

The Antimicrobial Resistance (AMR) MULTI-PARTNER TRUST FUND

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

Ethiopia

Overview

Country	Ethiopia
Project title	AMR MPTF support for the implementation of the Ethiopian One Health AMR prevention and containment strategy
Implementing entities	The AMR MPTF project for Ethiopia will be coordinated by the Tripartite agencies i.e. FAO, WHO, and OIE and implemented with full commitment, ownership and leadership of the Ministry of Agriculture (MoA), the Ministry of Health (MoH), the Environment Forest and Climate Change Commission (EFCCC) and the authorities, agencies and centres under them, including other partners working on AMR.
Timeframe	24 months – July 2021 to June 2023
Lead Tripartite Focal Point	
Name	Tenaw Andualem Tadege
Agency	Food and Agriculture Organization of the United Nations (FAO)
Title	AMR Containment National Coordinator
E-mail	tenaw.tadege@fao.org
Telephone number (include country and city code)	+251 11647 8888 Ext 237 or +251 911 62 70 59
Address	Food and Agriculture Organization of the United Nations (FAO), Addis ABABA, Ethiopia P. O. Box 5536, CMC Road next to ILRI, Gurd Shola Bole Sub City, Kebele 12/13, Addis Ababa, Ethiopia
Counterpart Tripartite Focal Points	
Name	Teferi, Mengistab Woldearegay
Agency	World Health Organization (WHO)
Title	<i>National Professional Officer- AMR Focal Person</i>
E-mail	Teferim@who.int
Telephone number (include country and city code)	+251 911 97 44 87
Name	Jane Lwoyero
Agency	World Organization of Animal Health (OIE)
Title	OIE Sub-Regional Representation for Eastern Africa
E-mail	j.lwoyero@oie.int
Telephone number (include country and city code)	+254 721905632
Other Implementing Partners	<ul style="list-style-type: none"> ▪ Ministry of Agriculture (MoA), ▪ Ministry of Health (MoH),

	<ul style="list-style-type: none"> ▪ Environment Forest and Climate Change Commission (EFCCC) and ▪ The authorities, agencies and centres under the above ministries and include: Ethiopia Food and Drug Administration (EFDA), Veterinary Drugs and Feed Administering and Control Authority (VDFACA); Ethiopian Public Health Institute (EPHI), National Animal Health Diagnostic and Investigation Centre (NAHDIC), Armeur Hansen Research Institute (AHRI), and National Veterinary Institute (NVI); and Ethiopian Pharmaceutical Supply Agency (EPSA). <p>The National One Health (OH) Antimicrobial Resistance Prevention and Containment Advisory Committee includes government institutions, academia, development partners, civil society and private organizations. As it has been the practice in Ethiopia so far, that they will be part of the implementation of this AMR MPTF project.</p> <p>The project will be coordinated by the agencies forming the Tripartite i.e. FAO, WHO, and OIE. FAO and WHO will be represented by their country offices in Ethiopia. OIE through its sub-regional Representation for Eastern Africa Office in Nairobi, Kenya.</p>
Budget	
<i>Total amount (USD) based on budget summary in Annex</i>	1,000,000
<i>Total amount (USD) allocated to each Tripartite partner</i>	WHO: 300,168 OIE: 300,000 FAO: 399,832 (lead and coordinator)
	<p><i>Context and rationale and how this intervention will contribute to MPTF and NAP objectives:</i></p> <p>Antimicrobials are essential tools in the fight against infectious diseases in humans, animals, and plants. These roles have contributed to the gains in the combat against communicable and infectious diseases and enable use of other health advances and technologies. However, their critical role has led to the over- and improper use for both therapeutic and non- therapeutic purposes that have resulted in antimicrobial resistance (AMR) in microorganisms. Resistant pathogens are spreading between people and animals, and through food, water, waste, and soils, threatening food production and endangering human health and the health of wild, domesticated and farmed animals link. AMR has been a global and national threat to lives and livelihoods link, and has been considered health and economic risk now and in the future link link link link link. There are</p>

<p>Background</p>	<p>some critiques to this on antimicrobials use in agriculture and the environment: reducing unnecessary use and waste link. The Tripartite (WHO-FAO-OIE) has developed a list of instruments that set standards to guide both their implementation and inform discussions and direction for future on the use of antimicrobials for human, animal and plant sectors and their release into the environment link.</p> <p>In Ethiopia, the first national AMR prevention and containment baseline assessment conducted in 2009 link, showed the magnitude, trends and potential risk factors for AMR. In another study, AMR associated mortality for blood stream infections in a hospital setting in Addis Ababa, Ethiopia were reported link. A meta-analysis of the proportion of antimicrobial resistant human <i>Salmonella</i> isolates in Ethiopia reported link an increase in the proportion of drug resistant isolates since the 1970s. For example, among isolated <i>Salmonella</i> resistance to ampicillin, co-trimoxazole, chloramphenicol, and multi-drug resistant isolates were found to be 86.0%, 68.0%, 62.1%, and 79.5%, respectively. Similarly, <i>Shigella</i> species showed more than 80.0% resistance for tetracycline, ampicillin, amoxicillin and erythromycin link; for <i>E. coli</i> and <i>Neisseria gonorrhoea</i> resistance was more than 45% for the first line antimicrobials link link.</p> <p>In addition, the Ethiopian antimicrobial resistance surveillance system generated resistance reports on the following microorganisms: <i>Escherichia coli</i> and <i>Klebsiella pneumoniae</i> from urine specimens, <i>Staphylococcus aureus</i> from wound and carbapenem resistant <i>Acinetobacter</i>, <i>pseudomonas</i> and <i>Enterobacteriaceae</i> species from pus specimens. Amoxicillin-clavulanate, cotrimoxazole, ciprofloxacin and ceftriaxone resistance for <i>E. coli</i> and <i>K. pneumonia</i> was reported to be high i.e., more than 60 % for all link.</p> <p>On the other hand, review of studies of animal food source have shown that similar but high prevalence of resistance of <i>E. coli</i>, <i>S. aureus</i> and <i>Salmonella</i> species exist to antimicrobials. For example, a review of <i>S. aureus</i> isolates from dairy farms in Ethiopia had reported 92.0% resistance to penicillins followed by 70.9% cefoxitin and 59.9% against Tetracycline.¹</p> <p><i>What has the national response been to date, what are the priority sectors and value chain in the National Action Plan for AMR?</i></p>
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¹ Biniam Tadesse, Matios Lakew, Tafesse Koran, Tenaw Andualem (2018). *The Magnitude of Antimicrobial Resistance in Animal Health Sector of Ethiopia (National Animal Health and Diagnostic and Investigation /Research Center (NAHDIC), Unpublished Report).*

Cognizant of the magnitude of AMR in humans, animals and food sources, the One Health (OH) approach has adopted to prevent and contain AMR for more than a decade. Some of the actions included a baseline assessment in 2009 [link](#); establishment of a OH national AMR prevention and containment advisory committee; development of a OH national AMR strategy in 2011, which was later updated in 2015 [link](#) and is currently in the revision process; and a OH memorandum of understanding to protect Ethiopians from infectious disease threats and improve global health security [link](#).

Following identification and prioritization of gaps during the baseline assessments [link](#), Ethiopia has undertaken interventions in line with the national OH AMR strategic objectives. Developed AMR surveillance plans² [link](#) and generated reports [link](#); engaged stakeholders and mass media for advocacy and awareness raising [link](#); implemented infection prevention actions [link](#); developed guidelines and provided training on antimicrobials stewardship (AMS) [link](#) [link](#) [link](#). Ethiopia has also been a participant in the antimicrobial use (AMU) data collection and reporting to the global database both humans and animals [link](#). Some of the experiences and lessons have been published [link](#) [link](#) [link](#) [link](#) and shared to the global community, some of them included here [link](#), [link](#), [link](#) [link](#).

*What have the main achievements been to date for AMR control in the country?
What are the main gaps?*

In Ethiopia, the main achievements of AMR control include the baseline assessments in both human and animal health, which were the bases for identification of gaps and the formulation of the OH AMR strategy, multifaceted interventions across the five strategic objectives of the OH AMR strategy. Some of the achievements included capacity building of the mass media in order to raise their awareness and help empowerment of the society through their media outlets [link](#). Institutionalization of AMR surveillance plans¹ and reports [link](#) [link](#) and antimicrobials stewardship opportunities and guidelines [link](#) [link](#) development of rational medicines use directives [link](#) and establishment of drug and therapeutic and of antimicrobials stewardship committees, and coalition building as catalysts for action against AMR [link](#) and audit-feedback systems in selected health facilities [link](#).

In 2020, the national AMR secretariat for the prevention and containment of AMR undertook rapid assessment to understand the implementation levels of the one health AMR strategy. Accordingly, some institutions have undertaken

² *Integrated National Antimicrobial Resistance and Residue Surveillance Plan in Animal Health, Plant, Food Safety and Environment Sectors of Ethiopia, 2019 to 2023*

one or more of the following activities the last one year with varying levels of implementation among them: assignment of AMR focal person; included AMR prevention and containment interventions in their strategic and annual plans; have done some awareness raising and education; established a multi-sectorial or multi-disciplinary coordination platform. However, they have also mentioned limited resource access and poor laboratory infrastructure as challenges.³

Although there are no in-depth evaluations, the risks of AMR remain considerably high in the human and animal health and food sectors [link](#). Major gaps include functioning less than full capacity multi-sectoral approach, insufficient coverage and low-quality active AMR and antimicrobials use (AMU) data collection and surveillance, lack of sustainable financing, sub-optimal AMU practices in humans and animals [link link](#) challenges of securing adequate laboratory supplies for AMR surveillance [link](#). The current AMR MPTF project aims to mitigate some of the financial and technical constraints, to strengthen government's efforts for the sustainable implementation of AMR prevention and containment in Ethiopia.

Relation of the AMR programme to national planning and policy instruments and strategy (e.g. health sector strategy, One Health strategic framework):

The Ethiopian government has ambitious development programs not only to sustain its hard gained achievements of the millennium development goals (MDGs) but also to reach at the 2030 sustainable development goals (SDGs) [link](#). The Ethiopian government is aware that AMR threatens the achievements of SDGs and has considers as a health and food security issue, and an inevitable risk to the economy. However, investments on AMR containment have positive returns. Hence, the government is committed to strengthen its national OH AMR secretariat to lead the OH AMR prevention and containment efforts [link](#) in the country. In addition, the Ethiopian mass media, although their airtime and space are expensive, has conducted a tremendous advocacy and awareness raising programs on AMR following their capacity development over the years with no additional expenses to the government [link](#).

The AMR MPTF project is aligned with the Ethiopia national one health AMR prevention and containment strategy [link](#) and with the health sector transformation and livestock master plans and environment policy [link link](#) and the national action plan for health security [link link](#). Ethiopia has considered AMR not only a risk to the human, animal, and food sectors but also as

³ Ministry of Health (MOH). *Pharmacy Services, Pharmaceutical Supply Chain Performance and Medical Equipment Management in Public Hospitals: A Baseline Survey*, MOH Addis Ababa, March 1, 2020. Unpublished.

challenge for its economic development. As a result, some of the AMR prevention and containment strategic objectives have been included in annual plans of sectoral ministries. However, there is still a need to strengthen the multi-sectoral coordination and sustainability.

Summary of ongoing or recently completed AMR efforts and the principal local, national and international actors involved in the issue

For years, the Ethiopian government has supported and sustained the one health prevention and containment of AMR secretariat. Recently, the country developed/revitalized a governance structure that includes inter-ministerial committee, national OH advisory committee and six technical working groups on AMR prevention and containment. There are also attempts to extend these governance structures to sub-national levels for better implementation of the strategy.

As described above the Ethiopian strategy for the prevention and containment of AMR was developed and updated in 2011 and 2015 [link](#). To date, there are efforts in updating of this strategy to also include plan of action, costing with monitoring and evaluation (M & E) framework and indicators. All key stakeholders have participated in these processes.

Ethiopia has developed antimicrobials stewardship (AMS) guidelines [link](#), conducted advocacy workshop and provide integrated training on AMS, AMU and antimicrobials consumption (AMC) surveillance that being implemented in hospitals and in the process of scale up to other public and private health institutions. Moreover, AMR surveillance for human health and an integrated national AMR and residue surveillance plans developed in animal health, plant, food safety and environment sectors⁴ and they are in the process of implementation.

Mastitis is one of the frequent diseases in dairy cows that affects production, productivity and affecting milk quality if there are antimicrobials residues. In this regard, there is work in progress to pilot interventions in the private sector and generate evidence not only in the prevention of mastitis and residues in milk but also to reduce unnecessary use of antimicrobials and thereby AMR.

How have the Tripartite organisations supported this work, and what work is ongoing?

⁴ *Integrated National Antimicrobial Resistance and Residue Surveillance Plan in Animal Health, Plant, Food Safety and Environment Sectors of Ethiopia, 2019 to 2023*

The FAO and WHO in country offices and the OIE Sub-Regional Representation for Eastern Africa, Nairobi, Kenya, will coordinate the AMR MPTF project. The Tripartite has been part of the development, updating, technically and financially supporting the implementation of the OH AMR strategy. FAO and WHO are members of the national multi-institution and multi-disciplinary OH AMR prevention and containment advisory committee and technical working groups (TWGs). Moreover, they have the practice of working together during AMR awareness raising and other interventions at field level. This AMR MPTF project will make these efforts more cohesive and build on the existing strong OH partnerships. The project will be implemented with the full commitment, ownership and leadership of the Ministry of Agriculture (MoA), the Ministry of Health (MoH) and Environment Forest and Climate Change Commission (EFCCC), and the authorities, agencies and centres associated with them at national and sub-national levels.

Is AMR incorporated in the strategic frameworks of each organisation?

AMR prevention and containment has been incorporated in the annual plans of the government ministries and agencies under them. For example, the MOH has not only hosted the AMR secretariat with assigned full time staff coordinating and working on AMR but also allocated budget. Prior to this Ethiopian Food, Medicines, and Healthcare Administration and Control Authority (EFMHACA) has hosted the secretariat with assigned staff for nearly ten years, and the same is true of other ministries. However, these need to be strengthened more and needs more resources and some efforts.

Is AMR included in the UN Sustainable Development Cooperation Framework⁵? If not, is there scope to facilitate this through this programme?

Like the efforts at the global level, the importance of addressing AMR, including its impact on the socioeconomic development at the national, regional and global level has been reflected in the discussions of the UN Sustainable Development Cooperation Framework (UNSDCF). The UNSDCF strives to achieve the SDG indicators and targets. Six SDGs are of relevance for AMR i.e., SDG 2, 3, 6, 9, 12, and 17. Several of the SDG indicators cover indirectly many aspects of AMR e.g. ~40% of indicators in 12 SDGs are relevant for AMR. Also, key AMR topics that are captured include universal health coverage, disease incidence, and water/sanitation.

⁵ UN Sustainable Development Cooperation Framework <https://unsdg.un.org/resources/united-nations-sustainable-development-cooperation-framework-guidance>

	<p>Although there are no AMR specific indicators, there are health related AMR containment, sensitive activities and indicators that can contribute to the overall AMR prevention and containment efforts.</p> <p><i>Brief summary of other actors present in AMR related initiatives in the country (e.g. donor supported action)?</i></p> <p>As described above the primary and catalyst key actors and institutions in the prevention and containment of AMR are members of the OH advisory committee. These lead government institutions included Ministry of Agriculture (MoA), the Ministry of Health (MoH) and Environment Forest and Climate Change Commission (EFCCC), and regulatory authorities, agencies and centres associated with them. Others include teaching and research institutions, civil society organizations such as health professional associations, UN agencies, and development partners such as USAID, US CDC and their projects.</p>
<p>Status of National Action Plan for AMR</p>	<p><i>When was the National Action Plan for AMR developed?</i></p> <p>The first 2011 AMR prevention and containment national action plan/strategy was developed to address the gaps identified through the baseline (situation) assessment syntheses report of 2009 link and then aligned and updated with the Global Action Plan link in 2015 link for the second time and for four years. Currently, in the process of developing the National AMR Prevention and Containment Strategic Plan 2021-2025 with plan of actions with M & E framework, and costing for the next five years.</p> <p><i>When was the last progress report?</i></p> <p>In 2020, Ethiopia has responded to the fourth round of the Tripartite AMR Country Self-assessment Survey (TrACSS) and is part of the global report link. This has monitored progress in the implementation of the national action plan on AMR. Although, there is no overall and wider scale evaluation of the implementation of the AMR prevention and containment strategy, the AMR secretariat quickly and briefly assessed the implementation of the strategy in some institutions⁶.</p> <p><i>Report of the Secretary-General. Follow-up to the political declaration of the high-level meeting of the General Assembly on antimicrobial resistance https://undocs.org/en/A/73/869</i></p> <p><i>Are there plans to refresh the NAP (if so when and over what time frame)?</i></p> <p>The national OH AMR prevention and containment strategy is currently being updated for the third time. The timeframe will cover the next five years, 2021 to 2025. The updated strategy will include a plan of action with M & E framework and costing.</p>

^{6 6} Ministry of Health (MOH). Pharmacy Services, Pharmaceutical Supply Chain Performance and Medical Equipment Management in Public Hospitals: A Baseline Survey, MOH Addis Ababa, March 1, 2020. Unpublished.

How often does the AMR coordination committee meet?

The TOR of the OH AMR prevention and containment advisory committee is quarterly. However, it can meet more frequently depending on the need and urgency of the agenda to be discussed.

Which sectors are actively engaged in the committee?

Sectors actively engaged in the Ethiopian OH AMR prevention and containment advisory committee include:

- Federal ministries and commission: MOH, MOA, Ministry of Science and Higher Education (MOSHE), and EFCCC;
- Regulatory authorities: Ethiopia Food and Drug Authority (EFDA), Veterinary Drugs and Feed Administering and Control Authority (VDFACA);
- Health and research institutes: Ethiopian Public Health Institute (EPHI), National Animal Health Diagnostic and Investigation Centre (NAHDIC), Armeur Hansen Research Institute (AHRI), and National Veterinary Institute (NVI);
- Ethiopian Pharmaceutical Supply Agency (EPSA);
- Associations: Ethiopia Medical Association (EMA), Ethiopia Society of Internal Medicine (ESIM), Ethiopia Pharmaceutical Association (EPA), Ethiopia Veterinary Association (EVA), Ethiopia Medical Laboratory Association (EMLA), Ethiopia Public Health Association (EPHA), Ethiopia Nurses Association (ENA), Ethiopia Private Health Institutions Association (PHFA);
- UN agencies: WHO and FAO; and
- Development partners and their projects, USAID, US CDC.

To which entity does the AMR national coordination committee report?

The national OH multi-institution and multi-disciplinary AMR Prevention and Containment advisory committee secretariat is hosted by MOH and co-chaired by MOH, MOA, and EFCCC. The day-to-day activities of the committee are coordinated by the secretariat. In general, the secretariat regularly reports to and supervised by MOH. However, the advices, decisions and recommendation of the committee are circulated among the members and their institutions. Moreover, the individual members of the advisory committee have the obligation of sharing the records and follow up the advices and decisions of the committee in their respective institutions/organizations for their implementation. The simplified structure of the committee is depicted below.

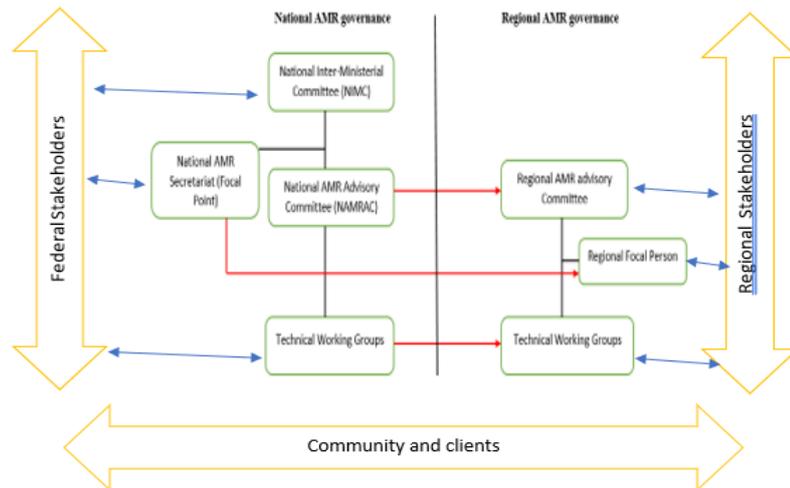


Figure 1. AMR governance framework ((Key: red arrows indicate technical assistance; the blue arrow on the direction indicates reporting and feedback lines)

Is the private sector involved?

Yes, as shown in the list of the members of the advisory committee, the private for-profit and non-profit sectors are part of the engagement. In addition, the strategy, awareness raising, education, surveillance, guidelines, job aids, and stewardship efforts are implemented without any distinction to the ownership of the human and animal health facilities in Ethiopia, this requires further strengthening.

Is civil society involved?

Yes, the civil society, which included professional associations in human and animal health sector are involved from the very initiation and beginning of the AMR prevention and containment advisory committee and the implementation of the strategy in Ethiopia. Nevertheless, there is a need for full utilization of their capacity.

Is academia involved?

Yes, the teaching and research institutions (academia) are not only members of the national OH adversity committee but also involved during the AMR baseline assessments, development, and revision of the AMR strategy but also in the piloting, implementation of targeted interventions. The academia serves as resource persons too.

How do the Tripartite organisations support the NAP committee and national coordination?

Members of the Tripartite (WHO and FAO) have been part of the OH advisory committee and the Technical Working Groups (TWGs) to technically support the development and implementation of the one health AMR prevention and containment strategic plan, serve as members of the TWGs in the

	implementations of the specific interventions. OIE like in other countries has been supporting MOA in capacity building.
Project Summary	
Impact	<ol style="list-style-type: none"> 1. Contribute to increased Ethiopia's commitment and efforts on AMR prevention and containment based on evidence-based data 2. Antimicrobials use (AMU) behaviours and practices sustainably improved in critical sectors
Outcome(s)	<ol style="list-style-type: none"> 1.1. Evidence based and representative data on AMU and AMR improved for policymakers and sectors implementing AMU practices 1.2. Risks of and response to AMR improved in targets 2.1. Use of antimicrobials optimized in critical sectors
Outcome and output linkages	<p><i>Outcome 1.1.</i> Evidence based and representative data on AMU and AMR improved for policy-makers and sectors implementing AMU practices</p> <p>OP2: Systems for generating, analysing and interpreting data on AMR and AM consumption/use strengthened</p> <p><i>Outcome 1.2.</i> Risks of and response to benefits of AMR reflected in national budgets and multi-lateral partner sector-wide investments</p> <p>OP1: Improved Ethiopia's capacity in designing and implementing AMR related policy frameworks, investment plans, and program</p> <p><i>Outcome 2.1.</i> Use of antimicrobials optimized in critical sectors</p> <p>OP 3: Strengthened systems for infection prevention, hygiene, and biosecurity</p> <p>OP4: Systems for optimized use of antimicrobials strengthened in critical sectors</p>
Outputs and Key activities	<p><i>Outcome 1.2. Risks of and response to benefits of AMR reflected in national budgets. and multi-lateral partner sector-wide investments</i></p> <p>Output 1. Improved country capacity in designing and implementing AMR related policy frameworks, investment plans, and program</p> <p><u>Activities:</u></p> <ol style="list-style-type: none"> 1.1 Provide Support to multi-sectoral coordination committee: inter-ministerial committee, national and sub-national AMR advisory committees, and technical working groups: advocacy, regular review meetings 1.2 Support AMR coordination committee to develop a OH communication, and stakeholder's analysis and engagement strategy and develop behavioural change communication and advocacy events to key stakeholders 1.3. Cascade and scale up for implementation of multi-sectoral coordination AMR strategy on AMU and AMR surveillances, and good practices from federal to sub-national, and institution levels, and promote public-private partnerships 1.4. Monitor development and implementation of the OH Ethiopian AMR strategy/POA and evaluation of the AMR MPTF plan (<i>support the refining, co-signing, advocacy for inclusion in the strategic and development plans, and strategic interventions with the support of the tripartite members</i>) <p><i>Outcome 1.1. Evidence based and representative data on AMU and AMR improved for policy-makers and sectors implementing AMU practices</i></p>

Output 2. Systems for generating, analysing and interpreting data on AMR and AM consumption/use strengthened

Activities:

- 2.1 Develop/adapt methods and tools to produce report on antimicrobials consumption and use for human/animal health at national, subnational, health care facilities, and medicines retail outlets
- 2.2. Develop/adapt/adopt AMR data capture tools and database
- 2.3. Strengthen/establish sustainable and scale up human and animal National AMR Surveillance system
- 2.4. Provide impetus for antimicrobial susceptibility testing (AST) in public and animal health laboratories through procurement of consumables: antimicrobials discs, funding to procure media, and reagents to 20 hospitals and 15 animal health, food safety and environment laboratories to detect, identify and AST of priority pathogens (*raise awareness on the use of AST as a cost saving option than otherwise to sustain by the health system of the country and also include them in the annual national procurement list of the country and eligible institutions) after the end of the MPTF project*

Outcome 2.1. Use of antimicrobials optimized in critical sectors

Output 3: Strengthened systems for infection prevention, hygiene, biosecurity in Ethiopia

Activities:

- 3.1. Strengthen health care associated infections (HAI) Prevention and control in 20 hospitals to prevent HAI and AMR and scale up the evidences and good practices and linkage with AMR surveillance report (integrated with AMS, budget shown under output 4)
- 3.2. Conduct surveys on knowledge, attitudes and practices about infection prevention, hygiene and biosecurity in animals
- 3.3. Develop/adapt and implementation of standards on food safety, on biosecurity, infection prevention, and hygiene guidelines, including AMR / AMU and use of vaccines in animal health.

Outcome 2.1. Use of antimicrobials optimized in critical sectors

Output 4. Systems for Optimized use strengthened in critical sectors

Activities:

- 4.1. Capacitate medicine regulatory bodies on market surveillance and control, regulatory inspection and sensitization on the impacts of substandard and falsified antimicrobials (both humans and animals and include post marketing surveillance (PMS)).
- 4.2. Assess AMU practices (with due consideration to high priority critically important antimicrobials) and build capacity of animal health care providers on antimicrobials stewardship (prescribing, dispensing, adherence to treatment)
- 4.3. Develop/implement user-friendly species specific treatment guidelines for animals based on international recommendations, their importance and risk of AMR
- 4.4. Establish/strengthen institutionalized and integrated antimicrobial stewardship and HAI prevention and control in 20 hospitals and scale up the evidence and good practices and linkage with AMR surveillance and IPC/HAIs

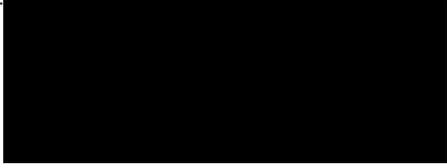
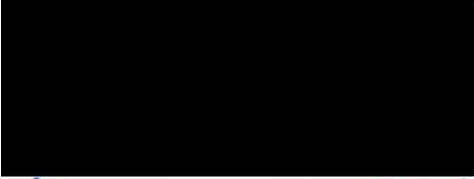
	<p>report (including monitoring adherence to STG, NEML, and evidence-based protocols)</p> <p>4.5. Develop/adapt standards, and best practices on safe food production and quality with consideration of antimicrobial withdrawal times and maximum residue limits in reference to Codex standards</p>
<p>Link to National Action plan</p>	<p>The Ethiopian AMR prevention and containment strategy/national action plan has five strategic objectives as outlined and linked below with the AMR MPTF output areas. Our project emphasizes the engagement of the Ethiopian government in AM related policy, programs and plans based on data and information generated from the system on AMC, AMU and AMR surveillance. The AMR MPTF project envisages infection prevention, control, and biosecurity to reduce prevalence and incidence of diseases there by reducing AMU and AMR. Since not all diseases can be prevented in their totality, we emphases optimized use of and improved behaviors practices in the use of antimicrobials. These will contribute to slow down AMR and extend useful life of antimicrobials. Below are linkages between AMR MPTF and Ethiopian AMR prevention and containment strategic objectives.</p> <p>The Ethiopian AMR MPTF project is aligned with the prioritized interventions of the national OH AMR prevention and containment strategy link, for example, output 1 of the AMR MPTF project is aligned with Strategic objective One: Improve Awareness and understanding of Antimicrobial Resistance through effective behavioral change communication, Education and Training and strategic objective five: Strengthen and establish alliances, governance, and resource mobilizations at all levels. Output 2 of AMR MPTF aligned with with Strategic objective Two: Strengthen the knowledge and evidence on antimicrobial use and resistance through one-health surveillance and research. Output 3 of AMR MPTF with Strategic objective Three: Enhance infection prevention and control, through effective environmental health, infection prevention and biosecurity measures in animal and human health; and output 4 of AMR MPTF with Strategic objective Four: Optimize the use of antimicrobials in human and animal health; and output 1 of AMR MPTF.</p>
<p>Link to country's development priorities</p>	<p>The United National General Assembly (UN GA) 2016 link passed a political declaration and urged countries to make AMR one of their priorities. FAO, WHO, and OIE have passed resolutions and developed their respective strategies to support countries and formed a joint FAO-WHO-OIE Tripartite collaborate against AMR.</p> <p>It has been clear that without effective AMR prevention and containment, the Sustainable Development Goals (SDGs) for 2030 such as ending poverty, ending hunger, ensuring healthy lives, reducing inequality, and revitalizing global development partnerships are less likely to be achieved link.</p>

Initiatives like Universal Health Coverage (UHC) [link](#) and health system strengthening (HSS) opportunities are enabling environments for the OH AMR prevention and containment. These initiatives expand coverage to access preventative care, vaccinations, and hygiene measures that reduce diseases prevalence and the need for antimicrobials; and improved quality health services and financing; improving access to effective antimicrobials and improved surveillance system, which can contribute to the timely treatment of infectious and communicable diseases and thus reduce morbidity and mortality both in humans and animals.

Ethiopia embarks on several initiatives such as achieving sustainable livelihoods, food security and nutrition, improving access without excess of medicines and essential health services, economic growth, and overall achievement of Sustainable Development Goals (SDGs).

The Ethiopian OH AMR prevention and containment strategy was developed in line with the national development priorities and development goals of the country. Similarly, the AMR MPTF project is not only aligned with the national OH AMR strategy but also with the health sector transformation and livestock master plans [link link](#) and the national action plan for health security [link link](#). Ethiopia has considered AMR not only a human, animal, and plant health threat and food safety risk but also as a challenge for its economic development efforts.

We the responsible officers of the Tripartite organisations take responsibility for the efficient delivery of this project. 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

Names of the tripartite	Signatures and dates
<p>Ms Fatouma Djama Seid, FAO Country Representative Food and Agriculture Organization of the United Nations Fixed line phone: 251 647 8888 ext 123 Mobile Phone: 251 911 - 50 95 32 fatouma.seid@fao.org</p>	 10/5/2021
<p>Dr Boureima Hama Sambo, WHO Representative to Ethiopia UNECA Compound, Minilik Avenue II, Kazanchis, Addis Ababa, Ethiopia Email: sambos@who.int Fixed line phone: (251)11 553 47 77 ext. 3460, mobile Phone: (251) 944 334247</p>	 04-05-2021
<p>Dr Samuel Wakhusama, Representative OIE Sub-Regional Representative for Eastern Africa; s.wakhusama@oie.int Fixed line phone: +254 20 271 3461 Mobile Phone: +254 725 254 600</p>	03/05/2021 

Joint Programme Description

1. Baseline and situation analysis

1.1 Problem statement

Explain the problem to be addressed.

Globally, AMR poses a threat to human and animal health as well as the environment. The Global Action Plan to combat AMR underlines the urgency and the need to address the crisis at scale. In Ethiopia, the government has joined the global community in its efforts to curb the threat of AMR. Ethiopia has embraced the ‘One Health’ approach to deliver on a concerted, collaborative and integrated effort to effectively combat AMR in the human, animal, plant and environment sectors.

Despite these efforts, different systematic reviews and meta-analyses have reported an alarming rise in AMR in Ethiopia. For instance, a systematic review of Salmonella (Tadesse G.2014) and Shigella (Hussen *et al.*, 2019) reported high resistance for the commonly used antibiotics. Similarly, high *E. coli* resistance was seen not only for the commonly used antibiotics (access group) but also for third generation cephalosporins and fluoroquinolones (Tuem *et al.*, 2018; Sisay *et al.*, 2018).

The emergence and prevalence of resistant strains in agricultural food products can also seriously compromise public health. A systematic review of 15 published studies from 2013 to 2018 that reported 556 *E. coli* isolates from different food sources in Ethiopia showed a pooled ampicillin, erythromycin and streptomycin resistance of 78.71%, 64.12% and 37.62%, respectively⁷. Similarly, a systematic review of 10 published studies from 2012 to 2017 on dairy farms on 463 *S. aureus* isolates had also reported 92.02% resistant for Penicillin followed by 70.86% cefoxitin and 59.93% for Tetracycline.⁸

Contrary to WHO recommendations, antimicrobial use is widespread. The national average percentage of prescriptions containing antibiotics was 57.6% (MOH, M and E baseline survey, 2020). Antimicrobial prescriptions are mainly driven by empiric decision (Gutema, *et al.*, 2018; Gebretekele, et al 2020). Antimicrobial prophylaxis was used in the majority of surgical procedures, including clean surgical procedures and in wrong doses, duration and indication than is recommended (Alemkere G. 2018). The irrational and over use of antimicrobials driven by poor availability and compliance to standard treatment guidelines and functionality of Drug and Therapeutic Committee (DTC). (MOH, M and E baseline survey, 2020). Furthermore, clients’ adherence to the prescribed antimicrobials, and self-medication practice identified as major problems (Hailu et al., 2014; Ayalew *et al.*, 2017; Sisay, *et al.*, 2018).

Outline how Tripartite action will support national efforts to address such challenges and accelerate progress towards sustainable implementation of the National Action Plan for AMR. This section should emphasize the most critical needs / gaps that the joint Tripartite programme will address.

⁷ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6086211/>

⁸ <https://academicjournals.org/journal/JVMAH/article-full-text-pdf/5B94C3857160>

Although Ethiopia has started AMR prevention and containment implementation early, and has done a lot, several gaps persist which are summarized below:

- Inadequate multi-sectoral governance, collaboration and coordination of AMR Prevention and Containment at federal and regional states and city administrations and institution levels;
- Inadequate cascaded and sustainable implementation of the national AMR strategy;
- Inadequate and poorly Institutionalized Antimicrobial Stewardship (AMS) program in human health sector; lack of integration of AMS, AMR Surveillance system and HAI infection prevention and control programs;
- Poor diagnosis, prescribing, dispensing, administration, and patient adherence, as well as self-medication, non-therapeutic use of antimicrobials;
- Inadequate capacity of microbiology /diagnostic laboratories – human resources, infrastructure, quality assured lab supplies;
- Inadequate implementation of health facilities acquired infections and community infections prevention and control program;
- Inadequate awareness of AMR by community/clients and health care professionals;
- Inadequate availability and use of evidence on AMR, AMC, and AMU for decision making;
- Absence and poor monitoring of compliance with evidence based national essential medicine list and standard treatment guidelines;
- Inadequate regulation of antimicrobials in human and animal health sector; and
- Unavailability of /poor reporting, monitoring and evaluation of implementation and performance of the national strategy of AMR Prevention and containment.

Draw on relevant analysis and information from national and international sources

Ethiopia is fully committed to the collaborative, multi-sectoral, and transdisciplinary approach, which is supported by the National One Health platform that involves the active participation of multiple stakeholders, and indeed several policy documents recommend multi-stakeholder and multi-disciplinary approaches to better address complex public health issues. The government endorsed the Public Health Policy of Ethiopia (1993), the Animal Diseases Prevention and Control Proclamation (No. 267/2002) states, “to prevent and control animal diseases, and National One Health Strategic Plan (2018-2022), all support the adoption to the one health approach.

The strategic technical and financial support of AMR MPTF Tripartite (WHO, OIE and FAO) will enable the country to address some of the above-mentioned gaps/challenges and accelerate progress towards sustainable implementation of the national action plan for AMR of prevention and containment at all levels.

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

Outcome(s)	Output (s)	Activities	Indicator	Baseline	Target
1.2. Risks of and response to AMR improved in targets	OP1. Improved Ethiopia's capacity in designing and implementing AMR related policy frameworks, investment plans, and program	1.1 Provide support to multi-sectoral coordination committee: inter-ministerial committee, AMR advisory committees, including establishment of functional technical working groups: advocacy, regular review meetings to federal, 5 regional states and one city administration	<i>Number of Functional AMR Advisory committees</i>	2	7
			<i>Number of Functional TWG at federal level</i>	0	6
		1.2 Support AMR coordination committee to develop stakeholder's engagement strategy, and behaviour change communication and advocacy products and events to key stakeholders	<i>Availability of stakeholders engagement strategy and behaviour change programmes</i>	0	1
		1.3. Cascade and scale up for implementation of multi-sectoral coordination strategy on AMU and AMR surveillances and good practices from federal to sub-national, and institution levels, and promote public-private partnerships	<i>Number federal, regional /city administration, institutions incorporated AMR prevention and containment in their annual plan of action</i>	6	20

Outcome(s)	Output (s)	Activities	Indicator	Baseline	Target
		1.4. Monitor implementation of the OH Ethiopian AMR prevention and containment strategic plan/POA and evaluation of the AMR MPTF plan (support the refining, co-signing, advocacy for inclusion in the strategic and development plans, and strategic interventions with the support of the tripartite members)	<i>Monitoring Report Workshop proceeding</i>	<i>1</i>	<i>1</i>
1.1. Evidence based and representative data on AMU and AMR improved for policymakers and sectors implementing AMU practices	OP2. Systems for generating, analyzing and interpreting data on AMR and AM consumption/use strengthened	2.1 Develop/adapt methods and tools to produce report on antimicrobials consumption and use for human/animal health at national, subnational, health care facilities, and medicines retail outlets	<i>Number of hospitals participating in integrated surveillance of AMR</i>	<i>0</i>	<i>20</i>
		2.2. Develop/adapt/adopt AMR data capture tool and database	<i>Data capturing tool</i>	<i>0</i>	<i>1</i>
		2.3. Strengthen/establish sustainable and scale up human and animal National AMR Surveillance system	<i>Number of Hospital enrolled in National AMR Surveillance # Trained on AST</i>	<i>9</i>	<i>20</i>
		2.4. Provide impetus for antimicrobial susceptibility testing (AST) in public and animal health laboratories through procurement of consumables: antimicrobials discs, funding to procure media, and reagents to 20 hospitals and 15 animal health, food safety and environment laboratories to detect, identify and AST of priority pathogens (raise awareness on the	<i>Handover notes</i>		<i>2</i>

Outcome(s)	Output (s)	Activities	Indicator	Baseline	Target
		<i>use of AST as a cost saving option than otherwise to sustain by the health system of the country and also include them in the annual national procurement list of the country and eligible institutions) after the end of the MPTF project</i>			
2.1. Use of antimicrobials optimized in critical sectors	OP3.Strengthened systems for infection prevention, hygiene, and biosecurity	3.1. Strengthen health care associated infections (HAI) Prevention and control in 20 hospitals to prevent HAI and AMR and scale up the evidences and good practices and linkage with AMR surveillance report (<i>integrated with AMS, budget shown under output 4</i>)	<i>Number of Hospitals implementing HAI prevention and Control Program integrated with AMS</i>	0	20
		3.2. Conduct surveys on knowledge, attitudes and practices about infection prevention, hygiene and biosecurity in animals	<i>KAP Survey report</i>	0	1
		3.3. Develop/adapt and implementation of standards on food safety, on biosecurity, infection prevention, and hygiene guidelines Including AMR /AMU and use of vaccines in animal health.	<i>Two species specific biosecurity guidelines</i>		2
	Output 4. Systems for Optimized use strengthened in critical sectors	4.1. Capacitate medicine regulatory bodies on market surveillance and control, regulatory inspection and sensitization on the impacts of substandard and falsified antimicrobials and (<i>include PMS</i>)	<i>Assessment report on substandard and falsified antimicrobials Number of tracer antimicrobials conducted PMS</i>	0	1
					4

Outcome(s)	Output (s)	Activities	Indicator	Baseline	Target
		4.2. Assess AMU practices (with due consideration to high priority critically important antimicrobials) and build capacity of animal health care providers on antimicrobials stewardship (prescribing, dispensing, adherence to treatment)	<i>AMU Report</i> <i>Number of animal healthcare providers trained on AMU and AMR</i>		<i>1</i> <i>80</i>
		4.3. Develop/implement user-friendly species specific treatment guidelines for animals based on international recommendations, their importance and risk of AMR	<i># of species specific guidelines</i> <i>Number of animal healthcare providers trained on STG use</i>		<i>2</i> <i>80</i>
		4.4. Establish/strengthen institutionalized and integrated antimicrobial stewardship and HAI prevention and control in 20 hospitals and scale up the evidence and good practices and linkage with AMR surveillance and IPC/HAI report (including monitoring adherence to STG, NEML, and evidence-based protocols) (<i>see OP3</i>)	<i>Number of hospitals implementing integrated AMS</i>	<i>0</i>	<i>20</i>
			<i>Number of model hospitals for IPC practices to prevent HAI</i>	<i>0</i>	<i>20</i>
		4.5. Develop/adapt standards, and best practices on safe food production and quality with consideration of antimicrobial withdrawal times and maximum residue limits in reference to Codex standards (<i>may include best practices in safe food production</i>).	<i>Guideline on safe production developed/adopted in consideration of withdrawal time and MRL</i>	<i>0</i>	<i>1</i>

1.3 Stakeholder mapping and target groups

Ethiopia had already identified all the relevant AMR stakeholders by assuming the engagement of the stakeholders' play an important role in combating AMR. Majority of them are members of the National AMR Advisory Committee. However, based on the national and regional assessment findings, there was less coordinated engagement and governance among stakeholders of the AMR advisory committee members (MOH, rapid assessment, 2020; MOH, Assessment of stakeholders' engagement, 2020).

Stakeholders	Desired behaviour	Their interest	Relationship	Program beneficiaries
Ministry of health Regional States and City administrations Health Bureaus	<ul style="list-style-type: none"> Coordinate implementation of the one health national AMR prevention and Containment Strategic Plan in human, animal and environment sectors Collaboratively work with each other in one health approach 	<ul style="list-style-type: none"> Technical and financial support Collaboration 	Coordinator of implementation in human sector	Implementation public health component of the AMR prevention and containment strategic plan
Ministry of Agriculture Regional States and City administration Regional Agriculture bureaus		<ul style="list-style-type: none"> Technical and financial support Collaboration 	Coordinator of implementation in animal and food production sector	Implementation agriculture component of the AMR prevention and containment strategic plan
Environment, forest and Climate Change commission and Regional State and City Administration environment Bureaus		<ul style="list-style-type: none"> Technical and financial support 	Coordinator of implementation in environment sector	Implementation environment component of the AMR prevention and containment strategic plan
Ethiopian Public Health Institute (EPHI) and its regional counterparts	<ul style="list-style-type: none"> Implement sustainable national human AMR Surveillance and advocacy use of evidence generated for decision making 	<ul style="list-style-type: none"> Technical and financial support Collaboration 	Coordinator of the national human AMR Surveillance	Coordinate and lead human AMR surveillance and research component of the strategic plan and AMR MPTF project
National Animal Health Diagnostic Investigation Centre (NAHDIC) and Regional Counter parts and National Veterinary Institute (NVI)	<ul style="list-style-type: none"> Implement sustainable national animal AMR Surveillance and advocacy use of evidence generated for decision making 	<ul style="list-style-type: none"> Technical and financial support Collaboration 	Coordinator of the national human AMR Surveillance	Coordinate and lead animal/veterinary AMR surveillance and research component of the strategic plan and AMR MPTF project

Stakeholders	Desired behaviour	Their interest	Relationship	Program beneficiaries
Ethiopian Food and Drug Authority and regional regulatory counter parts	<ul style="list-style-type: none"> • Effective enforcement of regulation of Antimicrobials • Collaboratively work with human, animal and environment sector in AMR Prevention and Containment following one health approach 	<ul style="list-style-type: none"> • Technical and financial support • Collaboration 	Enforcement of AMR regulation in human sector	Enforce regulation and directives on human medicines and coordinate collection and interpretation of AMU and AMC for policy and decision making for human and animal health
Ethiopian Veterinary Drug Animal Feed Administration and Control Authority and its regional branch offices	<ul style="list-style-type: none"> • Effective enforcement of regulation of Antimicrobials • Collaboratively work with human, animal and environment sector in AMR Prevention and Containment following one health approach 	<ul style="list-style-type: none"> • Technical and financial support • Collaboration 	Enforcement of AMR regulation in animal and feed sector	
Hospitals and health centres	<ul style="list-style-type: none"> • Institutionalized Implementation of integrated Antimicrobial Stewardship (AMS), and HAI Prevention and Control and engagement in AMR Surveillance 	<ul style="list-style-type: none"> • Technical and financial support • Evidence based protocol 	Implement of Integrated AMS and HAI	Implementation of the improved diseases prevention, diagnosis and treatment, AMS, and antimicrobials surveillance
Veterinary health facilities and Farms	<ul style="list-style-type: none"> • Effective Implementation of Antimicrobial Stewardship, Prevention and Control of Infection, and enrolled in national AMR Surveillance 		Implement of Integrated AMS and HAI	
Human, animal, plant health, food safety and environment professionals	<ul style="list-style-type: none"> • Appropriate /evidence-based prescribing, dispensing and administration of Antimicrobial 	<ul style="list-style-type: none"> • Access to evidence-based protocol 	Implement of antimicrobials, and HAI prevention	Capacity building on and AMS surveillance for improved AMS and AMS prudent use
Communities, Clients and Farmers	<ul style="list-style-type: none"> • Prevention from infection • Proper diagnoses 	<ul style="list-style-type: none"> • Effective disease prevention, treatment and 		Effective infectious and communicable disease

Stakeholders	Desired behaviour	Their interest	Relationship	Program beneficiaries
	<ul style="list-style-type: none"> • Appropriate use of Antimicrobial 	<ul style="list-style-type: none"> • prudent use of antimicrobials 		<ul style="list-style-type: none"> • prevention, biosecurity, hygiene, and prudent use of prescribed medicines and avoidance of self-medication use of AMs
One Health National AMR prevention and Containment Strategic Advisory Committee	<ul style="list-style-type: none"> • Development and implementation of the AMR prevention and containment strategy and action plan • Incorporation of the AMR strategic elements in their respective institution annual plans 	<ul style="list-style-type: none"> • Slow down or minimize AMR to a manageable level • Make use that useful life of effective AMs is maintained 	Work as OH national AMR advisory committee and individually in their respective institutions	The national AMR prevention and containment program, their respective institutions, health facilities, health care professionals, and the society at large
Academia and research institutions	<ul style="list-style-type: none"> • Education and research • Generate evidence 	<ul style="list-style-type: none"> • Education • Research • Capacity building 	They will serve as resources	Health care professionals Policy and decision makers
Civil societies	<ul style="list-style-type: none"> • Advocacy and raise awareness on AMU and AMR and prudent antimicrobials use 	<ul style="list-style-type: none"> • Support to facilitate advocacy efforts 	Civil societies	Improved their awareness and in turn do the same of their constituencies through
WHO/ FAO/ OIE	<ul style="list-style-type: none"> • Provision of technical and financial support to ensure sustainable implementation of National AMR Strategic plan • Collaboration among WHO, FAO and OIE-one health approach 	<ul style="list-style-type: none"> • Sustainable implementation of AMR Global Action plan 	Strategic support for effective implementation of the project Collaboration	Support sustainable implementation of the AMR MPTF project and Ethiopian AMR prevention and containment strategic plan
Development partners	<ul style="list-style-type: none"> • Collaboration in implementation of AMR prevention related activities covered in the project to avoid duplication of efforts and ensure synergy 	<ul style="list-style-type: none"> • Exchange of information • Collaboration • Bring about developmental change 		See Ethiopia's health and economic development are not affected the threats and impacts of AMR

2. Programme strategy

2.1 Overall strategy

Summarize the strategy of the joint Tripartite programme, including:

a) *Why it is transformational (will deliver results at scale)*

The AMR MPTF Tripartite program will accelerate sustainable implementation of Ethiopia's AMR prevention and containment strategic plan by facilitating support through the provision of guidance on planning, management and implementation, provision of direct technical assistance and capacity development of the different government staff and other stakeholders that will participate in the implementation process for posterity. This will scale up and support existing country efforts to fight against AMR through a One Health approach.

b) *Why it is better than alternative approaches.*

This approach is better in terms of harnessing expertise from the Tripartite with a collective focus while sharing resources aimed at achieving specific goals prioritised by the country AMR MPTF project team.

c) *How it contributes to accelerate the progress on achieving the NAP.*

The Tripartite program is envisaged to support and improve the mechanisms and capacity for One Health collaboration across Ministries and sectors in Ethiopia. With improved multi-sectoral collaboration and understanding of the roles each sector needs to play; there will be an expected renewed commitment to implement interventions outlined in the AMR strategic plan. This coupled with the financial and strategic technical support provided by the AMR MPTF and the capacity developed for implementation of specific interventions of the AMR NAP will speed up the progresses in achieving the objectives of the countries NAP on AMR.

d) *What will be the added value of the Tripartite?*

Ethiopia's efforts in contributing to the global agenda on AMR will be strengthened through the joint force provided by the tripartite owing to the long-standing partnership, combined technical knowledge, commitment to shared responsibility in coordinating and addressing health risks at the Human-Animal-Ecosystem interfaces that require multi-sectoral and multi-institutional cooperation. The tripartite, while providing multi-sectoral collaborative leadership, advocacy, coordination, and accountability will enhance the efficiency and cost effectiveness of realising the desired progress. The Tripartite will also ensure that the AMR NAP implementation at the country level is consistent and coherent with the Global Action Plan and the tripartite work plans.

e) *How it relates to AMR Global Action plan (GAP) priorities and initiatives.*

This Tripartite program relates to the AMR GAP priorities since it envisions addressing the objectives of the Global Action Plan (AMR GAP) while strengthening the existing systems in the country. The programme seeks to raise the profile and urgency of addressing AMR in the country through coordinated actions and by enhancing the country's response in reducing antimicrobial resistance and accelerating implementation of national action plans in a One Health approach as recommended by the Interagency coordination Group (IACG) on AMR report to the secretary-general of the United Nations in 2019. The tripartite program is thus building and investing in the present now to address antimicrobial resistance to avert greater consequences in the future.

f) How the programme would support government, and how government will sustain and scale results

The AMR MPTF programme will support the Ethiopian government by providing the much-needed financial and strategic support for implementation of AMR interventions in the country. The strategic technical assistance that will be provided by the Tripartite will support country priorities and will address the local needs for a comprehensive OH approach. Government staff will be trained and acquire adequate experience and expertise. This will increase the critical mass of skilled and competent staff required for the continual AMR NAP implementation in the country. The capacity building of government staff for collecting, building, and analysing the evidence base and reporting will go a long way in improving the countries capacity to produce quality data and reporting of AMR and AMU to global databases. And the use of such data for decision making will increase awareness and commitment of policy makers and managers of government institutions in AMR Prevention and Containment at national, sub-national and institution level thereby include AMR in their annual plan and allocated resource for its implementation.

g) How this programme fits with existing work of Tripartite organisations and other development partners.

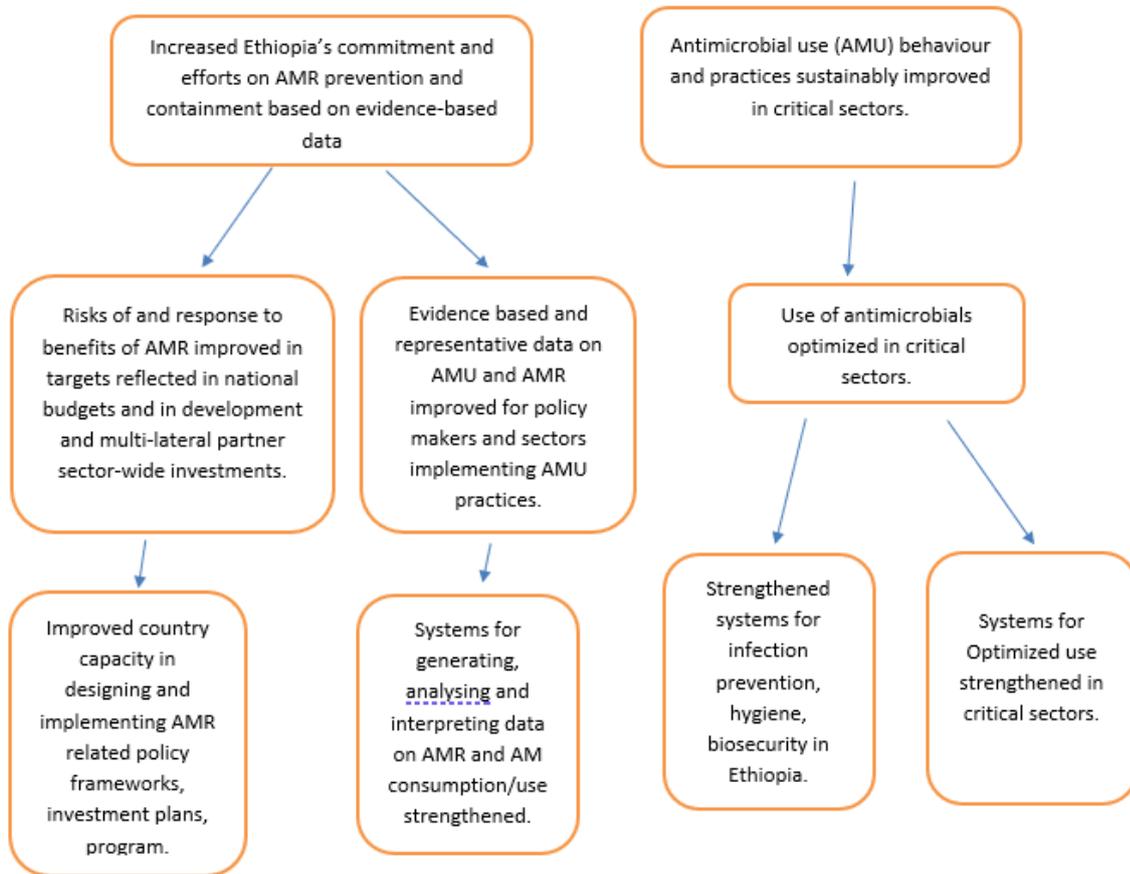
Each Tripartite partner within their respective mandates have AMR plans/strategies that guide their involvement and contribution to the achievement of the AMR Global Action plan objectives. This was further strengthened in 2018 by the signing of the Memorandum of Understanding that formalised and strengthened their cooperation with a particular focus on AMR. This has been further enhanced by the Tripartite Work plan (2019-2020) that supported the implementation of the Global action plan on AMR endorsed by the Tripartite partners.

h) What is the anticipated situation after this phase of the joint tripartite programme is effectively completed?

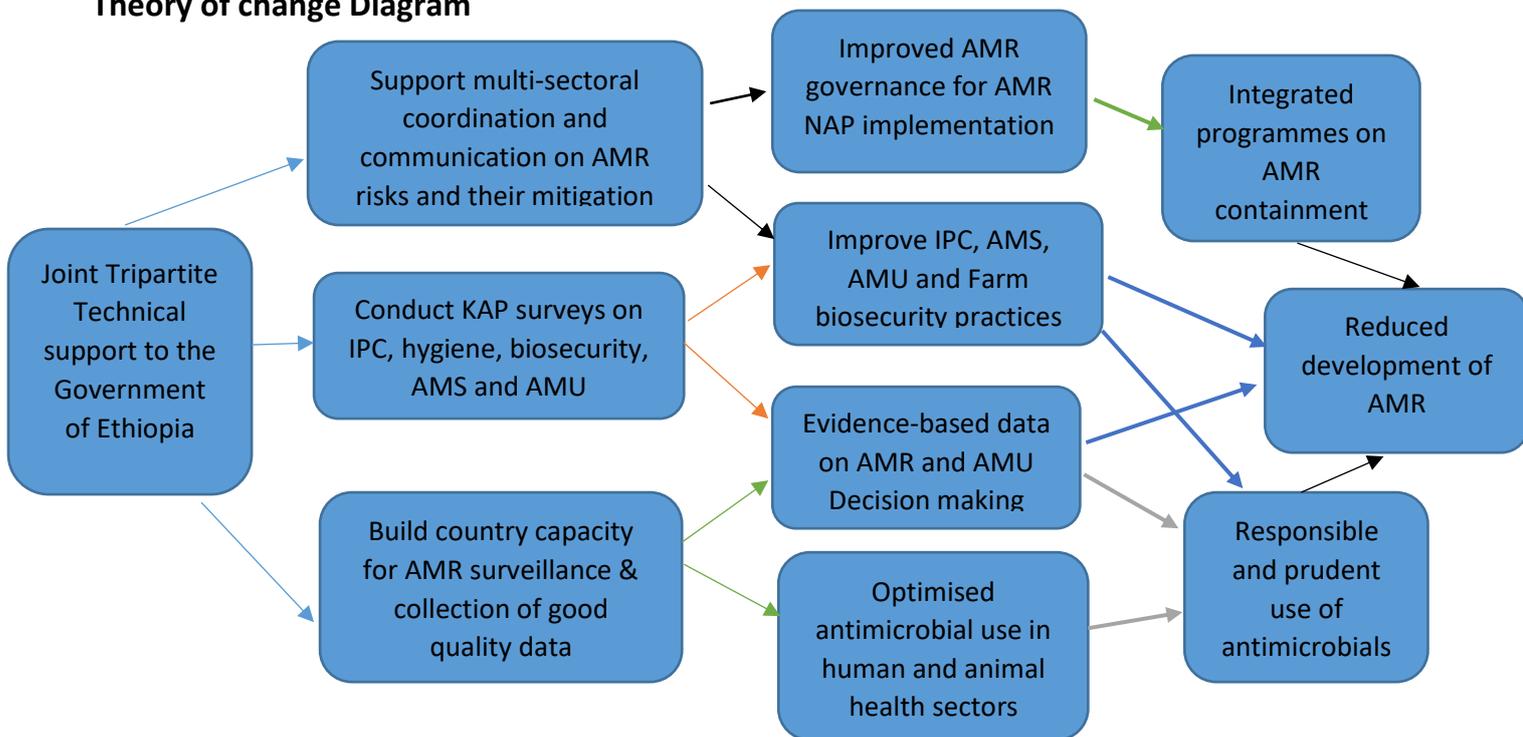
After the first phase of the joint Tripartite program implementation, improved multi-sectoral coordination and engagement with streamlined implementation of the Ethiopian AMR NAP is expected at federal, and major regional states' institutions. Prioritization of interventions to close the identified gaps through this project. Good quality data generation is envisaged because of the capacity-building programme to meet the technical skills and needs identified as crucial for implementation of the updated AMR NAP and increase the government organizations' sustainable commitment to implement AMR Prevention and containment.

2.2 Theory of Change

Areas of the MPTF results chain that are addressed by this project



Theory of change Diagram



There is no standard methodology for developing a Theory of Change (ToC). However, any ToC should address how the envisaged broader systemic change is expected to emerge, and what the contribution of the joint Tripartite programme is expected to provide. The ToC is not a plan or a results framework but the description of the rationale behind those. The ToC provides the basis for managing for results. Managing for results starts during the preparation and planning phase of programmes. The ToC can be described as the intended change process and depicts how the causally related results occur in the programmes environment. It captures a shared understanding of the path that leads to the desired objective (change), in a form that is understandable to all actors. The ToC addresses the following questions:

- *What results (please refer to Tripartite Results Matrix⁹) are the Tripartite collaboration trying to achieve?*

This tripartite project will address the following outcomes from the AMR MPTF Results Matrix: evidence based and representative data on AMU and AMR improved for policy-makers and sectors implementing AMU practices; Risks of and response to benefits of AMR reflected in national budgets and multi-lateral partner sector-wide investments; and use of antimicrobials optimized in critical sectors outcomes.

The Tripartite collaboration is trying to facilitate the multi-sectoral coordination committee in executing their mandate. This will enable the coordination committee to be able to hold regular meetings and participate in the implementation of this project. Another outcome of the tripartite collaboration will be the provision of resources required to build and sustain surveillance of AMC. AMU and AMR while promoting implementation of preventive measures against the development of AMR through antimicrobial stewardship, surveillance for health care associated infections (HAIs) and instituting hygiene and biosecurity in farms. All these geared towards proper infectious and communicable diseases diagnosis and management, prudent use of antimicrobials in human and animal health.

- *What is the priority objective from the perspective of project partners?*

The priority objective in this project is to strengthen existing systems, policy frameworks and ongoing programs at the country level to accelerate the sustainable implementation and scale up of interventions under the AMR strategic plan. The project partners will need provide a systematic coherent approach and joint interventions to address the global health risk of AMR in Ethiopia, through their shared responsibilities in implementing the AMR MPTF project.

- *How do different results relate to each other?*

The results from the different output areas are all related in the sense that a committed one health coordinating team to coordinate AMR activities in the country will be the foundation on which implementation of all the AMR activities in the country will be build and supported. With the strengthened governance structure, systems for generating, analysing, and interpreting AMR and AMU data as well as those for strengthening IPC and biosecurity can be put in place since they will all comprise of members from the coordinating committee, among others. The same coordinating committee will be required when setting up systems for optimised use and will be the ones organising the programs of how surveillance for AMR and monitoring AMU will be

⁹ AMR MPTF Results Matrix

undertaken and reported. This will be one way to ensuring continuity of the project interventions long after the project cycle.

- *What does the project assume responsibility for?*
The project assumes responsibility for timely implementation within the context of collaboration and partnership with the government of Ethiopia to gradually achieve the proposed outcomes and outputs. This will only be achievable considering the political and health conditions during the project implementation period.
- *What contributions do partners make towards achieving results?*
The tripartite partners are committed to supporting a One Health approach to AMR in Ethiopia by providing policy direction, technical assistance, and capacity development for specified interventions to support country priorities which contribute to the project outputs.
- *Can the objectives be achieved using the resources that the partners are able to provide?*
The objectives may be achieved using the resources that the partners are able to provide but they need to be sustained after the project cycle. Sustaining the project objectives may require the government investing to continue with and build on systems put in place during the project. One key objective is to provide funding for implementation of the planned activities with the intent to leverage government resources. Private sector and other partners' investments to leverage on the Tripartite resources could also support and reinforce the projects objectives.

2.3 Expected results and Narrative

This narrative relates directly to the work plan (Annex 4) and log framework (Annex 1)

- *Describe the Tripartite activities and outputs and outline the interrelationship between them and how they can contribute to the outcome.*
The Tripartite activities under each output area are carefully selected to contribute to the stepwise achievement of the proposed output. In seeking to improve the country's capacity in designing and implementing AMR related policy framework, investment plans and programs, the priority activities are geared towards ensuring that there is a well organised strong multi-sectoral governance team at the national and federal levels of governance to coordinate the implementation of the AMR strategic plan in Ethiopia. Efforts to strengthen the surveillance and monitoring for AMC, AMU, and AMR have been planned. This is expected to ensure effective surveillance systems that are well coordinated and complementary among sectors and levels of governance to provide a platform for credible data collection, analysis and reporting.

A survey on knowledge, attitudes and practices about infection prevention, hygiene and biosecurity in animals is expected to provide more information on IPC and biosecurity, which will guide future behaviour change interventions in the quest to improve the system. Implementation of best practices as guided by international standards will set up a foundation on which progress will be assessed. Evidence based institutional and integrated antimicrobial stewardship and prudent use, HAI prevention and control program and AMR Surveillance in selected health facilities will be applied and later scale.

- *Indicate which tripartite partner(s) will be accountable for the delivery of specified results at activity and output level.*

Output 1 and 2, will be jointly implemented by all the tripartite agencies since it requires a multi-sectoral approach. WHO will be accountable for strengthening IPC in hospitals under output 3 while FAO and OIE will collaborate in implementing hygiene and biosecurity in farms and sensitisation of the stakeholders in the agriculture sector. This approach will be replicated in ensuring the optimisation of AMU in the human health and Agricultural sectors under output 4.

Identify capacity needs and precondition requirements of government to sustain results. The country requires a scale-up on testing for AMR. This is the reason behind the planned purchase of laboratory reagents to improve the AST testing capacity. The need to strengthen the capacity for post market surveillance of antimicrobial agents by the medicine regulatory authority has been identified. The project will be working with the AMR coordination team focal points in MOH, MOH, and EFCCC and their agencies at all level as well as regularly advocating to the policy makers and management in the country. Capacity building of government staff for implementation of these specific interventions will ensure the continuity of the implementation of activities for posterity.

- *Indicate trans-boundary and regional issues and opportunities where relevant*

Ethiopia has been one of the early implementers of AMR programs in the region as compared to other the other countries in Eastern Africa. The strengthening of systems for AMR NAP implementation along the selected outputs will provide an opportunity for experience sharing with other countries in the region. Learning from the successes and challenges encountered in the process of implementation of AMR interventions would help countries in the region address their own challenges and better plan while building upon the successes from Ethiopia without having to re-invent approaches and methodologies.

- *Briefly outline the expected progress towards the selected outcome(s) from Tripartite AMR result matrix.*

A stepwise implementation of the proposed activities is planned to facilitate a gradual implementation of interventions with activities building up on each other to achieve outputs and then outcomes for a cohesive project program.

- *Describe the changed situation with respect to AMR management in the country at the end of this phase of investment. Do it in the form of storytelling, as a future scenario for early 2022*

After a year of this project implementation in Ethiopia, there will be a strengthened the leadership and governance of AMR with representation of the various relevant sectors. All the members of the multi-sectoral coordination committee will be able to carry out their functions well due to the support provided by the Tripartite program. Implementation of a good number of the planned project activities as guided by the implementation plan will be on course. An M& E framework with agreed country specific SMART indicators for monitoring progress made will be in place and a planned mid-term project review will be scheduled to inform on the progress towards meeting the project objectives and an evaluation of the implantation of the planned activities and how to improve the collective response. All stakeholders identified to take part in the project implementation will have been brought on board and will be participating in project activities.

- *Describe how the joint tripartite programme will contribute to strengthened gender and equity issues (avoiding disadvantage to vulnerable groups).*

This tripartite programme expects to contribute to strengthening gender and equity issues by carrying out a survey on knowledge, attitudes and practices about infection prevention, hygiene, and biosecurity in animals. The information derived from this survey will bring out the levels of knowledge, attitudes, and the practices of different stakeholders in preventing infections in humans and animal. This information will help to tailor health education, awareness raising and behaviour change strategies and to identify how best to address issues arising from the survey for increased effectiveness of interventions among the different categories of stakeholders in the society.

2.4 Budget, sustainability and value for money

- *Justify the budget in terms of “value for money.” Give specific examples of how costs have been contained (economy) and how the joint Tripartite programme design represents the most efficient approach. Outline the options considered for to identify the most efficient and effective intervention to address the problem.*

Involvement of home-grown human resources coupled with the Tripartite team’s oversight and technical support in the implementation of this project will be the most efficient in establishment of AMS teams in health care facilities and linking with surveillance of AMR and *Hospital Acquired Infections* (HAIs) and further integrated in monitoring of AMR interventions in healthcare settings. Reviewing and monitoring of adherence to treatment guidelines both in human and animal health will progressively steer the professionals to the desired antimicrobial stewardship objectives in both sectors.

- *Sustainability: Describe how the approach to delivery will enhance the chances that impact, and benefits will be sustained after the end of the joint Tripartite programme.*

The implementation of the tripartite AMR MPTF project at the country level builds on the existing mechanism and personnel that has been implementing Ethiopia’s interventions in the AMR strategic plan for the country. This means that the existing governance mechanism will be strengthened for better project outcomes. The projected capacity building for healthcare professionals through the training of trainers is one of the ways to ensure sustainability. This is because the government employees trained during the project implementation could be used to train others long after the project is over. The trained professionals will continue propagating the good practices. The cascading of AMR governance from the federal to subnational and institutional levels will entrench the implementation of the AMR strategic plan in Ethiopia and therefore increase the cumulative effect on interventions implemented. There are several tools to be developed for data capture and reporting of AMU and AMR. These will be used for posterity of AMR interventions in the country. Establishment of AMS teams in health care facilities and implementation of IPC guidelines will improve hygiene and entrench antimicrobial stewardship among the health care teams in hospital settings. Implementation of biosecurity guidelines and good agricultural practices. The project will provide funding for the procurement of laboratory consumables and supplies with the aim of leveraging on government resources.

- *Demonstrate how long-term financial sustainability will be secured at the end of the programme. Demonstrate how the intervention supports equitable and sustainable outcomes.*

Long-term financial sustainability is expected once the different levels of government (national and Federal units), different institutions will increase and consider setting aside funds for the implementation of AMR activities following their involvement in the National AMR strategy revision and implementation. The tripartite team will work with the country team through lobbying and advocacy to promote government ownership and sustainability of the project inputs from the very beginning. WHO plans to support the One Health Advisory Committee so that AMR prevention and containment is included in their annual plans and budgets. A public private partnership forum is planned. This is expected to bring together different sectors partners, donors, and the AMR multi-sectoral coordination group to encourage participation of the different institutions, donors and partners to share the responsibilities and funding of different components of the Ethiopian AMR strategy for a collaborative implementation. This will aid in filling up some funding gaps and mapping out the supported activities and those that will still require external resources to be mobilized. The proposed activities will attempt to generate evidences that expenditures on AMR Containment will have returns; this with some advocacy will then convince the government for further investment AMR.

2.5 Partnership and stakeholder engagement (max 2 pages)

- *How this joint Tripartite programme would support the work of the National AMR coordination committee*

The national AMR coordination committee has been working, on AMR prevention and containment; however, due to lack of resources functionality is limited. Hence, the tripartite AMR MPTF program support to the task force for full functionality to plan and implement defined tasks will be enhanced. This will strengthen collaboration amongst task force member institutions.

- *Which government departments would be involved in programme delivery and what is their role; and the unique contribution of the tripartite.*

Our approach in the prevention and containment of AMR is system strengthening and sustainability. Therefore, the line ministries who are at the forefront of in combat against AMR such as MOH for human health, MOA for animal and plant health and food sectors, EFCCC for environment, their respective departments, agencies, and centres are the owners of such efforts. And the tripartite' s role is to capacity the institution to take the leading role and integrate AMR prevention and containment into the health services delivery and incorporate in their annual and strategic plans. It has known that the members of the tripartite has mandates and areas of experts in supporting the government ministries and departments.

- *Strategic contributions from other partners and the ways in which other stakeholders (including the financial sector and private investors/capital) will be involved and/or consulted.*

In Ethiopia, there are several actors in the prevention and containment of AMR in addition to the line ministers mentioned above such ministry of science and higher education, as the private the civil society organizations, academia and research institutions, the private and government mass media, development partners such as USAID and CDC and others. These have been part of the efforts and has contributed to the advocacy, awareness raising and other efforts over the years. There are possibilities to have synergies with the listed organizations. For example, the Ethiopian mass media has played and contributed a lot [link](#). Almost all health professions made AMR as their

own agenda at least once as a topic in their annual scientific conferences and continuing education programs.

- *Explain how the joint Tripartite programme will pool and mobilize expertise from across the Tripartite at country, regional and global levels*

There has been good experiences in pooling and mobilizing experts within and across the tripartite agencies for example [link](#), [link](#), [link link](#) in advocacy, experiences sharing and in the development of regional and global guidance.

- *Explain how you plan to engage with existing AMR donors delivering assistance at country level in areas related to the joint Tripartite programme taking advantage of potential synergies and avoiding overlaps*

Ethiopia has a one health AMR prevention and containment strategic plan with five output areas or objectives. This plan has identified priority areas and specific areas of interventions under each of the objectives. Hence, any interested donor who going to be engaged will look the areas of interest and mandate and in synergy with AMR MPTF program as we did while we are developing this project. The AMR secretariat and members of the OH advisory committee will make sure to avoid overlaps. We have a very good recent lesson where the government institutions along with Infectious Disease Detection and Surveillance (IDDS) /USAID and FAO has produced the opportunities of integrating AMR surveillance.¹⁰

- *If there is a risk that there might be double counting of results between existing programmes explain how this will be avoided.*

Despite synergise in the implantation of the prevention and containment of AMR, each of the stakeholders have well defined deliverables and targets. This strengths accountability, transparency, and avoid the risk of double counting of results between existing programs. Moreover, the multi-stakeholder's national coordination committee as well as the respective government institutions will monitor the program results and outcomes.

2.6 Programme implementation in the light of COVID-19

- *Explain how programme implementation may be affected by COVID 19.*

The programme implementation may be affected by COVID-19 due to cancellation and rescheduling of certain activities, restrictions imposed due to lockdowns and social distancing, overwhelming of health facilities and staff capacities due to COVID-related commitments etc. For instance, many hospitals and sentinel sites/labs that are enrolled in national AMR surveillance may be overwhelmed with COVID 19 diagnosis and treatment services that created difficult in prioritizing undertaking and report AST reports to the national AMR Surveillance coordinating centers.

However, COVID-19 pandemic has also illustrated the importance of addressing AMR.

Anecdotal evidence suggests that the use and misuse of antimicrobials has increased in Ethiopia for the management of confirmed or suspected COVID 19 cases. This increases the risk of fueling the prevalence of AMR in the country.

¹⁰ Assessment report on opportunities for integrating human, animal, and environmental health AMR surveillance systems under one health platform in Ethiopia

In addition, the COVID-19 pandemic has also highlighted the need for more widespread promotion and implementation of infection prevention and control in health facilities and community level to prevent transmission of SARS-CoV-2. This will positively influence effective implementation and integration of AMS and HAI prevention.

- *Identify how you plan to mitigate any COVID 19 related risks.*

Effective and proactive mitigation efforts will be taken to mitigate any COVID-19 related risks. The AMR MPTF project will work closely with the stakeholders involved in COVID-19 control and mitigation to remain abreast of the developments and trends. The project will also work closely to strengthen the ongoing efforts to strengthen IPC measures and restrict HAI.

The project will also prioritize activities that can be done with COVID-19 restrictions. In addition, steps will be taken to encourage the use of digital technology such as virtual meetings, online trainings etc. The project will also collaborate and coordinate with the COVID-19 efforts to increase awareness/sensitization on AMR. The project will also endeavour to include internal iterative discussions to adapt the implementation in face of the changing context.

- *Explain aspects of the proposed programme that have changed from the concept note to align more closely with the national COVID 19 response.*

Since the concept, in line with the national COVID-19 response, the following planned activities have been provided greater emphasis: National AMR Surveillance, Antimicrobial Stewardship, reducing HAI, strengthening infection prevention and control, and updating and promoting monitoring compliance with National Essential Medicine Lists and evidence-based standard treatment guidelines.

2.7 Communication, Advocacy and Lesson Learning

There are plenty of opportunities that advocacy can be established within the joint Tripartite programme. First, while streamlining multi-sectoral collaboration to improve the country's capacity for designing and implementing AMR programs, communication and advocacy for the multi-sectoral engagement will be key to establish the agenda and reaching out to the various stakeholders. The representative AMR and AMU data generated, analysed and interpreted through the strengthened systems will also provide an opportunity to advocate for better AMR containment policies and AMU regulatory frameworks from the policy makers.

Establishment of IPC, AMS, hygiene and farm biosecurity will be ideal for communication with professionals both in hospitals and veterinarians as well as farmers. This will enable the project team to select appropriate messages targeting specific stakeholder audiences to enhance participation, contribution and realisation of the project's outcomes.

Implementation the joint tripartite program will provide opportunities for lesson learning for the Tripartite partners together with the country project team derived from the OH AMR multi-sectoral coordination since it is a new collaborative initiative. This will allow the country project team to review implementation and assess what can be improved.

3. Programme implementation

3.1 Governance and implementation arrangements (max 3 pages)

Ethiopia key government institutions participated in the development of this AMR MPTF project. They will be engaged, responsible and take leadership role in its implementation of the project. These institutions are the Ministry of Health (MoH), Ministry of Agriculture (MoA), Ministry of Science and Higher Education (MOSHE), and Environment Forest and Climate Change Commission (EFCCC). The authorities, agencies and canters under the above ministries and include Ethiopia Food and Drug Administration (EFDA), Veterinary Drugs and Feed Administering and Control Authority (VDFACA); Ethiopian Public Health Institute (EPHI), National Animal Health Diagnostic and Investigation Centre (NAHDIC), Armeur Hansen Research Institute (AHRI), and National Veterinary Institute (NVI); and Ethiopian Pharmaceutical Supply Agency (EPSA). These institutions are also members of the OH AMR advisory committee which will play key role in the implementation of the AMR MPTF project.

The AMR MPTF project team in Ethiopia believes the need for one health approach for prevention and containment of AMR. This OH approach and the agencies and government institutions have the practice of working together since inception of the AMR work in Ethiopia. The AMR MPTF project will cement and strengthen the existing collaboration to work in a project.

The Ethiopia AMR MPTF project will be coordinated by the agencies forming the tripartite, FAO-WHO-OIE jointly and in their assigned responsibilities.

Each of the Tripartite agencies have technical experts and AMR focal persons. These experts with the government counter parts experts will be responsible for the day-today implementation of the activities, monitoring and lesson learning of their assigned responsibilities as indicated in the plan. They will also coordinate among themselves as a team and closely work with the respective government institutions and authorities mentioned above.

The FAO and WHO country representatives residing in Addis Ababa and the OIE Sub-Regional Representative for Eastern Africa from Nairobi, Kenya will provide strategic oversight and leadership. These heads and their experts will raise AMR as a development agenda to the higher level of government and UN agencies and oversee the AMR MPTF project for Ethiopia. FAO will do the overall coordination with the additional support of the national coordinator.

The AMR MPTF project is complementing the respective government development plans in general and the national OH AMR prevention and containment strategy to ensuring ownership and sustainability under this project.

3.2 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.

To comply with AMR MPTF Tripartite requirements and national context, the project will have well-designed One Health reporting and monitoring and evaluation framework.

The implementation of the project will be closely monitored and evaluated by the Inter-ministerial committee, national and regional state, and city administration AMR advisory committee in addition to the Federal Ministry of health, Federal Ministry of Agriculture, and Environment Forest and Climate Change commission and their regional counter parts.

Reporting system

AMR MPTF project implementing institutions include: the federal Ministry of Health (MOH), Ministry of Agriculture (MOA), and Environment Forest and Climate Change Commission (EFCCC). And the Authorities, institutes and centres: Ethiopian Public Health Institute (EPHI), National Animal Health Diagnostic Investigation Centre (NAHDIC), Ethiopian Food and Drug Authority (FDA), Veterinary and Feed Administration and Control Authority (VDFACA), and National Veterinary Institute. The regional counter parts which are coordinating and implementing AMR prevention and containment planned activities will report using appropriately designed reporting templates based on the indicators and plan of action. The reporting templates that will be used for reporting implementation and achievements will be in alignment with the Tripartite requirements. The types of reports and reporting period will be:

- National AMR Surveillance sites will report AST results to EPHI in the case of human and to NAHDIC in case of animal on quarterly basis and EPHI and NAHDIC provide feedback to the reporting institutions. In addition, a one-health annual AMR surveillance review meeting will be organized.
- Health facilities implementing integrated AMS and HAI prevention and control program will report their performances and achievement to Federal Ministry of Health- AMR secretariat (in case federal Hospitals), to Regional State or city administration Health Bureaus (in case of hospitals under the regional health bureaus) and to regional and city administration agriculture bureaus (in case of animal health facilities) on quarterly basis and recipients of the report provide feedback to the reporting institutions
- The regional state and city administration health bureaus and agriculture bureaus will compile reports, include their performances and submit the reports to their respective line ministries and AMR MPTF coordination. For example to the ministry of health AMR prevention and containment secretariat or to AMR focal point to ministry of agriculture, to EFDA, and to VDFACA on quarterly basis and recipients of the reports will provide feedbacks and acknowledgement to the reporting institutions.
- All reports, baseline assessments, surveys and related studies will be reported to the AMR MPTF coordinator and the AMR secretariat or focal points in the respective line ministries on quarterly basis and they will provide feedback and acknowledgement to the reporting institutions.
- Copies of all reports, baseline assessments, surveys and related studies will be documented to WHO (in case of human health), to FAO (in case of animal health, food safety and environment).
- WHO and OIE would compile and submit their respective achievements and reports to the AMR coordination at FAO, the coordinating agency.
- Finally, the compiled and edited report by the by AMR MPTF coordinator will be submitted to the global joint tripartite secretariat office on biannual basis and recipients of the report provide feedback and acknowledgement to the reporting institutions.

Joint Monitoring

- Regular review meeting on implementation and achievements of the various activities will be conducted on quarterly, biannual and annual basis at regional and ministerial, national AMR Advisory committee and federal/country level respectively

Joint Evaluation

- Mid-term evaluation on performance and achievements will be conducted by WHO, FAO, OIE, MOH, MOA and EFCCC jointly

External evaluator will conduct terminal Evaluation at the end of the project period

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 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 Programme¹¹ (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 months after the operational closure of the activities of the Joint tripartite programme.

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.

In addition, 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, will be provided to the National Coordination Committee.

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.

¹¹ This will be the basis for release of funding for the second year of implementation

In addition, regular updates on financial delivery will be provided, and as per the request of the AMR MPTF 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.

3.3 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 X

Appendices 2.1 and 2.2. Attached

Annexes

Annex 1 - Log Framework Template

AMR MPTF Log framework		Name of country: Ethiopia		
<i>Impact:</i> Contribute to increased Ethiopia's commitment and efforts on AMR prevention and containment based on evidence-based data, and Antimicrobials use (AMU) behaviours and practices sustainably improved in critical sectors				
Objective	Indicators	Sources of verification		Key assumptions and risks
MPTF Outcome 1.2.: Risks and benefits of AMR reflected in national budgets and in development and multi-lateral partner sector-wide investments	Indicator 2: AMR containment plan/response included/integrated in the 5 federal and regional institutions plans and budget Baseline value: only few have included AMR in their plans Target value: At least MOH and MOA include AMR activities in their budgets	Review of annual plans		Institutions will understand the risks of AMR and include in their plans
MPTF Output Objectives	Indicator	Source of Verification	Key Activities	Key Assumptions and Risks
OP1. Improved Ethiopia's capacity in designing and implementing AMR related policy frameworks, investment plans, and program	Indicator 1.1: Developed AMR prevention and containment strategy/ NAP framework with monitoring and evaluation, and costing	Validated strategic plan	1.1. Provide support to multi-sectoral coordination committee: inter-ministerial committee, AMR advisory committees, including establishment of functional technical working groups on	<i>Ethiopian government committed to sustain the AMR strategic plan</i>

AMR MPTF Log framework		Name of country: Ethiopia		
Impact: Contribute to increased Ethiopia’s commitment and efforts on AMR prevention and containment based on evidence-based data, and Antimicrobials use (AMU) behaviours and practices sustainably improved in critical sectors				
Objective	Indicators	Sources of verification		Key assumptions and risks
	<p>Baseline value: old version of the strategy Target value: one</p>		<p>advocacy, regular review meetings to federal, 5 regional states and one city administration</p> <p>1.2 Support AMR coordination committee to develop stakeholders engagement strategy, and behaviour change communication and advocacy products to key stakeholders</p> <p>1.3. Cascade and scale up for implementation of multi-sectoral coordination strategy on AMU and AMR surveillances and good practices from federal to sub-national, and institution levels, and promote public-private partnerships</p> <p>1.4. Monitor implementation of the OH Ethiopian AMR prevention and containment strategic plan /POA and evaluation of the AMR MPTF project (<i>support the refining, co-signing, advocacy for inclusion in the strategic and development plans, and strategic interventions with the support of the tripartite members</i>)</p>	
	<p>Indicator 1.2: Operational plan for implementing the revised/updated NAP with the Associated budget</p> <p>Baseline value: none</p> <p>Ethiopia has a national strategy ending in 2020 with no adequate M & E and costing and no communication strategy</p> <p>Target value:five</p>	1.2 Institutional plans		

AMR MPTF Log framework		Name of country: Ethiopia		
Impact: Contribute to increased Ethiopia's commitment and efforts on AMR prevention and containment based on evidence-based data, and Antimicrobials use (AMU) behaviours and practices sustainably improved in critical sectors				
Objective	Indicators	Sources of verification		Key assumptions and risks
MPTF Outcome 1.1. <i>Evidence based and representative data on AMU and AMR improved for policy-makers and sectors implementing AMU practices</i>	Indicator 1: Information shared on trends of AMC (H & A) annually to policy and decision makers Baseline value: Some raw data on AMC at national level are available but may be incomplete Target value: Complete reports on AMC and AMR at national level	Report(s)/policy briefs on AMR and AMC		Incomplete report due to missing data
MPTF Output Objectives	Indicator	Source of Verification	Key Activities	Key Assumptions and Risks
<i>OP2. Systems for generating, analyzing and interpreting data on AMR and AM consumption/use strengthened</i>	Indicator 2.1: Report on AMC and AMU Baseline value: There are some attempts to compile AMC and AMR reports but not sufficient data and did not generate report Target value: two Human and animal	2.1 Reports on AMC and AMU	2.1. Develop/adapt methods and tools to produce report on antimicrobials consumption and use for human/animal health at national, subnational, health care facilities, and medicines retail outlets 2.2. Develop/adapt/ adopt AMR data capture tools and database 2.3. Strengthen/establish sustainable and scale up human and animal National AMR Surveillance system	<i>The AMC/AMU data are recoded and maintained</i> <i>Labs are regularly reporting their AST performances</i>
	Indicator 2.2: Percentage of laboratories with capacity to perform AST	2.2 AMR reports and annual review meetings		

AMR MPTF Log framework		Name of country: Ethiopia		
Impact: Contribute to increased Ethiopia’s commitment and efforts on AMR prevention and containment based on evidence-based data, and Antimicrobials use (AMU) behaviours and practices sustainably improved in critical sectors				
Objective	Indicators	Sources of verification		Key assumptions and risks
	<p>Baseline value: National AMR surveillance plan exist for human and animals</p> <p>Target value: at least 25% in the first and 75 in the second year do AST</p>		<p>2.4. Provide impetus for antimicrobial susceptibility testing (AST) in public and animal health laboratories through procurement of consumables: antimicrobials discs, funding to procure media, and reagents to 20 hospitals and 15 animal health, food safety and environment laboratories to detect, identify and AST of priority pathogens (<i>raise awareness on the use of AST as a cost saving option than otherwise to sustain by the health system of the country and also include them in the annual national procurement list of the country and eligible institutions) after the end of the MPTF project</i></p>	
<p>MPTF <i>Outcome 2.1: Use of antimicrobials optimized in critical sectors</i></p>	<p>Indicator 3: Proportion of patients with bloodstream infections due to selected antimicrobial resistant organisms.</p> <p>Number of HFs/ or farms adhering to guidelines</p> <p>Baseline value: no data</p> <p>Target value: 50% adherence</p>	<i>HFs Reports</i>		<i>HFs record and maintain data</i>

AMR MPTF Log framework		Name of country: Ethiopia		
Impact: Contribute to increased Ethiopia’s commitment and efforts on AMR prevention and containment based on evidence-based data, and Antimicrobials use (AMU) behaviours and practices sustainably improved in critical sectors				
Objective	Indicators	Sources of verification		Key assumptions and risks
	<p>Indicator 4:</p> <p>Percentage of antimicrobials intended for use in food-producing animals by antimicrobial classes</p> <p>Proportion of antimicrobials consumed in the human sector that are in the Access category</p> <p>Baseline value: No report on access watch and reserve antimicrobials</p> <p>Target value: at least 60% of the antimicrobials used will be in the access category</p>	<p>Reports on antimicrobials intended for use in food producing animals</p> <p>Reports on use of AMs in human health</p>		<p>Records on the use of AM in food producing animals in the country will be shared with the project team</p> <p>Records on AMU in healthcare exist</p>
MPTF Output Objectives	Indicator	Source of Verification	Key Activities	Key Assumptions and Risks
OP3.Strengthened systems for infection prevention, hygiene, and biosecurity	<p>Indicator 3.1: Infection prevention & control (IPC) and biosecurity and good practices guidelines developed and/or disseminated</p> <p>Baseline value: No adequate information on this</p>	3.1 IPC and biosecurity guidelines available in HFs	3.1. Strengthen health care associated infections (HAI) Prevention and control in 20 hospitals to prevent HAI and AMR and scale up the evidences and good practices and linkage with MR surveillance report (<i>integrated</i>	<i>HFs and HCPs will be more sensitive to these due to the covid-19 threats.</i>

AMR MPTF Log framework		Name of country: Ethiopia		
Impact: Contribute to increased Ethiopia's commitment and efforts on AMR prevention and containment based on evidence-based data, and Antimicrobials use (AMU) behaviours and practices sustainably improved in critical sectors				
Objective	Indicators	Sources of verification		Key assumptions and risks
	<p>Target value: 25% HF 75% in the second year</p> <p>Indicator 3.2: Number of trained professionals on IPC and Biosecurity</p> <p>Baseline value: No adequate information on this</p> <p>Target value: 25% HCPs and 75% in the second year</p>	<p>3.2 IPC and biosecurity guidelines adhered to by HCPs</p>	<p><i>with AMS, budget shown under output 4)</i></p> <p>3.2. Conduct surveys on knowledge, attitudes and practices about infection prevention, hygiene, and biosecurity in animals</p> <p>3.3. Develop/adapt and implementation of standards on food safety, on biosecurity, infection prevention, and hygiene guidelines Including AMR /AMU and use of vaccines in animal health.</p>	
MPTF Output Objectives	Indicator	Source of Verification	Key Activities	Key Assumptions and Risks
OP4. Systems for optimized use of antimicrobials strengthened in critical sectors.	<p>Indicator 4.1: Number of HCPs who are provided with capacity development trainings on antimicrobial stewardship</p> <p>Baseline value: do adequate information</p> <p>Target value: 25% of the HCPs and 75% in the second year</p>	4.1 Proceedings reports	<p>4.1. Capacitate medicine regulatory bodies on market surveillance and control, regulatory inspection and sensitization on the impacts of substandard and falsified antimicrobials (<i>include PMS</i>)</p> <p>4.2. Assess AMU practices (with due consideration to high priority critically important antimicrobials) and build capacity of animal health care providers on antimicrobials stewardship (prescribing, dispensing, adherence to treatment)</p>	<i>Antimicrobial stewardship aligned/integrated with COVID-19 prevention</i>
	<p>Indicator 4.2: Number of HCPs who adhered with to standard treatment guidelines (STGs) for tracer diseases</p>	4.2 assessment reports		

AMR MPTF Log framework		Name of country: Ethiopia		
Impact: Contribute to increased Ethiopia's commitment and efforts on AMR prevention and containment based on evidence-based data, and Antimicrobials use (AMU) behaviours and practices sustainably improved in critical sectors				
Objective	Indicators	Sources of verification		Key assumptions and risks
	<p>Baseline value: No adequate information</p> <p>Target value: Percent of HCPs adhering to STGs</p>		<p>4.3. Develop/implement user-friendly species specific treatment guidelines for animals based on international recommendations, their importance and risk of AMR</p> <p>4.4. Establish/strengthen institutionalized and integrated antimicrobial stewardship and HAI prevention and control in 20 hospitals and scale up the evidence and good practices and linkage with AMR surveillance and IPC/HAIs report (<i>including monitoring adherence to STG, NEML, and evidence based evidence-based protocols</i>) (<i>see OP3</i>)</p> <p>4.5. Develop/adapt standards, and best practices on safe food production and quality with consideration of antimicrobial withdrawal times and maximum residue limits in reference to Codex standards (may include best practices in safe food production). (<i>may include best practices in safe food production</i>).</p>	

Annex 2 - Risk Matrix Template

Risk description	Risk Category Contextual Programmatic Institutional	Worst case consequence for the project			Mitigating action	Action owner
			Impact	Likelihood		
The upcoming May 2021 national election and instabilities in some parts of the country may delay the implementation of the AMR MPTF project in the areas affected	Contextual	Delay in the implementation of the early phase activities and the areas affected	High	Moderate	<ul style="list-style-type: none"> The AMR MPTF project is expected to start in July 2021 and after the election; The federal government has taken mitigation strategies for the instabilities and will not continue for long. Plan ahead where to start and then scale up the AMR MPTF project 	The federal government and all AMR MPTF stakeholders will plan ahead
The trajectory of COVID-19 pandemic during the implementation period may interfere in implementation of the MPTF project	Contextual	May slow in the implementation of some activities	High	Moderate	<ul style="list-style-type: none"> Follow or use alternative options for the implementation of the AMR MPTF as for others. We will use the COVID-19 interventions such as infection prevention and lab capacity building as opportunities for strengthening AMR prevention, containment, and surveillance. And will align in response plans The introduction of COVID-19 vaccines is another opportunity 	All stakeholders implementing AMR MPTF
Delay in timely release of AMR MPTF funding	Programmatic	Delay in the implementation of the project as planned	Low	Low	Timely Communication and coordination	AMR MPTF Funder
Turnover of government staff who are implementing the AMR MPTF project	Institutional	Delay in implementation	Moderate	Low	Support ownership and sustainability in the system. Regular replacement, refresher and exchanges of notes and updates	All stakeholders implementing AMR MPTF
Ethiopia is a big country and AMR is high in the agenda. Probability of not accessing some parts of the country.	Institutional	Inadequate coverage.	Low	Low	This could be an opportunity for project implementation. Agree on prioritization of activities. Success and evidence will guide support decisions and linkage with development partners. Ethiopia has some experiences in the implementation of AMR.	Ethiopian AMR MPTF stakeholders

Annex 3 - Outline of Budget

Categories	FAO	OIE	WHO	TOTAL
1. Staff and other personnel costs ¹²	122,550	65,000	72,000	243,000
2. Supplies, Commodities, Materials ¹³	25,000	10,000	40,000	75,000
3. Equipment, Vehicles and Furniture including Depreciation ¹⁴	-	-	-	-
4. Contractual Services ¹⁵	0	59,000	108,540	238,540
5. Travel ¹⁶	5,000	131,510	59,990	343,175
6. Transfers and Grants Counterparts ¹⁷	10,000	-	-	-
7. General Operating and Other Direct Costs ¹⁸	211,125	14,864	-	34,864
Total Direct Costs	373,675	280,374	280,530	934,579
8. Indirect support costs (Max. 7% of overall budget) ¹⁹	26,157	19,626	19,637	65,421
TOTAL	399,832	300,000	300,168	1,000,000
Please indicate which organisation will receive pre-financing facility ²⁰	FAO lead and coordinated, and WHO and OIE contributed to the project development process			None

¹² 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.

¹³ 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".

¹⁴ 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.

¹⁵ 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.

¹⁶ Travel: Includes staff and non-staff travel paid for by the organization directly related to a project.

¹⁷ 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.

¹⁸ 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.

¹⁹ Indirect Support Costs: (No definition provided).

²⁰ Max 25,000 USD fund can be used as pre-financing. More detailed information can be found in the guiding notes



**Food and Agriculture Organization
of the United Nations**

PROJECT DOCUMENT

Upon request from the Government of Ethiopia, represented by the Ministry of Agriculture, the Food and Agriculture Organization of the United Nations (FAO) will provide technical assistance for the following Project:

Project Title:	The Antimicrobials Resistance (AMR) Multi Partners Trust Fund (MPTF) Combatting the rising global threat of AMR through a One Health Approach Ethiopia
Project Symbol:	UNJP/ETH/112/UNJ

Upon signature of this project document by the duly authorized representatives of both parties, the project will be implemented in accordance with the background, rationale and management arrangements described herein.



Food and Agriculture Organization of the United Nations

General Legal Provisions applicable to FAO when participating in pass-through UN Joint Programmes and Multi-Partner Trust Funds

(FAO Annex to the UN Joint Programme Project Document)

1. These legal provisions set out the basic conditions under which FAO – in respect of the collaborative spirit of this UN joint programme or multi-partner trust fund (hereinafter referred to as the Project) - will assist the Government in the implementation of the Project. The achievement of the objectives set by the Project shall be the joint responsibility of the Government, FAO and participating UN agencies (where applicable).

FAO OBLIGATIONS

2. FAO will be responsible for the provision, with due diligence and efficiency, of assistance as provided in the Project Document. FAO and the Government will consult closely with respect to all aspects of the Project.

3. Assistance under the Project will be made available to the Government, or to such entity as provided in the Project, and will be furnished and received (i) in accordance with relevant decisions of the Governing Bodies of FAO, and with its constitutional and budgetary provisions; and (ii) subject to the receipt by FAO of the necessary contribution from the Resource Partner and the Administrative Agent. FAO will disburse the funds received from the Resource Partner through the Administrative Agent in accordance with its regulations, rules and policies. All financial accounts and statements will be expressed in United States Dollars and will be subject exclusively to the internal and external auditing procedures laid down in the financial regulations, rules and directives of FAO.

4. FAO's responsibilities regarding financial management and execution of the Project will be as stipulated in the Project Document. FAO may, in consultation with the Government and the other UN agencies (where applicable), implement project components through partners identified in accordance with FAO procedures. Such partners will have primary responsibility for delivering specific project outputs and activities to the Project in accordance with the partner's rules and regulations, and subject to monitoring and oversight, including audit, by FAO.

5. Assistance under the Project provided directly by FAO, including technical assistance services and/or oversight and monitoring services, will be carried out in accordance with FAO regulations, rules and policies, including on recruitment, travel, salaries, and emoluments of national and international personnel recruited by FAO, procurement of services, supplies and equipment, and subcontracting. The candidacies of senior international technical staff for recruitment by FAO will be submitted to the Government for clearance following FAO procedures.

6. Equipment procured by FAO will remain the property of FAO for the duration of the Project. The Government will provide safe custody of such equipment, which is entrusted to it prior to the end of the Project. The ultimate destination of equipment procured under this Project will be decided by FAO in consultation with the Government and the Resource Partner.

GOVERNMENT OBLIGATIONS

7. With a view to the rapid and efficient execution of the Project, the Government shall grant to FAO, its staff, and all other persons performing services on behalf of FAO, the necessary facilities including:

- i) the prompt issuance, free of charge, of any visas or permits required;
- ii) any permits necessary for the importation and, where appropriate, the subsequent exportation, of equipment, materials and supplies required for use in connection with the Project and exemption from the payment of all customs duties or other levies or charges relating to such importation or exportation;
- iii) exemption from the payment of any sales or other tax on local purchases of equipment, materials and supplies for use in connection with the project;
- iv) any permits necessary for the importation of property belonging to and intended for the personal use of FAO staff or of other persons performing services on behalf of FAO, and for the subsequent exportation of such property; and
- v) prompt customs clearance of the equipment, materials, supplies and property referred to in subparagraphs (ii) and (iv).

8. The Government will apply to FAO, its property, funds and assets, its officials and all the persons performing services on its behalf in connection with the Project: (i) the provisions of the Convention on Privileges and Immunities of the Specialized Agencies; and (ii) the United Nations currency exchange rate. The persons performing services on behalf of FAO will include any organization, firm or other entity, which FAO may designate to take part in the execution of the Project.

9. The Government will be responsible for dealing with any claims which may be brought by third parties against FAO, its personnel or other persons performing services on its behalf, in connection with the Project, and will hold them harmless in respect to any claim or liability arising in connection with the Project, except when it is agreed by the Government and FAO that such claims arise from gross negligence or wilful misconduct of such persons.

10. The Government will be responsible for the recruitment, salaries, emoluments and social security measures of its own national staff assigned to the project. The Government will also provide, as and when required for the Project, the facilities and supplies indicated in the Project Document. The Government will grant FAO staff, the Resource Partner and the Administrative Agent and persons acting on their behalf, access to the project offices and sites and to any material or documentation relating to the Project, and will provide any relevant information to such staff or persons.

REPORTING AND EVALUATION

11. FAO will report to the Government (and to the Resource Partner) as scheduled in the Project Document.

12. The Government will agree to the dissemination by FAO of information such as project descriptions and objectives and results, for the purpose of informing or educating the public. Patent rights, copyright, and any other intellectual property rights over any material or discoveries resulting from FAO assistance under this Project will belong to FAO. FAO hereby grants to the Government a non-exclusive royalty-free license to use, publish, translate and distribute, privately or publicly, any such material or discoveries within the country for non-commercial purposes. In the presence of multiple UN implementing agencies, patent rights, copyright, and any other intellectual property rights, including the granting of any license thereof, will be jointly agreed among them in writing. In accordance with requirements of some donors of UN joint programmes or multi-partner trust funds, FAO reserves the right to place information and reports in the public domain.

13. The Project will be subject to independent evaluation according to the arrangements agreed between the Government, FAO and the other UN agencies (where applicable). The evaluation report will be publicly accessible, in accordance with the applicable policies, along with the Management Response. FAO is authorized to prepare a brief summary of the report for the purpose of broad dissemination of its main findings, issues, lessons and recommendations as well as to make judicious use of the report as an input to evaluation synthesis studies.

FINAL PROVISIONS

14. Any dispute or controversy arising out of or in connection with the Project or these legal provisions will be amicably settled through consultations, or through such other means as agreed between the Government and FAO.

15. Nothing in or related to any provision in these legal provisions or document or activity of the Project shall be deemed: (i) a waiver of the privileges and immunities of FAO; (ii) the acceptance by FAO of the applicability of the laws of any country to FAO; and (iii) the acceptance by FAO of the jurisdiction of the courts of any country over disputes arising from assistance activities under the Project.

16. These legal provisions may be amended or terminated by mutual written consent. Termination will take effect sixty days after receipt by either party of written notice from the other party. In the event of termination, the obligations assumed by the parties under these legal provisions will survive its termination to the extent necessary to permit the orderly conclusion of activities, and the withdrawal of personnel, funds and property of FAO.

17. These legal provisions will enter into force upon signature by the duly authorized representatives of the Government and FAO.

On behalf of:
Ministry of Agriculture

On behalf of:
**Food and Agriculture Organization of the
United Nations**

Name:

Name: **Fatouma Djama Seid**

Title:

Title: **FAO Representative to Ethiopia**

Date:

Date:

On behalf of:

The Ministry of Finance

Name:

Title:

Date: