# The Antimicrobial Resistance (AMR) MULTI-PARTNER TRUST FUND

Combatting the rising global threat of AMR through a One Health Approach

# **Country Proposal Submission TEMPLATE**

Full proposal overview		
Country	Zimbabwe	
Project title	AMR MPTF: Combating AMR using One Health Approach in Zimbabwe	
Implementing entities	WHO, FAO and OIE in close collaboration with the AMRCG, and its technical working groups, will support implementation of AMR activities as outlined in the Zimbabwe National Action Plan (NAP).	
Timeframe	<b>24</b> months – (estimated start date)	
Lead Tripartite Focal Point		
Name	Stanley Midzi	
Agency	World Health Organisation (WHO)	
Title	MPN/Health Systems Strengthening Advisor	
E-mail	 MidziS@who.int	
Telephone number (include	263772104254	
country and city code)		
Address:	– 82-86 Enterprise Road, Highlands, Harare, Zimbabwe	
Counterpart Tripartite Focal Poi		
Name	Ólafur Valsson/Josphat Nyika	
Agency	World Organisation for Animal Health (OIE)	
Title	Programme Officer AMR/OIE Delegate Zimbabwe	
E-mail	o.valsson@oie.int	
Telephone number (include country and city code)	+26775511354/+3548931114 (Olafur Valsson)	
Name	Kululeko Dube	
Agency	Food and Agriculture Organisation (FAO)	
Title	Livestock Officer	
E-mail	Kululeko.dube@fao.org	
Telephone number (include country and city code)	+263785888850	
Other Implementing Partners	Ministry of Health and Child Care, Ministry of Lands, Agriculture, Water, and Rural Resettlement, Ministry of the Environment, Climate Change, Tourism and Hospitality Industry, Ministry of Education and other related governmental agencies, such as Medicines Control Authority of Zimbabwe (MCAZ), Civil Society Organisations, the Infection Control Association of Zimbabwe, the Custom Authorities (Zimbabwe Revenue Authority), farmer associations, media and other stakeholders.	
Budget		
Total amount (USD) based on budget summary in Annex	USD 999 951	

Total amount (USD) allocated to each Tripartite partner	
Background	The Tripartite and Ministries responsible for human, animal and environment health, have led antimicrobial resistance (AMR) mitigation interventions through the One Health Approach in Zimbabwe. The Zimbabwe One Health AMR National Action Plan (NAP) 2017-2021 is the framework guiding AMR and antimicrobial use (AMU) surveillance in the country. The NAP also helps to plan the development and implementation of a comprehensive national communication and awareness of AMR and ways to minimize its development and spread in humans, animals and the environment, building laboratory diagnostic capacity and research and development. The NAP was developed by the Government of Zimbabwe, through the AMR core group (AMRCG), which conducted a comprehensive situational analysis of AMR in Zimbabwe in the human, animal and environmental sectors. The 2015 AMR situation analysis gathered information about the current state of AMR, contributing factors and AMU in Zimbabwe from the human, animal, agricultural and environmental sectors. The results showed that there was significant and growing resistance to common infections such as TB, malaria, HIV, respiratory infections, sexually transmitted infections (STIs), urinary tract infections (UTIs), meningitis and diarrheal diseases. Importantly, the situation analysis found that o major driver of resistance has been increased antimicrobial consumption in both humans and animals. According to Joint External Evaluation (IEE) of IHR Core Capacities Report (2018), the National Microbiology Reference laboratory serves as the National Coordinating Centre for the AMR surveillance network of 17 sentinel sites are monitoring only two of the eight WHO priority pathogens – Salmonella spp. and Escherichia coli. Antimicrobials are widely used in the production of food animals and are available without prescription or veterinary oversight. Since the launch of Zimbabwe AMR NAP on 28 Sept 2017 by the three respective ministers responsible for human, animal and environment health, there has been slow impl

	mitigate emergence and maintenance of AMR to protect the health of humans and animals, and the food chain.
	Gaps still exist in terms of rational AMU, biosecurity and hygiene in animal husbandry, national IPC programme and capacity of MCAZ to monitor AMU. There is an infection prevention and control (IPC) policy for healthcare facilities, however the programme is not well developed. Therefore, the opportunity presented by the AMR Multi-Partner Trust Fund (MPTF) is timely and substantial in its potential impact since it would enable Zimbabwe to scale up its planned activities to combat the rising threat of antimicrobial resistance under One Health Approach. The proposed activities for funding with AMR MPTF are generated from the broader concept note developed by the government One Health team. The concept note was developed from the Zimbabwe AMR NAP and focuses on outcomes and outputs that link to the impact it addresses related to behaviour change, improved infection prevention and control, use of alternatives to antimicrobials, prudent use and surveillance.
	The JEE recommends prioritisation of awareness creation, AMR surveillance, antimicrobial stewardship, and healthcare associated infection prevention programs, formally reporting surveillance data from all nationally designated surveillance sources/sites and expanding AMR surveillance to additional pathogens. The intervention under this project are fully aligned to the objectives of NAP and recommendations of the JEE and will build upon the efforts of a project titled Engaging the Food and Agriculture Sectors in sub-Saharan Africa and South and South-east Asia in the Global Efforts to Combat Antimicrobial Resistance using a One Health Approach, funded by Fleming Fund that was implemented by FAO (2017-2019). Working under the one health approach, the project aimed at improving awareness and strengthening governance on AMR and AMU, and developing capacity for surveillance and monitoring. The national IPC programme has also benefited from the US President's Emergency Plan for AIDS Relief (PEPFAR) funding.
	The Zimbabwe One Health AMR NAP 2017-2021 was launched on 28 September 2017 after a comprehensive situation analysis of AMR and AMU in the country in 2015. The findings informed the development of AMR NAP (aligned to the Global Action Plan's (GAP) five strategic areas, also considering the FAO Action Plan on AMR 2016-2020 and the OIE AMR Strategy, which outlined a systematic way to tackle the growing problem based on all available evidence and best practices.
Status of National Action Plan for AMR	Within the framework of the NAP, the Zimbabwe AMR core group (AMRCG) was established to coordinate AMR mitigation activities and meet quarterly. However, the meetings have not been regular due to resource limitations. The AMRCG is accountable to the Permanent Secretary in the Ministry of Health and Child Care, the office responsible for leading national AMR activities. The Core Group also reports to the Permanent Secretaries through the advisory committees in the Ministries responsible for Agriculture, and the Environment. While there has not been any review of the NAP, all core group members are still active.

	The Tripartite played a leading role in fostering One Health approaches, specifically in strengthening multi-sectoral platforms for priority zoonotic and emerging diseases by working in close coordination with concerned stakeholders. The Tripartite are members of the Core group and provide technical support to line ministries, coordinating activities and sourcing funds to finance the AMR activities. The Tripartite actively participate in the mobilisation of resources in line with the planned activities. A number of private sector players have also been involved in formulation of the AMR NAP, some are members of TWGs while some participated in an AMR surveillance pilot project. These include among others, private laboratories such as Fivet and Lancet Laboratories, Private pharmacies and hospitals and one of the major producers of day-old broiler chicks, Irvine's Chickens	
Project Summary		
Impact	AMU associated behaviours and practices sustainably improved in critical sectors in Zimbabwe	
Outcome(s)	<ol> <li>Use of antimicrobials optimized in critical sectors</li> <li>Improved understanding of AMR risks and response options by targeted groups</li> </ol>	
Outputs and Key activities	Summary of the selected Outputs from the Tripartite AMR Results Matrix Summary of prioritised Activities from the concept note submission	
Project Outputs	Main Activities	
<ol> <li>Systems for biosecurity and IPC strengthened in targeted areas</li> </ol>	<ul> <li>Encourage enhanced use of vaccines</li> <li>Promotion of use of vaccines as an alternative to irrational use of antibiotics on Theileriosis in Cattle and Typhoid in Humans. Lead: Joint FAO and OIE in animal health sector, WHO in human health sector</li> </ul>	
Summary of deliveries of collective activities under this output (Benefits of the activities):	<ul> <li>Animal husbandry: Develop and implement of biosecurity and hygiene standards</li> <li>✓ Upscale the Farmer Field Schools in the broiler value chain to promote adoption of good husbandry practices (Lead: Joint FAO and OIE)</li> </ul>	
The activities under this output will contribute to achievement of the following Sustainable Development Goals (SDGs): 1,2,3,5,15 and 17	<ul> <li>A Revise National IPC Policy and Strategic plan, the National IPC guidelines and training programme to strengthen evidence-based</li> </ul>	
	Rationale: The national IPC programme has benefited from PEPFAR Lead: WHO	
<ol> <li>Systems for optimized use strengthened in critical sectors</li> </ol>	<ul> <li>Provide support to MCAZ (human and veterinary medicines)</li> <li>Conduct supply chain mapping of distribution of human and veterinary medicines including cross border trade and trade in illegal, falsified and substandard medicines (human and veterinary) to understand underlying issues and develop interventions. Collaboration with national</li> </ul>	
Summary of deliveries of collective activities under this	customs and experts in WHO and OIE on falsified, substandard and illegal drugs.	

<b>output</b> (Benefits of the activities):	<ul> <li>Conduct spot checks on Falsified, Substandard (FS) and illegal drugs at ports of entry especially the Northern Border Post</li> </ul>		
The activities under this output will contribute to achievement of the following Sustainable Development Goals (SDGs): 1,2,3,5,15 and 17	<ul> <li>Lead: Joint FAO, OIE, WHO</li> <li>Support compilation of best practices in food production</li> <li>Conduct a prospective study embedded within an existing broiler value chain on AMR and AMU surveillance in broiler farms incorporating production and economic data to make economic case for AMR, with a possibility to widen up to other value chains</li> </ul>		
	Lead: FAO		
<ol> <li>Improved capacity to design awareness raising, behaviour change and educational activities/materials</li> </ol>	Conduct studies among specific targeted groups to understand behavioural drivers of AMU and AMR in order to inform design of appropriate intervention strategies. Conduct Knowledge, Attitudes and Practices (KAP)/ studies to understand key drivers of AMR within different stakeholder groups and develop specific behaviour change intervention targets relevant for each stakeholder. (Joint FAO, OIE, WHO)		
Summary of deliveries of collective activities under this output (Benefits of the activities):	<ul> <li>Conduct behavioural change intervention study among middle level/grade primary school goers incorporating the community of practice among other interventions</li> </ul>		
activities):	<ul> <li>Develop and pilot behaviour change Community of Practice (COP) interventions</li> </ul>		
The activities under this output will contribute to achievement of the following Sustainable Development Goals (SDGs): 1,2,3,4,5,15 and 17	Lead: Joint FAO, OIE, WHO The overall benefit of the compiled activities under this output is the design of appropriate behaviour change interventions for the various stakeholder groups.		
Link to National Action plan	The proposed activities for funding with MPTF are generated from the broader concept note developed by the government One Health team. The concept note (CN) was developed from the Zimbabwe AMR NAP. The CN focuses on outcomes and outputs that link to the impact it addresses related to behaviour change, including improved infection prevention and control, use of alternatives to antimicrobials and prudent use of antimicrobials. It leverages existing capacities as for instance production of vaccines in the veterinary sector and supports behaviour change from massive use of antimicrobials (tetracyclines for Tick Borne Diseases) to vaccination. It also addresses some key areas of concern in Zimbabwe being the use of illegal, substandard and falsified drugs in both human and animal health. It thereby supports promotion of the rationale use of antimicrobials, in line with the NAP on AMR. Furthermore, it proposes an innovative approach to the reduction of antimicrobial use by supporting mass vaccination of populations at risk.		
Link to country's development priorities	The proposal has been developed within the guidance of NAP and it aligns well with Zimbabwe United Nations Development Assistance Framework (ZUNDAF); WHO Country Cooperation Strategy III for 2016 - 2020 (CCS); FAO Country Programming framework 2016-2020 and Zimbabwe Agenda for Sustainable Socioeconomic Transformation (ZimAsset).		

We the responsible officers of the Tripartite organisations take responsibility for the efficient delivery of this proposal. We confirm that the proposal has been developed in close collaboration with government counterparts and that it is aligned with the wider agenda around the Sustainable Development Goals. We will work to ensure that addressing AMR is appropriately included in the United Nations Sustainable Development Cooperation Framework, and that there is a strategy to sustain and scale up the outputs of this work

Name: Dr Patrice Talla Takoukam	Sign
FAO Representative in Zimbabwe	9,00
	Date: 20 1100 MOL
Name: Dr Moetapele Letshwenyo	Signature:
OIE Representative for Southern Africa	
3	
	Date: 19/05/2021
Name: Dr Alex N Gasasira	Signature:
WHO Representative in Zimbabwe	
	Date: 20・05,2021

#### **Joint Programme Description**

### **1** Baseline and situation analysis

#### 1.1 Problem statement (max 1 page)

The gains achieved through the use of antimicrobials in treating many diseases and promoting the health and well-being of humans and animals are now being threatened by development of antimicrobial resistance on a global scale. Zimbabwe with support of the Tripartite of WHO, FAO and OIE undertook a comprehensive situation analysis of the antimicrobial resistance in the country in 2015. The situation analysis gathered information about the current state of AMR, contributing factors and antimicrobial use in Zimbabwe from the human, animal, agricultural and environmental sectors. The results showed that there was significant growing resistance to common infections such as TB, malaria, HIV, respiratory infections, STIs, UTIs, meningitis and diarrheal diseases in humans. In animals, resistance has been detected in *Escherichia coli* to tetracyclines, cloxacillin, erythromycin, ampicillin and ciprofloxacin. Findings of the situational analysis showed that milk samples contained enteric bacteria and Staphylococcus aureus with high resistance to tetracycline, lincomycin, penicillin and streptomycin. Salmonella in chickens from commercial and rural free-range farms showed high resistance to tetracyclines and ampicillin. One major driver of resistance has been increased antimicrobial consumption in both humans and agricultural sector.

The findings informed the development of the AMR NAP, which outlined a systematic way to tackle the growing problem based on all available evidence and best practices. The AMR NAP identified its key strategic objectives as:

- Raise awareness and educate the population, professionals and policy makers on AMR.
- o Improve understanding of the AMR burden and antimicrobial use patterns through surveillance

- Reduce the need for antimicrobials by improving infection prevention and control, farm practices and biosecurity, water sanitation and hygiene, and immunisation.
- Improve controlled access and optimise the use of antimicrobials in humans and animals
- Sustainable investment into AMR and research into alternatives to antimicrobials.

There has been slow implementation of the planned AMR activities mainly due to financial constraints against a background of a poorly performing economy. The Tripartite will build upon ongoing programmes to support national efforts through a set of synergistic activities under a One Health approach to tackle the following major problems, which form the basis of the proposed intervention;

- Limited antimicrobials alternatives/ knowledge of: Most farmers use Tetracycline to prevent and treat animal diseases, such as tick-borne diseases and the growing morbidity of typhoid (that is almost endemic) countrywide is also resulting in indiscriminate use of antibiotics in humans. The Tripartite will promote greater reliance on preventive human and veterinary medicine through use of vaccines as an alternative to irrational use of antibiotics on Theileriosis in animals and Typhoid in humans.
- 2. Suboptimal practices/ behaviours: The broiler value chain has been a considerable user of antimicrobials in their production systems based on the production methods and the demand from the consumer for affordable products. Using the Farmer Field Approach, the Tripartite will support compilation of best production practices and promote adoption of good husbandry practices in the broiler value chain. The farmer field school on the broiler value chain was developed following the findings from a KAP study conducted by FAO, which showed that knowledge does not translate to practice. This project will support developing and implementing biosecurity and hygiene standards, and prudent use of antimicrobials.
- 3. Inadequate IPC systems: The national IPC programme has benefited from PEPFAR funding from 2011-2018. An audit of 43 health facilities in 2019 identified gaps in implementation that included lack of surveillance of Hospital Acquired Infections (HAIs) and associated AMR. The Tripartite will support the revision of the National IPC Policy and Strategic plan, the National IPC guidelines and training programme to strengthen evidence-based practises to address AMR transmission. It will also strengthen the National IPC programme by supporting a pilot surveillance system of HAI in two selected health facilities.
- 4. Insufficient/low quality data on AMR/AMU: The project will support the MCAZ to conduct supply chain mapping of distribution of human and veterinary medicines including cross border trade and trade in illegal, falsified and substandard medicines (human and veterinary) to understand underlying issues and develop appropriate interventions. In collaboration with national customs and experts in WHO and OIE on falsified, substandard and illegal drugs spot checks will be conducted at the Northern Border of Zimbabwe.
- 5. Limited knowledge on AMR by the public: The project will provide support to campaigns or targeted awareness/behaviour change activities and education for specific target groups such as, policy makers, veterinarians, farmers, school children and food producers etc. Targeted awareness and sensitisation programmes will aim to improve awareness of the risks of AMR and promote behaviour change.

Outcome	Outputs	Activities	Indicators (Baseline Data)
1 Use of	1.1 Systems for	1.1.1 Promote use of vaccines as	• % reduction in Theileriosis in
antimicrobials	biosecurity and	an alternative to irrational use of	pilot intervention herds as
optimized in	IPC	antibiotics on Theileriosis in	compared to control herd
critical sectors		animals and Typhoid in humans	(baseline data will be

#### **1.2 AMR MPTF Results Matrix (Please refer to Appendix 3)**

	strengthened in targeted areas	1.1.2 Assess impact of FFS interventions on AMU, farm biosecurity levels, and productivity and identify effective techniques to roll out widely 1.1.3 Revise National IPC Policy and Strategic plan, the National IPC guidelines and training programme to strengthen evidence-based practises to address AMR transmission 1.1.4 Strengthen National IPC programme by supporting a pilot surveillance system of HAI in selected health facilities	<ul> <li>collected at beginning of the randomized control Trial (RCT)).</li> <li>% reduction in typhoid infection among the vaccinated population (pre vaccination data will form the baseline and will be compared with post vaccination surveillance data)</li> <li>Number of districts covered by FFS (currently in 4 districts).</li> <li>Updated IPC Policy, Strategy and Guidelines (Strategy exists but it has lapsed, requires review)</li> <li>Number of facilities conducting HAI surveillance (No structured HAI surveillance in the country)</li> </ul>
	1.2 Systems for optimized use strengthened in critical sectors	<ul> <li>1.2.1 Conduct supply chain mapping of distribution of human and veterinary medicines including cross border trade and trade in illegal, falsified and substandard (FS) medicines to understand underlying issues and develop interventions.</li> <li>1.2.2 Work in partnerships with national customs and experts in WHO and OIE to conduct spot checks on FS and illegal drugs at ports of entry.</li> <li>1.2.3 Conduct a prospective study within the broiler value chain on AMR and AMU surveillance to make economic case for AMR, with a possibility to widen up to other value chains</li> </ul>	<ul> <li>Supply chain mapping conducted (limited data exists on supply chain in both sectors and even more limited information exists on cross-border trade, and on illegal, falsified and substandard medicines)</li> <li>Economic data collected (FAO piloting AMU data collection on selected broiler farms in 4 districts. However, economic data currently not being collected in the pilot districts)</li> </ul>
2 Improved understanding of AMR risks and response options by targeted groups	2.1 Improved capacity to design awareness raising, behaviour change and educational activities/materi als	2.1.1 Conduct a KAP study to understand key drivers of AMR within the dairy and health worker (human & animal) sectors and develop specific key messages and interventions relevant for each sector	<ul> <li>KAP studies in selected sectors conducted (KAP study conducted on broiler farmers by FAO)</li> <li>Behaviour change COP integrated in development of interventions.</li> <li>NAP for Zimbabwe revised.</li> </ul>

2.1.2 Develop and pilot behaviour change Community of Practice (COP) interventions	
2.1.3 Revise the NAP for Zimbabwe to incorporate end term evaluation recommendations	
2.1.4 Pilot a behaviour change interventional study among middle level school children to improve on KAP on AMR integrating COP and other interventions.	

## 1.3 Stakeholder mapping and target groups (max 2 pages)

The key stakeholders and their involvement in addressing AMR at national level are as follows:

Stakeholder	Involvement in addressing AMR at the national level	
AMR Core Group (AMRCG)	Responsible for coordinating the AMR platform and inter-sectoral processes. Mobilising resources for the national response against AMR. AMRCG ensure the one health approach in AMR activities. Dissemination of AMR data.	
Ministry of Health and Child Care (MoHCC)	Statutory mandate on AMR. Member of the AMRCG. Provision of facilities and human resources for AMR activities. Antimicrobial sensitivity testing. Implementation of IPC, EPI and major user of AMs. Production of quality AMR data. Education and awareness of AMR.	
Ministry of Lands, Agriculture, Water, and Rural Resettlement (MLAWRR)	Statutory mandate on AMR. Member of the AMRCG. AM sensitivity testing. Vaccine development for tick borne diseases (Babesiosis, Anaplasmosis and Theileriosis). Supporting biosecurity in livestock production. Assessment and capacity building of laboratories for surveillance and diagnostic capacity. AMR education and awareness	
Ministry of the Environment, Climate Change, Tourism and Hospitality Industry	Statutory mandate on environmental monitoring and surveillance for AMR needs. Promoting biosecurity and hygiene. Member of the AMRCG. Enforcing proper disposal of hospital waste. Part of teering committee that is developing the National AMR strategy. Education and awareness.	
Ministry of Education	Education and awareness	
Medicines Control Authority of Zimbabwe (MCAZ)	Member of the AMRCG. Custodian of medicines registers and electronic import/export system for human and veterinary medicines. Stewardship over the prudent use of human Critically Important antimicrobials (CIA) and the List of antimicrobial agents of veterinary importance.	
Academia and Research Special competencies in AMR research and provision of advisory sellinstitute		
Civil Society Organisation	Advocacy and community mobilisation which are relevant for the AMR. Awareness raising	
Media AMR reporting		

Private Sector	Supply of antimicrobial agents for use in hospitals, agricultural sector and	
	industry.	
Policy	Policy and legislative role.	
makers/parliamentarians		

## 2 Programme strategy

## 2.1 Overall strategy (max 2 pages)

The desired impact of this project is to ensure that AMU associated behaviours and practices are sustainably improved in all critical sectors. This will be achieved through a set of diverse but interrelated activities aligned to the AMR GAP priorities and initiatives, which provides a roadmap towards slowing down the pace of AMR development and enhancing sustainable reliance on AMU in public-, animal and environmental health promotion. The GAP sets out five strategic objectives:

- To improve awareness and understanding of antimicrobial resistance;
- To strengthen knowledge through surveillance and research;
- To reduce the incidence of infection;
- To optimize the use of antimicrobial agents; and
- Develop the economic case for sustainable investment that takes account of the needs of all countries, and increase investment in new medicines, diagnostic tools, vaccines and other interventions.

The proposed activities are well aligned to the GAP priorities and initiatives, and covers all the five strategic objectives areas. They also provide novel ideas to achieve some of the expected outcomes of the NAP while innovatively generating interest on other key aspects on health, which were not previously captured such as production and use of vaccines. One major driver of resistance has been increased antimicrobial consumption in both humans and animals. Vaccination programmes reduce the need for antimicrobials and have capacity to generate interest from global donors as USAID and the Gates Foundation or alternatively sustain themselves through a structured cost recovery mechanism. According to DVS, 65% of the cattle mortality in Zimbabwe is attributed to tick borne diseases for which tetracyclines have been extensively used by farmers for chemoprophylaxis and treatment. Supporting vaccine production and use will drastically reduce the need to use antibiotics in the cattle sector.

The AMR MPTF will be implemented at national level by the Tripartite in collaboration with the competent authorities for Human-, Animal- and Environmental Health under the coordination of the AMRCG to address constraints in knowledge and institutional capacity to address AMR. The project will take a deliberate approach of working through and in close collaboration with the Government Institutions, who will in turn take over the management of the activities to ensure continuity. The activities under the proposal will build on existing and running programmes being implemented by Government institutions, thus will utilise the same human resources already employed to continue running the programmes when the project ends. This project aligns with several national plans. It aligns well with Zimbabwe United Nations Development Assistance Framework (ZUNDAF 2016-2021); WHO Country Cooperation Strategy III for 2016 - 2020 (CCS); FAO Country Programming framework 2016-2020 and Zimbabwe Agenda for Sustainable Socioeconomic Transformation (ZimAsset). The activities are also well linked to the priority local plans such as the Presidential 100-day programme, thereby also generating possible entrenchment of activities in Government programmes.

The project seeks to integrate behaviour change COP and incorporate achievements and lessons learnt from previous and on-going interventions undertaken, and to continue to enhance and harmonize AMR

MPTF support with that of other development partners working in Zimbabwe. All activities under this project will be conducted in line with the guiding principle of the NAP, which is Whole-of-society engagement through the One Health Approach which embraces an integrated, unified effort across sectors, addressing the cross-cutting nature of AMR. More intense and in-depth stakeholder engagement and studies proposed under this project will not only ensure stakeholders buy in, but that interventions are informed by real risks prevailing with the implementation context. One of the critical components of this proposal is the KAP and behavioural studies to improve understanding of AMR risks and underlying factors. This will ensure interventions are tailor-made and focused to address and mitigate the real challenges besetting the country. The activities under this project will focus on behaviour change, which is transformative.

The tripartite will under this project seek to build capacity of the AMR Secretariat. This will ensure proper coordination of AMR activities and strengthening the one health approach through providing the necessary sector coordination.

Given the experience the tripartite has had so far with limited funds to assist with implementation of the AMR programme; the proposed activities are practical and will potentially trigger synergies with already existing One Health programmes thereby ensuring sustainability and value for money. Mobilising private sector funding will bridge the persistent budgetary constraints of the competent authorities and have potential for self-sustenance.

### 2.2 Theory of Change (max 2 pages)

The Tripartite recognises that design and management of AMR interventions involves several intermediate outcomes and conditions. The Theory of Change is premised on the understanding of underlying challenges related to AMR by the Tripartite having been involved in One Health and AMR activities for many years and having been part of the development of related government systems. As regular participants to One Health and AMR forums, the Tripartite is fully conversant of the various projects and initiatives being implemented in Zimbabwe and will build upon such projects to avoid duplication of efforts.

The project Combatting AMR using One Health Approach in Zimbabwe Theory of Change (TOC) illustrates three layers of pathways to change. First having identified and prioritised the problems to address, the Tripartite defined the desired impact of the project as AMU associated behaviours and practices sustainably improved in critical sectors.

Second, the Tripartite defined illustrative program outputs from the matrix that will contribute to sustainably improving AMU associated behaviours and practices in critical sectors in Zimbabwe. Different contexts, varying capabilities, and specific resource endowments and particular needs in the various sectors will require a different package of interventions suited to building these capacities. Three outputs were identified as being critical to the pathway. Key activities to achieve each of the outputs were identified. The selected outputs and activities necessary to achieve the output selected are as follows;

- 1. Systems for biosecurity and IPC strengthened in targeted countries
  - a. Promoting use of vaccines as an alternative to irrational use of antimicrobials
  - b. Promoting adoption of good animal husbandry practices
  - c. Strengthening evidence-based practises to address AMR transmission
  - d. Supporting surveillance system of HAI in selected health facilities
- 2. Systems for optimized AMU strengthened in critical sectors
  - a. Conducting supply chain mapping to gain understanding of distribution pathways of human and veterinary medicines

- b. Conducting spot checks at ports of entry for falsified, substandard and illegal human and veterinary medicinal products
- c. Conducting a prospective study in the broiler sector to gather economic data associated with AMR
- 3. Improved capacity to design awareness raising, behaviour change and educational activities
  - a. Conducting KAP studies to understand key drivers of AMR
  - b. Integrating behaviour change COP in the design of interventions
  - c. Pilot and evaluate interventions

Third, the Tripartite defined the outcomes that will be achieved and the causal pathways that will lead to those outcomes. The project's theory of change assumes that two critical results must be achieved for AMU associated behaviours and practices to be sustainably improved in critical sectors. These outcomes will result in improved understanding of the risks associated with improper AMU and response options to mitigate the risks by targeted groups resulting in optimal use of antimicrobials. The two outcomes selected are defined as:

- 1. Use of antimicrobials optimized in critical sectors
- 2. Improved understanding of AMR risks and response options by targeted groups

Each of these core outcomes will be rigorously measured by the Tripartite and project partners over time, using core indicators developed.

The Theory of Change can therefore be summarized as follows:

**IF:** Systems for Biosecurity and IPC, and systems for optimised use of antimicrobials are strengthened (output 1 and output 2)

And IF: Capacity to design awareness raising, behaviour change and educational activities/materials is improved; (output 3)

**THEN:** Understanding of AMR risks and response options by targeted groups will improve and use of antimicrobials in critical sectors will be optimised, (outcomes)

**And Then**: AMU associated behaviours and practices in the critical sectors will be sustainably improved. (impact)

The TOC is summarised as follows:

Impact	AMU associated behaviours and practices sustainably improved in critical sectors		
Outcomes	♠		
	Outcome 1 Use of antimicrobials optimized in critical sectors		Outcome 2 Improved understanding of AMR risks and response options by targeted groups
Outputs	<b>•</b> •		<b>†</b>
	Output 1.1 Systems for biosecurity and IPC strengthened in targeted areas	Output 1.2 Systems for optimized use strengthened in critical sectors	Output 2.1. Improved capacity to design awareness raising, behaviour

			change and educational activities/materials
Activities	+	•	<b></b>
	<ul> <li>1.1.1 Promote use of vaccines</li> <li>1.1.2 Upscale the Farmer Field</li> <li>Schools in the broiler value</li> <li>chain</li> <li>1.1.3 Revise National IPC Policy</li> <li>and Strategic plan &amp; guidelines</li> <li>1.1.4 Strengthen National IPC</li> <li>programme</li> </ul>	<ul> <li>1.2.1 Conduct supply chain mapping of distribution of human and veterinary medicines</li> <li>1.2.2 Conduct spot checks on FS and illegal drugs at ports of entry.</li> <li>1.2.3 Conduct a prospective study within an existing broiler value chain on AMR and AMU surveillance.</li> </ul>	2.1.1 Conduct a KAP study to understand key drivers of AMR 2.1.2 Develop and pilot behaviour change Community of Practice (COP) interventions 2.1.3 Conduct behavioural change intervention study among middle level/grade primary school children

### 2.3 Expected results and Narrative (max 2-3 pages, excluding tables)

Three key outputs will be pursued under this proposal. The first output is Systems for biosecurity and IPC strengthened in targeted areas. The activities under this output will contribute towards rational use of antimicrobials in critical sectors. Using the Farmer Field Schools (FFS) approach the project will promote adoption of good animal husbandry practices to improve biosecurity and hygiene standards in the broiler value chain as a tool for disease prevention and control. The broiler value chain uses considerable amounts of antimicrobials in their production systems based on the production methods and the demand from the consumer for affordable products. It has been demonstrated in other parts of the world that the use of antimicrobials can be diminished drastically by adoption of good animal husbandry practices in the broiler industry, with recorded reduction and productivity and this project will build upon these gains. The immediate benefits will be reduction in use of antimicrobials in the broiler industry which leads to the reduction in residues above the maximum residue levels of antibiotics in food products, having direct impact on the health and wellbeing of the public. FAO jointly with OIE will be accountable for this activity.

The project will promote the use of vaccines as an alternative to irrational use of antibiotics in animals and in humans. Zimbabwe has high incidences of tick-borne diseases such as Heartwater, Anaplasmosis, Babesiosis and Theileriosis which have been characterised by very high mortalities. Tick borne diseases account for 65% of all cattle mortalities in Zimbabwe according to DVS. Most farmers use Tetracyclines for chemoprophylaxis and indiscriminate treatment of tick borne and other animal diseases. DVS through the CVL will be supported to produce, distribute and promote usage of Theileriosis vaccine among the farming community to reduce usage of Tetracyclines. The project will support with provision of consumables and logistical support for enhanced vaccine production and conducting randomised controlled trials for the theileriosis vaccine. A baseline study of AMU in a pilot area will form the base for reporting the reduction in use of tetracycline in animals in the pilot area. The project will seek to link CVL with private sector partners and other funded projects to support the production of vaccines on commercial terms and provide logistical support for vaccine distribution. FAO jointly with OIE will be accountable for this activity.

On the human side, sporadic cholera outbreaks and growing morbidity of typhoid (that is almost endemic) countrywide is resulting in indiscriminate use of antibiotics. Due to nonspecific typhoid diagnosis recurrent use of antibiotics is fuelling rise in antibiotic resistance. With support of GAVI the MOHCC is introducing typhoid and cholera (TCV) vaccination targeting children 9 months to 15 years. Sustained high

typhoid vaccination coverage integrated in routine Expanded Programme on Immunisation (EPI) will confer adequate herd immunity to reduce indiscriminate use of antibiotics in vulnerable populations. This activity will be a noble example of forming synergy between AMR and EPI in human health. Under this project a retrospective study on the impact of the vaccinations done within the catchment areas of 9 polyclinics and the antimicrobial prescription and usage in Harare will be conducted. Evidence generated will help to identify the risk factors and inform future vaccination programmes. The WHO will be the Tripartite partner to lead this activity.

The project will support the revision of the National IPC Policy and Strategic plan, the National IPC guidelines and training programme to strengthen evidence-based practises to address AMR transmission. It will also strengthen the National IPC programme by supporting a pilot surveillance system of HAI in two selected health facilities. The national IPC programme has benefited from PEPFAR funding from 2011-2018. An audit of 43 health facilities in 2019 identified gaps in implementation that included lack of surveillance of HAIs and associated AMR. The pilot proposed will initiate the development of an effective national system of surveillance that will explore electronic feedback systems to provide data to improve patient management, use of antimicrobials and inform national policy. Production of an updated National IPC Policy and strategic plan together with the National IPC guidelines is required to incorporate evidence-based practices and activities at National and health Facility level to reduce AMR transmission and align them with the "one health" approach. This will build on activities under the Fleming Fund Project, which is revising and strengthening the existing IPC curricula and develop continuous professional development (CPD) modules. This activity will be led by the WHO.

The second output is Systems for optimized use strengthened in critical sectors. The project will support MCAZ to conduct supply chain mapping of distribution of human and veterinary medicinal products, including medicated feed, and including cross border trade and trade in illegal and FS medicinal products (human and veterinary) to understand underlying issues and develop interventions. The study will identify problems and gaps that can inform decision making in the regulation of medicinal products (human and veterinary) and come up with mitigation measures. This activity will be led jointly by all Tripartite partners (FAO, OIE, WHO). In collaboration with national customs and experts in WHO and OIE on FS and illegal drugs, and law enforcement agents, spot checks will be conducted at Chirundu Border Post and other selected ports of entry. To sustainably mitigate illegal trade of medicinal products a multi-stakeholder task force involving the Tripartite, implementing partners, border control and law enforcement agents will need to be put in place to ensure cross border trade and trade in illegal and FS medicinal products are curtailed. This activity will be led by OIE.

The project will also support compilation of best practices in food production. A prospective study embedded within an existing broiler value chain on AMR and AMU surveillance will be conducted. This will incorporate economic data associated with AMR to make the economic case for AMR, with a possibility to scale up to other value chains. Activities under this output will contribute towards achieving the outcome on improved understanding of AMR risks and response options by targeted groups. Based on the results of a KAP study conducted by FAO and assessment of the FFS techniques, best practices will be incorporated into the FFS approach so that such practices are adopted by farmers. FAO is the Tripartite partner that will lead in these activities. Based on the findings of the end of term evaluation of the NAP which is supported with funding from the Flemming Fund, the project will support through a consultant to do scoping meetings to get further views from stakeholders and revise and update the NAP as necessary.

The third output is, improved capacity to design awareness raising, behaviour change and educational activities/materials. A KAP study to understand key drivers of AMR within the dairy sector and among human & animal health workers will be conducted and results will inform development of specific key

interventions relevant for each stakeholder integrating the community of practice (COP) approach. A pilot behavioural change study will be conducted among middle level school going children in three primary schools. The study will be done in three stages. The first stage will be a baseline KAP survey which will be undertaken to collect baseline data. This will be followed by an intervention period where COP and other behavioural insights will be applied to improve on KAP and nudge behaviour change. The final phase will be a follow up KAP survey which done at the end of the intervention period. Lead: Joint FAO, OIE, WHO. The overall benefit of the compiled activities under this output is the design of appropriate behaviour change interventions for the various stakeholder groups.

The project will support setting up of a full functional AMR Secretariat office as a way to support effective multi-sectoral working in the country. This will improve multisector coordination of AMR activities and strengthen the one health approach. This will build on the Country Project (Fleming Fund), which is funding quarterly meeting of the AMRCG, thereby creating synergies between the two projects and avoiding duplication of activities.

It is the end of 2022 and the AMR MPTF investment has come to an end. We envision the following scenarios:

- Various KAP surveys and behaviour change sudies among targeted stakeholder groups have been conducted and AMR risks and mitigation measures have been documented
- Appropriate interventions integrating behaviour change COP have been designed and piloted,
- •
- There is improved understanding of AMR risks and response options as demonstrated by the adoption of more preventive strategies for disease control.
- •
- A full functional AMR office is in place and there is improved multisector coordination of AMR activities
- National IPC Policy and Strategic plan, the National IPC guidelines and training programme have been revised to strengthen evidence-based practises to address AMR transmission.
- AMR mitigation measures have been incorporated into the curriculum for training of human and animal health workers from village level and above.
- Typhoid vaccination is incorporated and fully integrated into the national vaccination programme
- National vaccination guidelines and programmes for both human and animal sectors are in place.
- Linkages have been established with the private sector and other funded programmes for the support of production of tick-borne animal diseases vaccine and vaccination programmes are backed up by proper animal disease diagnosis to better assess the effectiveness of the programmes.
- Protocols for the development of vaccines against targeted tick-borne diseases are in place. Sensitivity testing is being done at all major laboratories and informs AMU.
- Broiler farmers have been trained and have adopted good husbandry practices to improve biosecurity and hygiene standards as a tool for disease prevention and control.

- The use of antimicrobials has reduced significantly and drugs withdrawal periods are being observed.
- There are coordinated effects between border control authorities and MCAZ in the prevention of smuggling and importation of unregistered, falsified and substandard drugs, with spot checks being regularly conducted using available intelligence for selection of consignments as guided by the training and the World Customs Organisation (WCO) experts.
- The NAP for Zimbabwe has been revised and updated as informed by the end term evaluation.

The Tripartite recognises the important role all gender and social groups especially women, youths and the disabled play in AMU. Poultry production is primarily done by these groups of people. To ensure women and other disadvantaged groups' participation in AMR mitigation, gender and vulnerability analysis will be included in the KAP and Behaviour Change studies to fully appreciate the role the various gender and social groups play in AMU and AMR mitigation. The project will develop and implement action plans and also address customs and policies that undermine the participation of certain gender groups in AMR mitigation. Throughout implementation, the project management will remain conscious of relationships and constraints for women and men in contributing to a gender empowerment plan that addresses gender biases and constraints in AMR control. Scheduling of training and activities will take into consideration the daily and seasonal calendars of the various gender groups to ensure inclusiveness.

## 2.4 Budget, sustainability and value for money (max 2 pages)

Greater value for money (WfM) will be achieved when all outputs and to a certain extent outcomes and impact for the money invested are delivered. Value for money considerations will be embedded into project management processes by adopting implementation models that combine quality, cost-effectiveness and equity. A key approach to ensure VfM will be through mobilizing a multidisciplinary OH team. The Tripartite will avoid duplication of activities being implemented by other projects by working through the coordination of the AMR Core group. This will help to build cost efficient synergies with any such projects to realise greater value for money. This means only identified and genuine gaps will be funded under this project.

This proposal was developed together with focal persons appointed by the Ministries who are signatories to the NAP. There is a strong buy-in and commitment from government to incorporate AMR activities into the routine work of these ministries. The project will be implemented in collaboration with government institutions. The government has committed to second staff in line with the AMR governance structure as provided for by the NAP as well as providing office accommodation to the AMR secretariat. This means that the project will utilise equipment and human resources within the partner government institutions, while also ensuring that there will be continuity when the project comes to an end. This project will also support capacity enhancement of the secretariat through personnel costs for a full time AMR Coordinator.

The sustainability of the impact and benefits of this project are highly dependent on the ability to continue mobilizing adequate resources to carry on with the essential activities. To sustain the impact of this project after the end of the joint Tripartite programme, a cost recovery mechanism in form of a revolving or privatised fund management system will be incorporated in the project. The project will foster strategic Public Private Partnerships (PPP) to enhance production and promote use of vaccines in animals. The inclusion of typhoid vaccination in the national guidelines for the EPI programme, will ensure that the vaccine will become accessible by the majority of people. This will build herd immunity to and sustainable reduces the need to use antimicrobials. Awareness programmes may also be tied up with the EPI programme. The inclusion of AMR in the training of health workers will help to continuously raise

awareness among the trainees who in turn will disseminate the information in the communities they work.

MCAZ is empowered to charge cost-recovery fees on regulatory services it provides and retain the income to fund its operations. All the AMR activities being implemented through MCAZ, are within the scope of funded regulatory mandate and as much as MCAZ will be able to sustain activities initiated under this project through self-financing.

The national AMR program is finalising the National AMR Communication and Awareness Strategy which proposes, among other activities, the use of print and electronic media, online and social media platforms, newspaper articles and other forms of media to reach the general public. The messages to be generated through this program will be factored into such future programs. This will ensure that the messages will continue to be broadcast after the MPTF funding has come to an end.

For the local authorities, the national AMR program works closely with the Environmental Management Authority (EMA) which is tasked through legislation with monitoring environmental health and policing offenders. EMA is being supported through the Fleming Fund to scale up its laboratory capacity. It will be possible, therefore, to conduct routine tests on water quality to assess the level of pathogens and thereby allow for corrective action to be taken. EMA officers will also routinely monitor the levels of garbage in the community and issue fines for any uncollected waste as a strategy to ensure maximum environmental hygiene.

For the farmers, the Zimbabwe Agricultural Growth Programme (ZAGP), an EU-funded initiative, works with farmers throughout Zimbabwe and the representatives work with the Ministry responsible for Agriculture during implementation. The presence of such bilateral partners will help disseminate the messages in their own constituencies. Small scale farming communities have dipping days where they gather at community dip tanks to dip their cattle. These informal meetings present an opportunity for trained veterinary extension workers to disseminate information on AMR on an on-going basis, as well as distributing IEC materials even after this project has ended.

### 2.5 Partnership and stakeholder engagement (max 2 pages)

The project implementation will be based on a stakeholder-driven approach and the entire project will build on joint reflections by the behaviour change COP, regulatory authorities and other key stakeholders on the situation, the constraints and the opportunities relating to AMR control. The tripartite has a significant presence in Zimbabwe and has actively supported almost all AMR activities in the country from supporting the comprehensive situation analysis assessment to the development of the NAP. Through the seed funds provided by the tripartite partners there have been significant strides in fulfilment of some of the NAP activities. The presence of the tripartite has continued to kindle interest among stakeholders amidst an economic constraint environment.

It is therefore without any doubt that the tripartite is adequately capacitated to support the country to carry out key activities in the NAP. The global M&E mission to Zimbabwe established an appropriate and useful AMR NAP Monitoring Framework which further elaborates the importance of the tripartite contribution to AMR work in Zimbabwe. The activities will be implemented within the framework of NAP and coordinated by the AMRCG. The guiding principle of NAP is Whole-of-society engagement including a One Health Approach. The AMRCG provides a platform for strengthening collaboration and information sharing between the human health, animal health, food safety and environmental health sectors to improve understanding of AMR transmission pathways within and between sectors and ultimately to mitigate AMR and to protect the health of humans and animals, and the environment. The tripartite will

provide logistical support for the AMRCG to conduct regular quarterly and ad hoc multi-sectoral coordination meetings.

The MPTF will be complementary to on-going One Health projects in Zimbabwe such as the Fleming Fund surveillance country grant, GAVI, FAO SAFE project, WHO AGISAR and existing government inputs. The Tripartite have closely worked with the government ministries that are part to the one health approach and activities under the proposal will build on existing and running programmes being implemented by Government institutions. The AMRCG will also analyse and discuss results from Technical Working Groups (TWGs) across all sectors and support development of policies and procedures for use at national and local levels. This will ensure that evidence-based policies and programmes for AMR mitigation measures are prioritised across the relevant sectors, based on information generated through AMR and AMU surveillance in all sectors. The multi sector and multi stakeholder approach of this proposal, forms the bedrock of broader engagement and collaboration.

The following partners will be actively involved in the project:

MoHCC: The Ministry is the competent authority on all matters related to human health. Through the NMRL, MoHCC will participate in the KAP study to understand key drivers of AMR within different stakeholder groups and develop specific key interventions relevant for each of their key stakeholders. MoHCC will, with support from the WHO, spearhead all the activities necessary for incorporating typhoid vaccination in the EPI program. The Ministry will be instrumental in the revision of National IPC Policy and Strategic plan, the National IPC guidelines and strengthening National IPC programme through implementation of a pilot surveillance system of HAI in selected health facilities. They will also be involved in meetings and sensitization programmes as informed by the KAP and behaviour change studies, with industry players, policy makers and high-level government staff to mainstream AMR and advocate for their inclusion in AMR activities.

DVS: The department is the competent authority on animal health. They will work in collaboration with FAO and OIE in promoting use of vaccines in livestock. DVS will be a key player in promoting biosecurity and hygiene in the livestock sector. They will together with FAO and OIE be involved in the Farmer Field Schools in the broiler value chain to promote adoption of good husbandry practices. DVS will also take part in COP discussions on behaviour change activities related to the supply chain of veterinary medicinal products, including checks at border.

The Ministry of the Environment, Climate Change, Tourism and Hospitality Industry, through the Environmental Management Authority (EMA) will be involved in the revision of the National IPC Policy so as to strengthen the policy. They will also take part in education and awareness through training of traditional leaders, farmers, local authorities etc. EMA will also contribute to issues of promoting biosecurity and hygiene in the animal health sector.

MCAZ: Will take leadership in the drug supply chain mapping and participate in stakeholder engagement workshops with the DVS, Zimbabwe Republic Police (ZRP), Port Health Authority (PHA), Zimbabwe Revenue Authority (ZiMRA), Ministry of Justice to prevent, detect and respond to SF antimicrobial products that drive AMR. They will pilot at a selected border post the inspections, use of field detection technologies to detect and confiscate SF antimicrobials products, prosecution of unlicensed operators to mitigate AMR. Support legal drafting workshops and consultative meetings to develop regulation of the manufacturing, import/export, of all active pharmaceutical ingredients (drug substances) of human and animal antimicrobials to restrict access to licensed manufacturers that produce registered products. Support a regional collaboration of SADC regulators to develop a framework for fighting illegal cross-

border trade in antimicrobial products, and conduct of a joint inspection, identify SF antimicrobials and prevent rapid development of AMR

This project seeks to address gaps that have been noted from other interventions and will also be informed by the KAP studies to be conducted. This will ensure that there is no duplication of activities and that there is distinction between the results achieved under this project and the other ongoing programmes. While there will be synergies with other AMR programmes, the Tripartite will only capture in their reports results of interventions under the project. This will avoid double counting of results between this project and other existing programmes.

### 2.6 Programme implementation in the light of COVID-19

The current COVID-19 pandemic has affected virtually every sphere of life across the world, including implementation of programmes and projects due to stoppage of in-person field work and limited human interaction, constrained supply of essential inputs, limited ability to monitor and evaluate programmes. The Covid 19 pandemic will invariably affect the implementation of this project through the limited ability for physical interaction among implementing partners, delays in procurement of essential materials and the extra costs of being covid 19 compliant as prescribed by the laws of the country. Some training especially targeting farmers and the general public may not be possible due to limitations in physical interaction.

The Tripartite will endeavour to conduct their business with the highest regard for the safety and health of its employees, partners, suppliers and beneficiaries, and accordingly will institute a number of measures to mitigate Covid 19 related risks as follows:

- i. Risk Assessment: At project inception, the Tripartite will contact a Covid 19 risk assessment based upon basic regulatory requirements, directives and additional measures recommended and based on current scientific information from reputable sources like WHO/NICD and develop a comprehensive management plan.
- ii. Avoidance of physical meeting: The Tripartite will promote the use of virtual meetings to minimise physical contact by making use of teleconference or other online platforms. Project staff where feasible will be encouraged to work from home.
- iii. Workplace entry screening and hygiene: Where staff have to physically come to work or where physical meetings are unavoidable entry point screening and strict hygiene will be exercised. Temperature screening will be conducted at all points of entry and hand sanitisers and tissues will be made available in public spaces at the workplace and meeting venues to reduce the risk of transmission. Staff and partners will also be encouraged to carry hand sanitizers with them, practice no handshake policy and to apply normal precautions when sneezing or coughing, such as to sneeze or cough into a tissue or sleeve, and not into one's hands, to wash hands regularly with soap and water, and to prepare food in a safe and hygienic manner.
- iv. Measures proving insufficient: Depending on severity of the pandemic in the country, if alternative measures are not adequate to sufficiently ensure the safety of staff and/or partners, the Tripartite will advise the funding partner and seek deferment of certain activities or temporary suspension of the project.

## 2.7 Communication, Advocacy and Lesson Learning

Communication, advocacy and lessons learnt on AMR and influence policy changes will be prioritised by the Tripartite and all implementing partners.

KAP studies targeting 2 sectors (dairy farming and health) will be undertaken to identify key drivers of AMR within different stakeholder groups. FAO has already conducted a KAP survey among broiler farmers. Evidence from the proposed studies combined with the results of the FAO broiler KAP study will be used to develop specific key interventions relevant for each stakeholder. The behaviour change COP will be used as a platform for sharing best practices and for the development of specific interventions. Evidence will drive the customization of interventions, which may include highlighting the: i) risks associated with risky AMU; ii) benefits of good practices; iii) alternative methods of disease control; and iv) Improvement of biosecurity and hygiene in human health service provision and animal production systems.

Building on the Fleming Fund Project, which targets holding meetings with policymakers such as ministers, permanent secretaries and directors of the ministries responsible for health, agriculture and the environment, any gaps identified will be further strengthened under this project. This will encourage the policy makers and other key stakeholders to participate in AMR activities and call them to action so that they can influence policies and legislative reviews to incorporate AMR and support efforts to ensure compliance by the general populace.

## 2.8 Governance and implementation arrangements (max 3 pages)

Administratively, the project will be led by the WHO. The lead will ensure timely inputs to the project and smooth implementation, highest technical quality and overall financial accountability of the project and compliance with regulations, rules, directives and procedures of the fund. The WHO will jointly manage the project with the other members of the Tripartite in collaboration with AMRCG and implementing partners. The WHO will also coordinate and administer the technical and financial aspects in human and some aspects of environmental health. FAO and OIE will jointly be responsible for all technical and financial aspects in animal health and production. They will also contribute in handling the environmental health aspects related to animal health and production. The governance structure will align with the structure provided for by the NAP (2017-2022). The AMRCG carries the mandate for the process of implementation of the NAP and provides a platform for strengthening collaboration and information sharing between the human health, animal health, food safety and environmental health sectors. Regular updates on the implementation of the AMR MPTF project will be provided at AMRCG quarterly and reviewed by the group to ensure that they remain aligned to national objectives and are complementary to other ongoing programs.

The organizational set up of the project will comprise of the Project Steering Committee (PSC) and Project Coordination Team (PCT). These committees will be set up in such a way that their roles and responsibilities contribute towards the operationalization of the project and are representative enough to ensure coordination of multisector activities under the auspices of the One Health approach. The specific roles and responsibilities are described in the following paragraphs.

#### Role and composition of Project Steering Committee (PSC)

The main role of the PSC will be largely to provide strategic direction and oversight to the project implementation. It will also ensure that all activities will be steered by the common vision in accordance with set guidelines and within the framework of the one health approach. The PSC will also ensure synergies are built between the AMR-MPTF project and other ongoing initiatives and projects. It will be responsible for mobilisation of additional resources to maximise the impact of the programme through engagement with other programmes, relevant government institutions, the AMRCG and the private sector and facilitating public private partnerships to scale up activities and ensure sustainability. The PSC will look at ways of strengthening the AMR secretariat to enhance coordination of AMR activities at national level. The PSC will be chaired by the Lead Tripartite partner (WHO) and include representatives of the other Tripartite partners, focal persons appointed by the three ministries that are signatories to the

NAP and key stakeholders within the framework of the one health approach and AMR coordination at national level. The Tripartite, under the leadership of WHO will be responsible for making all contractual agreements and will also assume overall financial accountability, expenditure planning, administration, project management and reporting duties for the programme. The PSC will meet at least once every month and on a need basis to deliberate on reports submitted by the PCT and review progress of activities being implemented.

#### Role and composition of Project Coordination Team (PCT)

The project will be coordinated through the AMR Secretariat as the PTC. The AMR Secretariat is composed of the following, AMR Coordinator (human health expert who will be the coordinator of the project), Programme Assistant (MOHCC), animal health expert (Ministry of Agriculture) and Environmental Expert (Ministry of Environment). These four will be placed in the MOHCC HQ as ancillary staff where offices have been identified. In recognition of their extra efforts and contribution to the project, these four will be rewarded with monthly honorariums based on agreed formula on level of effort. The PCT's major role is the management and coordination of the day-to-day implementation including oversight of the project and reporting. The PCT will take responsibility for coordinating implementation of all activities and monitoring progress, supported by the technical guidance from the PSC. The AMR Coordinator will assume overall coordination responsibilities and will be the main contact to interact with the Tripartite focal points and the programme leads across all sectors. The coordinator will be supported by staff seconded by the three sector ministries responsible for human, animal and environmental health and technical staff from the Tripartite. The Coordinator will have additional responsibilities of facilitating Tripartite support to multi sectoral coordination at national level, and the effective working of the AMRCG. The Fleming Fund is providing support for holding of quarterly AMRCG meeting and the AMR MPTF will build on this to enhance coordination and collaboration through the AMR Secretariat so that there is no duplication of activities. The PCT will meet at least once every fortnight and on a need basis to review progress, attend to challenges taking cognizance of lessons learnt in planning future activities and submit monthly updates to the chair of PSC.

### 2.9 Monitoring, reporting and evaluation

Sections 3.2 and 3.3 are standard text required for UN trust fund management. Country teams should note these arrangements.

Reporting on the AMR MPTF will be results-oriented, and evidence based. Each Tripartite organisation will provide the Convening/Lead Agent with the following narrative reports prepared in accordance with instructions and templates developed by the Tripartite Joint Secretariat on AMR:

- Annual narrative progress reports, to be provided no later than three (3) months (31 March) after the end of the calendar year, and must include the results matrix, updated risk log, and anticipated activities and results for the next 12-month funding period;
- Mid-term progress review report to be submitted halfway through the implementation of the Joint Programme<sup>1</sup> (depending on timing this may merge with the annual report);
- Final consolidated narrative report, after the completion of the joint Tripartite programme, to be provided no later than three (3) months after the operational closure of the activities of the Joint Tripartite programme.

<sup>&</sup>lt;sup>1</sup> This will be the basis for release of funding for the second year of implementation

As a minimum, the Tripartite Joint Secretariat on AMR will prepare and report on the activities funded through the AMR MPTF on a 6-month monitoring basis. Additional insights (such as policy papers, value for money analysis, case studies, infographics, blogs) might need to be provided, per request of the Tripartite joint Secretariat on AMR. The joint Tripartite programme will allocate resources for monitoring and evaluation in the budget.

Data for all indicators of the results framework will be shared with the Joint Tripartite Secretariat on AMR on a regular basis, in order to allow the Fund Secretariat to aggregate results at the global level and integrate findings into reporting on progress of the AMR MPTF.

You will be required to include information on complementary funding received from other sources for the activities supported by AMR MPTF, including in-kind contributions and/or South-South Cooperation initiatives, in the reporting done throughout the year.

Headquarters' level shall provide the Administrative Agent (UNDP MPTF Office) with the following statements and reports prepared in accordance with its accounting and reporting procedures, consolidate the financial reports, as follows (more information on the reporting will be provided at the later time):

- Annual financial reports as of 31 December each year with respect to the funds disbursed to it from the AMR MPTF, to be provided no later than four months after the end of the applicable reporting period; and
- A final financial report, after the completion of the activities financed by the AMR MPTF and including the final year of the activities, to be provided no later than 30 April of the year following the operational closing of the project activities.

In addition, regular updates on financial delivery might need to be provided, per request of the Fund Secretariat.

The joint Tripartite programme may be subjected to a Programme Review (methodology to be determined) or joint final independent evaluation (JFEI) by the United Nations Evaluation Group's (UNEG) Norms and Standards for Evaluation in the UN System, using the guidance on Joint Evaluation and relevant UNDG guidance on evaluations. Evaluation results will be disseminated amongst government, development partners, civil society, and other stakeholders. A joint management response will be produced upon completion of the evaluation process and made publicly available on the evaluation platforms or similar of PUNOs.

#### 2.10 Accountability, financial management, and public disclosure

Standard text – do not change.

The AMR MPTF will be using a pass-through fund management modality where UNDP Multi-Partner Trust Fund Office will act as the Administrative Agent (AA) under which the funds will be channelled for the MPTF through the AA. Each Tripartite organisation receiving funds through the pass-through has signed a standard Memorandum of Understanding with the AA.

Each Tripartite organisation shall assume full programmatic and financial accountability for the funds disbursed to it by the AA of the AMR MPTF (Multi-Partner Trust Fund Office). Such funds will be administered by each Tripartite Agency, in accordance with its own regulations, rules, directives and procedures. Each Tripartite agency shall establish a separate ledger account for the receipt and administration of the funds disbursed to it by the AA.

Indirect costs of the Tripartite Organizations recovered through programme support costs will be 7%. All other costs incurred by each tripartite agency in carrying out the activities for which it is responsible under the Fund will be recovered as direct costs.

Funding by the AMR MPTF will be provided on annual basis, upon successful performance of the programme.

Procedures on financial transfers, extensions, financial and operational closure, and related administrative issues are stipulated in the Operational Guidance of the AMR MPTF.

Each Tripartite organisation will take appropriate measures to publicize the AMR MPTF and give due credit to the other Tripartite agencies. All related publicity material, official notices, reports and publications, provided to the press or Fund beneficiaries, will acknowledge the role of the host Government, donors, tripartite partners, the Administrative Agent, and any other relevant entities. In particular, the AA will include and ensure due recognition of the role of each Participating Organization and partners in all external communications related to the AMR MPTF.

\*Legal Clause: Please indicate if a UNDAF or UNSDCF containing Legal Context information exists currently in the country, if yes, please provide a copy; if no, please include FAO Legal Provisions as appendices (Appendices 2.1 and 2.2) to the document before signing with the Government.

Yes 🔲

No 🗖

#### Annexes

AMR MPTF Log fra	mework	Name of country: Zimbabwe									
Impact: AMU asso	ciated behaviours and practices susta	ainably improved in critical sectors in Zim	babwe								
Objectives	Indicators	Sources of verification	Key assumptions and risks								
MPTF Outcome Objectives 1. Use of antimicrobials	Indicator 1: Total human consumption of antibiotics for systemic use. Baseline value: TBD Target value: TBD	<ol> <li>Baseline Report</li> <li>Survey of health facilities</li> </ol>	Covid 19 pandemic remains stable during the period of								

#### Annex 1 - Log Framework Template

optimized in critical sectors	Indicator 2: Percentage of acute health care facilities with an antimicrobial stewardship programme in place Baseline value: TBD Target value: TBD Indicator 3 Number of substandard and falsified medical antimicrobial products reported to the WHO Global Surveillance and monitoring System Baseline value: TBD Target value: TBD	3. Eva	luation reports	implementation of the project. There is political commitment for improving AMR regulatory framework
2. Improved understanding of AMR risks and response options by targeted groups	Indicator 1: Percentage of stakeholders (e.g. human and animal health workers, prescribers, farmers, food processing workers) who have knowledge of AMR and the implications for AMU and infection prevention Baseline value: TBD Target value: TBD			
	Indicator 2: Percentage of public who know use of antibiotics contributes to resistance Baseline value: TBD Target value: TBD			
MPTF Output Objectives	Indicator	Source of Verificatio n	Key Activities	Key Assumptions and Risks
Output A Systems for biosecurity and IPC strengthened in targeted areas	Indicator A.1: % decrease in the number of human infections with typhoid as a proxy to reduced AMU Baseline value: TBD from retrospective survey	A.1 Reports Peer review publicatio ns	Activities A: Conduct retrospective review of confirmed typhoid infections in selected health facilities Conduct typhoid post vaccination surveillance	Macro-economic environment remains stable during the period of implementation of the project.

Target value: 5% reduction from		in Harare Suburbs to	
baseline		demonstrate vaccine	
Indicator A.2:		effectiveness	
% decrease in the number of		Provide support for	
cattle infections with Theileriosis		production and use of	
in intervention herds as		theileriosis vaccine	
compared to control herds as a		Conduct randomised	
proxy to reduced AMU		controlled trials for Theileriosis vaccine	
Baseline value: TBD during			
baseline survey		Conduct Farmer Field Schools in the broiler	
Target value: 5% reduction from		value chain to promote	
baseline		adoption of good	
		husbandry practices (5	
Indicator A3		districts)	
National IPC programme		Measure the impact of	
supported in line with IPC core		farmer field school interventions on	
components		antimicrobial use	
Baseline value: TBD		Collect data on quality of	
Target value: TBD		implementation of IPC	
		programmes	
Indicator A.4:	A.2	Review and validate the	
Amount of Theileriosis vaccine produced	Activity Reports	National IPC Policy	
	Nepuits	Retrospective review of HAI in selected health	
Baseline value: 0		facilities to collect	
Target value: 100 000 doses	Peer	baseline data	
	reviewed publicatio		
Indicator A.5	ns	Pilot surveillance system	
% increase in number of farmers		of HAI in 2 selected	
trained in good husbandry and		health facilities (Target	
biosecurity measures in broiler		organisms: All causing HAI with special focus on	
value chain.		S. aureus and E. coli)	
Baseline value: 50 farmers trained			
Target value: 300 farmers trained			
Indicator A.6:			
% reduction in use of			
antimicrobials at farm level			
Baseline value: KAP survey report			
conducted among broiler farmers			
by FAO			
Target value: 5% reduction from baseline			
Indicator A.7:			
multatul A.7.			

Output B	endorsed IPC Policy, Strategy and Guidelines Baseline value: 0 Target value: 1 Indicator A.8: % reduction in proportion of HAI among hospital patients to methicillin-resistant Staphylococcus aureus (MRSA) and Escherichia coli resistant to 3rd-generation cephalosporin (e.g., ESBL- E. coli). Baseline value: TBD after retrospective review Target value: 3% reduction in overall HAI and specifically, S. aureus and E. coli	B.1	Activities B:	Sales/imports
Systems for optimized use strengthened in critical sectors	% of total sales/imports that are classified by the WHO/OIE as Highest Priority Critically Important Antimicrobial Agents for human or animal useBaseline value: TBDTarget value: TBDIndicator B2Total amount of pesticide (active substance) intended for the purpose of repelling, destroying, or controlling bacterial or fungal diseases in plantsBaseline value: TBDTarget value: TBDIndicator B 3% of the above total composed of each the following antimicrobial classes:• aminoglycosides• tetracyclines	Activity Reports Peer reviewed publicatio ns	Conduct supply chain mapping of distribution of human and veterinary medicines NB: Pesticide means any substance, or mixture of substances of chemical or biological ingredients intended for repelling, destroying or controlling any pest, or regulating any plant growth (see the International Code of Conduct on Pesticide Management) http://www.fao.org/aa riculture/crops/themati C- sitemap/theme/pests/c ode/en/. Data will be disaggregated by the following pesticide classes: Insecticides Fungicide	data will be based on AM coming through legal routes

	• triazolos		• Herbicide	
	triazoles			
	oxalinic acid		Plant growth regulator	
	Baseline value: TBD		Rodenticide <u>http://www.fao.org/faot</u>	
	Target value: TBD		erm/en/	
	Indicator B.4:	B.2	Data will be	
	Number of spot checks	Monitorin	disaggregated by the following antimicrobial	
	conducted	g and evaluation	classes:	
	Baseline value: 0	reports	aminoglycosides	
	Target value: 2		• tetracyclines	
	Indicator B.5:		• triazoles	
	Number of port officials able to		• oxalinic acid	
	systematically conduct spot checks		Conduct spot checks and	
	Baseline value: TBD		seizure of FS pharmaceuticals at	
	Target value: TBD		northern border of	
			Zimbabwe (Chirundu & other crossing points)	
	Indicator B.6:		Conduct AMU	
	Technical and economic impact		surveillance within the	
	of tailor-made interventions,		broiler value chain incorporating economic	
	aimed at reducing antimicrobial use in broiler production		data to make economic	
	Baseline value: 0		case for AMR	
	Target value: 1			
Output C	Indicator C.1:	C.1	Activities C:	High level of
Improved	Number and list of intervention	Activity	Conduct KAP studies	involvement by key stakeholders
capacity to design awareness	developed, or implemented to support improved capability for	Reports	among health professionals (human	in project
raising, behaviour	communication and behaviour		and animal health	activities (e,g attendance to
change and educational	change initiatives on AMR	Peer reviewed	sectors) and among dairy farmers to inform	meetings)
activities/	Baseline value: TBD	publicatio	development of targeted	
materials	Target value: TBD	ns	interventions	
			Conduct Behaviour Change COP meetings to	
	Indicator C 2		develop specific	
	Knowledge attitude and practices study on AMR conducted among		interventions	
	health care professionals in		Facilitate updating of the NAP for Zimbabwe	
	human and animal health sectors as well as in dairy value chain		Conduct behaviour	
	Baseline value: 1 (KAP survey by		change intervention	
	FAO on broiler value chain)		study among school children.	
	Target value: 3			
		l		I

|--|

## Annex 2 - Risk Matrix Template

	Risk Category:	Worst case consequence for the	Risk	Score		
Risk description	Contextual Programmatic Institutional	project	Impact	Likelihood	Mitigating action	Action owner
Covid 19 impacting negatively on implementation of activities	Contextual	The pandemic worsens and the country goes back to total lockdown	High	Medium	Practice recommended preventive measures Use of virtual means to support project activities.	AMR Coordinator
Instability of macro- economic environment	Contextual	Very high level of inflation and volatile exchange rates and commodity prices.	High	Medium	<ul> <li>Keep funds in stable foreign currency accounts</li> <li>Quarterly disbursements to minimise risk</li> <li>factor in taxes within the contingency during budgeting</li> </ul>	Tripartite (WHO, OIE, FAO)
Lack of political will	Institutional	Low level of involvement of key stakeholders in project activities (e,g attendance to meetings).	High	Low	Involve key stakeholders and policy makers in planning meetings Continuous engagement and feedback reporting on AMR issues to policy makers by the core group	Tripartite (WHO, OIE, FAO)

Project Governance	Programmatic	Conflicts within the One health group and the consortium. High number of ethical issues recorded within the One health group, tripartite and the project PCT (fraud, corruption, conflict of interest	High	Low	Adopt, train and implement existing conflict and ethical procedures Proper planning and budgeting, strict adherence to accounting procedures	AMR Coordinator
Timeline of activities and performance of the Tripartite	Programmatic	Failures to meet deadlines. Tripartite failing to meet set project targets	High	Low	Clear operational plans and vigilance on the monitoring and evaluation plan	Tripartite (WHO, FAO, OIE)
Political and civil unrest	Contextual	Work stoppages related to political and/or civil unrest	Medium	Low	Operate in a non-partisan manner Desist from making political statements	Tripartite (WHO, FAO, OIE)

#### Annex 3 - Outline of Budget

Categories	FAO	OIE	WHO	TOTAL
<ol> <li>Staff and other personnel costs <sup>2</sup>-Base salary and post adjustments for Tripartite staff.</li> </ol>	\$60 000	\$60 000	\$70 000	\$190 000
<ol> <li>Supplies, Commodities, Materials<sup>3</sup>- procurement of supplies for Theileriosis vaccine production, typhoid surveillance, PPE, training &amp; printing materials</li> </ol>	\$82 900	\$114 505	\$41 700	\$239 005
<ol> <li>Equipment, Vehicles and Furniture including Depreciation <sup>4</sup></li> </ol>				
<ol> <li>Contractual Services<sup>5</sup> -Consultancy fees</li> </ol>	\$25 000	\$24 750	\$55 400	\$105 150
<ol> <li>Travel <sup>6</sup>-DSA, per diems, transport/fuel, training venues and accommodation</li> </ol>	\$74 843	\$68 836	\$61 600	\$205 279

<sup>&</sup>lt;sup>2</sup> Staff and other personnel costs: Includes all related staff and temporary staff costs including base salary, post adjustment and all staff entitlements. This includes the costs of a full-time project coordinator, based either in one of the organisations or the National coordination committee.

<sup>&</sup>lt;sup>3</sup> Supplies, Commodities, Materials: Includes all direct and indirect costs (e.g. freight, transport, delivery, distribution) associated with procurement of supplies, commodities and materials. Office supplies should be reported as "General Operating".

<sup>&</sup>lt;sup>4</sup> Equipment, Vehicles and Furniture including Depreciation: The procurement of durable equipment is not eligible for the AMR MPTF and this budget line should therefore not be used.

<sup>&</sup>lt;sup>5</sup> Contractual Services: Services contracted by an organization which follow the normal procurement processes. It used for procurement of services requiring provision of intellectual or specialization services not foreseen under works and construction contracts such as, but not limited to, maintenance, licensing, studies, technical, training, advisory services. These are ruled by FAO policy MS 502 or MS 507 ruling LoA.

<sup>&</sup>lt;sup>6</sup> Travel: Includes staff and non-staff travel paid for by the organization directly related to a project.

<ol> <li>Transfers and Grants Counterparts<sup>7</sup>-Grants to a CSO for behaviour change activities and to the AMR Office to strengthen AMR Secretariat</li> </ol>	\$35 000	\$	\$84 000	\$119 000
<ol> <li>General Operating and Other Direct Costs <sup>8</sup>- Regional Technical Support and ME</li> </ol>	\$28 667	\$28 666	\$18 667	\$76 000
Total Direct Costs	\$306 410	\$296 758	\$331 367	\$934 534
<ol> <li>Indirect support costs (Max. 7% of overall budget)<sup>9</sup></li> </ol>	\$21 449	\$20 733	\$23 196	\$65 417
TOTAL	\$327 858	\$317 531	\$354 562	\$999 951
Please indicate which organisation will receive pre- financing facility <sup>10</sup>	FAO			

<sup>&</sup>lt;sup>7</sup> Transfers and Grants to Counterparts: Includes transfers to national counterparts and any other transfers given to an implementing partner (e.g. NGO) which is not similar to a commercial service contract as per above. Please reference FAO policy MS 502.

<sup>&</sup>lt;sup>8</sup> General Operating and Other Direct Costs: Includes all general operating costs for running an office. Examples include telecommunication, rents, finance charges and other costs which cannot be mapped to other expense categories. In addition, desk work from Headquarters (including from the project lead technical officer) should also be factored in these categories.

<sup>&</sup>lt;sup>9</sup> Indirect Support Costs: (No definition provided).

<sup>&</sup>lt;sup>10</sup> Max 25,000 USD fund can be used as pre-financing. More detailed information can be found in the guiding notes

## Annex 4 - National Work Plan Template

Name of Country

Start Date

Projected End Date

	Lead							YEAR	1						YEAR2											
	Tripartite Org	Implementing Partner	Month 1	2	3	4	5	6	7	8	9	10	11	12	Month 1	2	3	4	5	6	7	8	9	1 0	1 1	1 2
Output 1: Systems for	-																									
biosecurity and IPC																										i I
strengthened in																										i I
targeted areas																										
Activity 1: Typhoid																										
post vaccination																										1
surveillance																										
Activity 2: Theileriosis																										
vaccine Production																										
Activity 3: Theileriosis																										
vaccine trials																										
Activity 4: Conducting																										
FFS																										
Activity 5: Review of																										Í
National IPC policy and																										
development of																										
strategy and guidelines																										
Activity 6: HAI																										
Surveillance																										
Output 2: Systems for																										
optimized use																										
strengthened in critical																										
sectors																										
Activity 1: Medicines																										ł
supply chain mapping																										1
and develop																										1

interventions for FS												
Medicines supply chain												
Activity 2: Conducting												
spot checks at ports												
Activity 3: Conduct a												
prospective study												
within an existing												
broiler value chain on												
AMR and AMU												
surveillance to make												
economic case for												
AMR, with a possibility												
to widen up to other												
value chains												
Output 3												
Activity 1: KAP survey												
in dairy and human												
and animal health												
workers												
Activity 2: Behaviour												
Change studies and												
COP meetings												
Activity 3: Revision of												
the NAP for Zimbabwe												

For in-country planning purposes, it may be helpful to insert the budget for each activity into the

plan. This level of detail is not however required in the version submitted to the Secretariat. The

outputs should align with the Tripartite AMR results matrix and log framework. This workplan should

align with the plans of the respective organizations.

## **Appendices**

Appendices are attached as separate attachments to the email received containing this guidance.

- Appendix 1 Details of Budget template (excel sheet)
- Appendix 2.1 FAO legal document cover page
- Appendix 2.2 FAO legal document clause
- Appendix 3 Tripartite Results Matrix

## **Checklist before submission**

- 1. Country Proposal Submission Template
- 2. Log Framework Template (see Annex 1) (use of SMART output methodology up to the activity level)
- 3. Risk Matrix Template (see Annex 2)
- 4. Outline of Budget Templates (see Annex 3)
- 5. Work Plan Template (see Annex 4)
- 6. Details of Budget Template (see Appendix 1)
- 7. Legal clause (please see paragraph 3.3 Accountability, financial management, and public disclosure and Appendices 2.1 and 2.2)

#### Please also attach the supporting documents:

- 8. AMR National Action Plan
- 9. Any AMR progress reports or other relevant documentation (the recent 3 years)
- 10. Endorsement of AMR National Coordination Committee
- 11. Letter of support from key line ministries (at least Ministry of Health and Ministry of Agriculture)
- 12. Submission letter signed by heads of tripartite organisations