hygiene, and infection prevention measures										
3.1.	Strengthen IPC at veterinary and human health service points	Strengthening Implementing IPC <ul style="list-style-type: none"> Conduct gap assessment on IPC policies & guidelines in the 3 sectors 	Report on gaps identified in each sector	3 reports (1 per sector) and 1 combined report	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X			
		<ul style="list-style-type: none"> Develop/Review and update IPC policies/guidelines 	Number of IPC policies/guidelines	6 (1 per sector and	AMRCC, MOH,	ICAP, WHO, OIE, FAO		X			X

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline					
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5	
			developed/reviewed	twice during the period)	MOA, MONRE							
		<ul style="list-style-type: none"> Develop/review/update immunization policies and guidelines and disseminate them to all healthcare facilities to improve immunization uptake and coverage. 	Number of Immunization policies & guidelines developed/reviewed/updated and disseminated	325 (MOH)	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO	X	X	X	X	X	
		<ul style="list-style-type: none"> Identification and training of regional focal people (Trainer of Trainers) to lead IPC services. 	Number focal people identified and trained on IPC	20	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X				
		<ul style="list-style-type: none"> Provide training to service point staff (including RHMTs & Extension officers) and the community to implement IPC policies and guidelines. 	Percentage of service point staff trained on IPC policies and guidelines	100%	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO	X	X	X	X	X	
		<ul style="list-style-type: none"> Strengthen vaccine programs in the AH sector. 	AH Vaccine programs strengthened		AMRCC, MOA	ICAP, WHO, OIE, FAO, Communities, farm enterprises	X	X	X	X	X	
		<ul style="list-style-type: none"> Develop an IPC electronic app. 	IPC electronic app developed	2 (MOA, MOH)	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO						
		<ul style="list-style-type: none"> Print & Disseminate IPC policies/guidelines for animal and human health at service points. 	IPC policies/guidelines for AH and HH at service points	(325 MOH, 10MOA)	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO	X		X	X	X	

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline				
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5
		<ul style="list-style-type: none"> Facilitate installation of hand-washing facilities at all service points with safe running water or sanitizers. 	% of service points with hand-washing facilities	100%	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO	X	X	X	X	X
		<ul style="list-style-type: none"> Procure and provide materials and resources for IPC at all animal and human service points. 	% of AH & HH service points with IPC materials & resources	100%	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO	X	X	X	X	X
		<ul style="list-style-type: none"> Implement IPC policies and guidelines. 	IPC policies and guidelines implemented	2	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO	X	X	X	X	X
		<ul style="list-style-type: none"> Monitor implementation of IPC guidelines. 	% of personnel utilizing IPC guidelines at service points	100%	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO			X	X	X
3-2.	Strengthen IPC in food establishments and communities	Policies, regulation, and guidelines: <ul style="list-style-type: none"> Develop/review/update food hygiene and safety policies/guidelines/standards for food establishments (slaughter sites, food production/processing sites, distributors, restaurants, grocery stores, food vendors). 	Food hygiene & safety policies/guidelines/standards developed/reviewed/updated	2	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO	X	X	X	X	X
		<ul style="list-style-type: none"> Inspect food establishments/environment and slaughter sites to ensure good operational practices and food hygiene. 	Number of inspection visits conducted	10 (2 per year)	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO	X	X	X	X	X
		Information dissemination: Print and disseminate food hygiene and safety policies/guidelines/standards/procedures for food establishments including developing an electronic application.	% of food hygiene & safety policies/guidelines/standards/procedures printed &	100%	AMRCC, MOA, MOH	ICAP, WHO, OIE, FAO		X	X	X	X

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline							
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5			
			disseminated for food establishments											
		Training: <ul style="list-style-type: none"> Provide training to food establishment staff to implement food hygiene policies and guidelines. 	% food establishments staff trained on implementation of food hygiene	100%	AMRCC, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X			
		Awareness: <ul style="list-style-type: none"> Provide information, education, and communication (IEC) materials for proper hand washing at all food service points and key public areas. 	% of food service points and key public areas with IEC materials for proper hand washing	100%	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X			
		<ul style="list-style-type: none"> Provide IEC materials for proper food storage/ environment handling for the public at food selling sites. 	% of food selling sites with IEC materials for proper food storage/environment handling	100%	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X			
		Waste management policy: <ul style="list-style-type: none"> Finalize the health care waste policy and regulation. 	Finalized health care waste policy and regulation	2	AMRCC, MOH, MOA, MONRE, Eswatini Environmental Authority (EEA)	ICAP, WHO, OIE, FAO	X	X	X					
		<ul style="list-style-type: none"> Print and disseminate health care waste policies and regulations. 	Number of health care waste policies and regulations	325 MOH 10 MOA	AMRCC, MOH, MOA, EEA	ICAP, WHO, OIE, FAO				X	X	X		

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline					
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5	
			printed and disseminated.									
		<ul style="list-style-type: none"> Quarterly training on health care waste policies and regulations. 	Number of trainings on health care waste policies and regulations	80	AMRCC, MOH, MONRE, MOA, EEA	ICAP, WHO, OIE, FAO			X	X	X	
		Awareness on waste management, compliance <ul style="list-style-type: none"> Quarterly sensitization of health facilities, veterinary clinics, and other health service points on proper disposal of expired or obsolete antimicrobials to reduce AMR. 	Number of sensitized health facilities and health service points on proper disposal of expired or obsolete antimicrobials to reduce AMR	80	AMRCC, MOH, MONRE, MOA, EEA	ICAP, WHO, OIE, FAO	X	X	X	X	X	
		<ul style="list-style-type: none"> Annual sensitization and enforcement for manufacturing industries on adherence to effluent disposal and waste management guidelines for the environment to safeguard against AMR. 	% of manufacturing industries sensitized	100%	AMRCC, MOH, MONRE, MOA, EEA	ICAP, WHO, OIE, FAO	X	X	X	X	X	
		<ul style="list-style-type: none"> Implement and monitor compliance to health care waste policies and regulations. 	number of health care waste policies and regulations implemented	3	AMRCC, MOH, MOA, MONRE, EEA	ICAP, WHO, OIE, FAO	X	X	X	X	X	
			% of facilities complying to the waste policies and regulations	100%	AMRCC, MOA, MOH, MONRE, EEA	ICAP, WHO, OIE, FAO			X	X	X	

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline				
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5
		<ul style="list-style-type: none"> Educate and promote the construction of ventilated pit latrines. 	% of eligible households trained on construction of ventilated pit latrines	100%	AMRCC, MOH, MONRE, EEA	ICAP, WHO, OIE, FAO	X	X	X	X	X
		<ul style="list-style-type: none"> Train households on waste management and disposal practices. 	% of households trained on waste management and disposal practices	100%	AMRCC, MOH, MOA, MONRE, Ministry of Housing & Urban Development	ICAP, WHO, OIE, FAO	X	X	X	X	X
		<ul style="list-style-type: none"> Quarterly meetings to enforce the Environmental Act of 2000. 	Number of engagement sessions with the EEA management	20	AMRCC, MONRE, MOH, EEA, Ministry of Housing & Urban Development	ICAP, WHO, OIE, FAO	X	X	X	X	X
		<ul style="list-style-type: none"> Sensitize designers, development and implementing partners of water and wastewater treatment facilities on AMR 	Number of sensitization sessions held with designers, development & implementing partners of water and wastewater treatment facilities on AMR.	20	AMRCC, MONRE, MOH, EEA	ICAP, WHO, OIE, FAO	X	X	X	X	X

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline				
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5
		<ul style="list-style-type: none"> Educate, promote, and improve practices on the protection of water sources from contamination. 	% of communities trained on the protection of water sources from contamination	100%	AMRCC, MOA, MONRE, EEA, Ministry of Housing & Development	ICAP, WHO, OIE, FAO	X	X	X	X	X
SO4 Optimize the use of antimicrobial drugs in humans and animals' health through AMR stewardship											
4.1.	<i>Enforce interventions aimed at improving the use of antimicrobials</i>	Develop guidelines on prudent use of antimicrobial agents in AH sector: <ul style="list-style-type: none"> Develop guidelines for good agriculture practices for plant protection. Audit adherence to guidelines 	Number of guidelines for good agriculture practices for plant protection developed	1	AMRCC, MOA	ICAP, WHO, OIE, FAO	X	X	X	X	X
		Use of treatment Guidelines: <ul style="list-style-type: none"> Provide support in the development of adult and pediatric treatment guidelines for infectious diseases based on AMR patterns. 	Number of adult and pediatric treatment guidelines for infectious diseases developed	325	AMRCC, MOH	ICAP, WHO, OIE, FAO	X	X	X		
		<ul style="list-style-type: none"> Provide training to clinicians in hospitals and health centers, and nurses in primary care units on up-to-date infectious diseases treatment guidelines. 	Number of Clinicians trained on infectious diseases treatment guidelines	4000	AMRCC, MOH	ICAP, WHO, OIE, FAO		X	X	X	X
		<ul style="list-style-type: none"> Monitor the utilization of bacteriological testing services to inform rational use of antibiotics. 	% of eligible prescriptions informed by Culture and antimicrobial	100%	AMRCC, MOH	ICAP, WHO, OIE, FAO	X	X	X	X	X

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline								
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5				
			sensitivity testing (AST)												
4.2.	<i>Promote rational prescribing and good dispensing practices of antimicrobials in humans and animals</i>	<ul style="list-style-type: none"> Activate hospital/health facility PTCs and strengthen their capacity to improve the use of antimicrobials and other medicines. 	% of proposed PTC activities completed	100%	AMRCC, MOH	ICAP, WHO, OIE, FAO	X	X	X	X	X				
		<ul style="list-style-type: none"> Develop National terms of reference for AMS committees. 	AMS TORs developed	1	AMRCC, MOH	ICAP, WHO, OIE, FAO	X								
		<ul style="list-style-type: none"> Establish AMS Committees and ensure they have facility TORs (adapted from the national TORs) in health facilities. 	AMS committees established	14	AMRCC, MOH	ICAP, WHO, OIE, FAO	X	X							
		<ul style="list-style-type: none"> Train healthcare workers (HCWs), veterinary and plant health practitioners on AMC/AMU/AMR principles. 	Number of HCWs, veterinary and plant health practitioners trained on AMC/AMU/AMR principles	5500	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO	X	X	X	X	X	X			
		Train animal and plant health workers on rational use of antimicrobials.	Percentage of Veterinary animal health workers trained on rational use of antimicrobials	100%	AMRCC, MOA	ICAP, WHO, OIE, FAO	X	X	X	X	X	X			
		Supportive supervision and audits of Antibiotics prescribing audits with onsite feedback to HH sites.	Number of supportive supervisions, prescription audits, and	56	AMRCC, MOH	ICAP, WHO, OIE, FAO	X	X	X	X	X	X			

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline							
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5			
			feedback meetings conducted											
		Supportive supervision and audits of Antibiotics prescribing conducted in AH with onsite feedback to animal and plant health workers	Number of supportive supervisions, prescription audits, and feedback meetings conducted	8 (1 per quarter)	AMRCC, MOA	ICAP, WHO, OIE, FAO					X	X		
4.3.	Support evidence-based selection of antimicrobials for the essential medicines list (EML) to conserve their effectiveness and longevity	Collect, analyze, and report AMR data on a quarterly basis on all HH sentinel sites.	Number of AMR Quarterly reports from HH shared with AMRCC	20	AMRCC, MOH	ICAP, WHO, OIE, FAO	X	X	X	X	X			
		Train all hospitals and health centers on AMC/AMU/AMR activities.	Number of facilities trained on AMC/AMU/AMR activities	8	AMRCC, MOH	ICAP, WHO, OIE, FAO		X	X	X	X			
		Collect, analyze, and report AMR data quarterly at the laboratory level in the AH sector.	Number of AMR Quarterly reports from AH shared with AMRCC	20	AMRCC, MOA	ICAP, WHO, OIE, FAO	X	X	X	X	X			
		Collate annual evidence to guide use of antibiotics in managing infectious diseases in HH and AH.	Number of desk review reports of AMR evidence	5	AMRCC, MOA, MOH	ICAP, WHO, OIE, FAO	X	X	X	X	X			
		Selection of antibiotics based on the bacterial susceptibility profiles in both AH and HH sites.	% of eligible samples with AST results in AH	100%	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO								
			% of eligible prescriptions in	100%			X	X	X	X	X			

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline								
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5				
			HH accompanied by AST results												
		Profiling of antimicrobial resistance patterns in AH and HH.	% of resistant antibiotics identified	<10%	AMRCC, MOH, MOA	ICAP, WHO, OIE, FAO	X	X	X	X	X				
		Provide support in the revision (add/remove antibiotics) of STGs/ EML in HH	STGs/EML revised on a 2-year basis	2	AMRCC, MOH	ICAP, WHO, OIE, FAO		X	X	X	X				
SO5	Enhance leadership, governance, coordination, and investment in containing AMR														
5.1.	Strengthen capacity the One Health Committee (OHC) to provide co-ordination oversight and leadership for AMR containment	Strengthening of the AMRCC functions: • Training on one health • Revising TORs as needed	Number of trainings and revised TORs	4	AMRCC,	ICAP, WHO, OIE, FAO	X								
		Advocate/ ensure AMR agenda is included in national sector specific strategic plans	All sectors with AMR plan/component	3	OHC, AMRCC	ICAP, WHO, OIE, FAO	X								
		Ensure that AMR activities are prioritized in sector specific budget allocation	Key ministry budgets with AMR component	3	OHC, AMRCC	ICAP, WHO, FAO, OIE	X	X	X	X	X				
		Support the commissioning of the AMR strategic plan	AMR strategic plan launched and disseminated	1	OHC, AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X								
		Facilitate semi-annual OHC meetings	Number of OHC meetings	10	OHC, AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X				
		Facilitate the development/review of National level Antimicrobial stewardship committee TOR	Approved TORs in place	1	OHC, AMRCC, MOH,	ICAP, WHO, OIE, FAO	X								

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline							
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5			
					MOA, MONRE									
		Support the Medicine Regulatory Authority to review the status of implementation of the Medicines and related substances act 2016	Number of review meetings	5	OHC, AMRCC	ICAP, WHO, OIE, FAO	X	X	X	X	X			
		Promote evidence-based policy development/review and decision making through AMR data dissemination, use, as well as increasing literacy on AMR issues.	Number of review meetings conducted	5	OHC, AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X			
		Facilitate the establishments of AMR TWG involving all stakeholders including private firms and developmental partners.	established AMR TWG	1	OHC, AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X						
		Facilitate quarterly AMR and AMU/C data sharing, reviews by the TWG and reporting to the AMRCC.	Number of review meetings conducted	20	AMRCC	ICAP, WHO, OIE, FAO	X	X	X	X	X			
5.2.	Strengthen national partnership, coordination, and collaboration at all levels	Organize validation and dissemination meeting on AMR implementation plan with stakeholders.	Number of dissemination meetings	3	AMRCC	ICAP, WHO, OIE, FAO	X							
		Support key ministries to organize semi-annual AMR data review meetings to sensitize stakeholders, providers, policy makers on emerging AMR/AMU/AMC issues and formulate recommendations to address these issues.	Number of AMR data review meetings	10	AMRCC	ICAP, WHO, OIE, FAO	X	X	X	X	X			
		Organize quarterly AMRCC meetings to review progress of the implementation plan.	Number of review meetings	20	AMRCC	ICAP, WHO, OIE, FAO	X	X	X	X	X			

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline				
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5
		Organize round-table forums with stakeholders to discuss AMR resource mobilization and co-ordination mechanisms.	Number of meetings	2	OHC, AMRCC	ICAP, WHO, OIE, FAO	X	X	X	X	X
5-3.	Strengthen regional and international AMR partnerships and collaboration	Organize quarterly co-ordination meetings with the Tripartite representatives in country (WHO, OIE, FAO) to discuss progress, challenges, and gaps in technical support of the AMR strategy implementation.	Number of meetings	20	AMRCC	ICAP, WHO, OIE, FAO	X	X	X	X	X
		Strengthen collaboration with regional organizations such as Africa CDC and ASLM to build capacity for AMR surveillance in Eswatini through regular meetings	Number of meetings	10	AMRCC, OHC	ICAP, WHO, OIE, FAO	X	X	X	X	X
		Collaborate with neighboring and regional/international partners on AMR containment, research in medicines, diagnostic tools, vaccines, and interventions through exchange update meetings.	Number of meetings	5	AMRCC, OHC	ICAP, WHO, OIE, FAO	X	X	X	X	X
		Establish a one health triad electronic system for adequate regulation and monitoring of medicines importation and distribution.	Electronic system in place	1	MOH, MOA	ICAP, WHO, OIE, FAO	X	X			
5-4.	Strengthen cross border collaboration for importing and exporting plant, animal, and	Ensure import regulation documents for animal and human health sectors are available and used at customs offices and borders.	Import regulation document in place	2	AMRCC, MOA, MOH	ICAP, WHO, OIE, FAO	X	X			
		Training and awareness: <ul style="list-style-type: none"> Provide trainings to veterinary staff working at ports of entry. Create awareness to customs staff on the regulations for human health and agricultural imports. 	Number of customs officials trained	100	AMRCC, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X	X	X

Activity No	Objective	Key activities	Performance measure	Target	Responsible		Timeline				
					Lead	Supporting	Y 1	Y 2	Y 3	Y 4	Y 5
	human medicines	Work closely with customs services to establish systems for tracking of imported medicines, plants, and animals at ports of entry.	Systems established	1	AMRCC, MOH, MOA, MONRE	ICAP, WHO, OIE, FAO	X	X	X		
		Conduct mid and end-term review of AMR strategic plan implementation.	End term review conducted	2	AMRCC, OHC	ICAP, WHO, OIE, FAO		X			X
		Develop the next 5-year AMR strategic plan (2023-2027).	Follow on strategic plan in place	1	AMRCC, OHC	ICAP, WHO, OIE, FAO		X			
5.6.	Strengthen in-country One Health co-ordination mechanism	Develop a concept note for improving One Health governance and co-ordination.	One Health Concept note in place	1	OHC, AMRCC	ICAP, WHO, OIE, FAO	X	X			
		Advocate for consolidation and strengthening of governance and co-ordination of all public health issues in the one health context	Number of advocacy meetings conducted	5	OHC, AMRCC, IHR focal point	ICAP, WHO, OIE, FAO	X	X	X	X	X

