

The Antimicrobial Resistance (AMR) MULTI-PARTNER TRUST FUND

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

INDONESIA

Full proposal overview

Country	<i>Indonesia</i>
Project title	AMR MPTF: Combating AMR in Indonesia through multi-sectoral approaches to infection reduction and improved stewardship
Implementing entities	FAO, OIE and WHO NB: HQ state - Tripartite agencies involved, including other UN organizations or partners
Timeframe	24 months – (1st January 2021 - 30th December 2022)
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Other Implementing Partners	<ul style="list-style-type: none">- <i>Ministry of Health</i>- <i>Ministry of Agriculture</i>- <i>National Agency for Drug and Food Control</i>- <i>Ministry of Marine Affairs and Fisheries</i>- <i>Ministry of Environment and Forestry</i>- <i>National Antimicrobial Resistance Control Committee</i>

- Local Governments
- Associations (Indonesian Medical Association, Indonesian Veterinary Medical Association, Indonesian Pharmacists Association, Poultry Farmers Associations, Indonesian Animal Drug Producers Association, Indonesian Hospitals Association),
- Civil Society Organisations (YOP, BARA, CIVAS)
- Private Sector (Poultry farmers, Poultry companies)
- Academia (IPB University, Gadjah Mada University, Hasanuddin University, University of Indonesia, Airlangga University, Lampung University)

Budget

Total amount (USD) based on budget summary in Annex **1,000,000**

Total amount (USD) allocated to each Tripartite partner **339,753(FAO)/ 173,048 (OIE)/ 487,199 (WHO)**

Context and rationale and how this intervention will contribute to MPTF and NAP objectives.

This section should include the following information:

- Describe the national AMR situation, including which sectors are important for AMR and why. It should also detail how they have been involved in the response to date (National AMR Program in Indonesia)
 - Indonesia suffers a high burden of infectious diseases especially due to malaria, tuberculosis (TB), and HIV/AIDS (Balitbangkes 2019). Malaria incidence per 1,000 at risk was 5.80 in 2018 and the disease is responsible for 10,000 deaths each year in Indonesia (CDC 2016). Indonesia has the third highest burden of TB in the world, behind India and almost equal to China. WHO estimated that there were 845,000 cases of TB in 2018, and 93,000 deaths (WHO 2019). New HIV infection per 1,000 uninfected population was 0.19 in 2017 (WHO 2017). In 2018, there were an estimated 650,000 people living with HIV/AIDS (PLHIV) in Indonesia.
 - As a major hub for international travel and trade as well as close interaction between animals and humans, the country is also at risk for emerging infectious diseases (EID).
 - The (Asia Pacific) Regional Resistance Surveillance (RRS) Program, upon analysing the hospital-based data managed by SENTRY Antimicrobial Surveillance Program and sampling from several countries (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3811293/>), has identified that Indonesia has higher Extended Spectrum Beta Lactamase (ESBL) producing *E. coli* at 71% compared to the regional level of other Asia Pacific countries (48%). ESBL producing *Klebsiella* prevalence in Indonesia is 64% compared to the observed regional average (47%) (Mendes RE, et al. 2013). The analysis focused on the identification and quantification of the level of resistance to commonly used, generally older, cost-

Background

effective antimicrobials in 14 Asian countries (Mendes RE, et al. 2013).

- Within the last decade, the occurrence of Carbapenem Resistant *Enterobacteriaceae* (CRE) has become an increasing threat to public health. Indonesia is the most affected among Asian countries with the highest resistance (5.8%), followed by Vietnam (3.0%) and the Philippines (2.6%) (Xu Y, et al. 2015).
 - In the animal health sector, an AMR study conducted in Indonesia showed that 91% of *E. coli* isolated from broiler chickens' caeca were resistant to at least two antibiotics and more than 50% of isolates were resistant to all antibiotics tested - ampicillin, tetracycline, sulfamethoxazole-trimethoprim, enrofloxacin, and gentamicin (Purwanto et al 2019). In addition, another report by Yulistiani et al 2016 revealed that 36% of *E. coli* isolated from broiler meat exhibited Multiple Drug Resistance (MDR) to tetracycline, gentamicin, ceftiofur, sulfamethoxazole /sulfamethizole, nalidixic acid, and chloramphenicol. The high incidence of MDR in *E. coli* isolates in this study may have been caused by the improper use of antibiotics as a disease preventive measure and by excessive antibiotic treatment of broilers. According to the results of antimicrobial use (AMU) surveys conducted by the Directorate General of Livestock and Animal Health Services (DGLAHS) and FAO in 2017 and 2018, most broiler farmers used antibiotics for disease prophylaxis (81%) and treatment (35%). Whereas, less than 0.5% of surveyed farmers used antibiotics as a growth promoter.
- *What has the national response been to date, what are the priority sectors and value chain in the National Action Plan for AMR? (National AMR response and involvement of priority sectors)*
 - The Ministry of Health (MoH) established the National AMR Control Committee in 2015 to coordinate all AMR activities within departments in the human health sector including professional organizations.
 - The Ministry of Agriculture (MoA) issued Law No. 18/2009, Law No. 41/2014 and MoA regulation No. 14/2017, on Veterinary Drug Classification, which prohibits the use of antimicrobials for growth promotion (AGP) and prohibits the use of antibiotics without a veterinarian's prescription.
 - The government developed a multi-sectoral National Action Plan (NAP) on AMR 2017-2019, which was a collaborative effort between MoH, MoA, the National Agency for Drug and Food Control (NADFC), Ministry of Marine Affairs and Fisheries (MoMAF), Ministry of Environment and Forestry (MoEF), National AMR Control Committee, and Professional Organizations. The AMR National Action Plan (NAP) has recently been updated and costed for 2020-2024, linking to wider sectoral plans. The presence of a costed multi-sectoral NAP is a clear demonstration

of government's strong commitment to take actions to prevent further development and spread of AMR and mitigate the impact of AMR on human, animal, and environmental health as well as on the economy. As the Government is overwhelmed with COVID-19 pandemic since the beginning of this year, the NAP is still in process to be endorsed.

- Presidential Instruction No.4 / 2019 supports the development of a fully functional cross-sectoral coordination mechanism for AMR control, which also demonstrates strong commitment of the Indonesian government to ensure implementation of an integrated AMR approach through partnership of several sectors.
 - Priority sectors in the AMR programme are:
 - a. Human health
 - b. Animal health
 - c. Aquaculture health
 - d. Environment health
 - e. Plant health
- *What have the main achievements been to date for AMR control in the country? What are the main gaps?*
 - **One Health**
 - **Achievements:**
 1. The Global Integrated Survey on ESBL producing *E. coli*, or the Tricycle Project, started in November 2018 with the aim to strengthen the antimicrobial resistance (AMR) surveillance system globally/in Indonesia and promote integrated surveillance across human, animal and environment sectors using the One Health approach.
 2. The multi-sectoral NAP-AMR (2020-2024) has been developed and the final document is available. This NAP-AMR is more advanced than the previous one, as it has been properly costed and includes an additional Strategic Objective (number 6) outlining governance and multi-sectoral coordination.
 - **Main Gaps:**

Each affiliated ministry / institution has their own program to control AMR, however, there are still limited AMR activities carried out using the one health approach. This is because there is still a lack of mechanisms to regulate cross-sectoral coordination of national AMR control. The AMR NAP (2017-2019) recommended the establishment of a National Antimicrobial Resistance Control Committee (NARCC) as the National Coordination Center for AMR control, but the cross-sectoral coordination mechanism has not been established.
 - **Human Health Sector:**
 - **Achievements:**
 1. A national AMR surveillance platform and mechanism (National Coordination Center (NCC), National reference Laboratory (NRL) and Sentinel Sites) was established in 2019. National capacity

was established and expanded on AMR surveillance systems including enrolment and contribution of data to the Global Antimicrobial Resistance Surveillance System (GLASS) in 2019 and implementation of the microbiology laboratory database platform WHOnet and the building of a data collection system.

2. Guidelines on Antibiotic use adopting the WHO AWaRe (Access, Watch, Reserve) classification to reduce the spread of AMR, antibiotic-related adverse events, and contain drug costs was developed and discussed by related stakeholders and reviewed by the NARCC, professional organizations and academia. These guidelines are expected to be endorsed through a decree by the Minister of Health.

3. Main Gaps:

- Inappropriate antimicrobial prescribing by health professionals is still high; weak implementation of antimicrobial stewardship (AMS) practices.
- Over the counter sales of antibiotics is prevalent and drug regulatory authority inspection/ enforcement need to be strengthened.
- Suboptimal implementation of infection prevention and control (IPC) measures and IPC activities in health care facilities; inadequate monitoring and analysis of IPC related data.
- Limited implementation of Water, Sanitation and Hygiene (WASH) in health care facilities.

- **Animal Health Sector**

- **Achievements:**

1. There has been an increase in awareness of stakeholders in veterinary education institutions with the commitment of the Indonesian veterinary faculties association to enrich the existing curricula by strengthening information and knowledge about AMR and AMU for students.
2. The Directorate General of Livestock and Animal Health Services (DGLAHS) issued a circular letter on the prohibition of colistin use after July 2020.
3. The DGLAHS has been submitting Indonesia's AMU data for the animal sector to the OIE since 2015, which represents the annual consumption of antimicrobials used in terrestrial and aquatic animals.
4. In terms of providing AMR data for intervention measures, the animal health sector has established a national AMR surveillance system for the general broiler poultry population. That system has already been used by nine veterinary laboratories, while the Center for Quality Testing and Certification of Animal Products (BPMSPH) was assigned as the AMR reference laboratory in the animal health sector.

- **Main Gaps:**

1. Widespread and high use of antibiotics in poultry farms for prophylactic purposes.
 2. Poor IPC management practices on farms.
 3. Insufficient number of veterinary professionals in provinces and districts.
 4. Lack of knowledge of farmers on antimicrobial use and antimicrobial resistance.
- *Relation of the AMR programme to national planning and policy instruments and strategy (e.g. health sector strategy, One Health strategic framework).*

In the health sector, the government's priority is to reduce maternal mortality through the provision of Universal Health Coverage (UHC) as reflected in the Mid-term National Development Plan 2020-2024 (RPJMN). This implies significant increases in access to healthcare, including access to prevention and treatment services for infections and ensuring successful treatment of infections with effective and safe medicines that are quality assured.

The AMR programme contributes significantly to ensuring successful treatment through promoting rational use of antimicrobials, reducing the incidence of infection through prevention measures such as improved sanitation, hygiene, and infection prevention and control, raising awareness as well as building integrated governance and coordination in AMR control. The proposed activities align with the NAP's strategic objectives 1, 3, and 4, and support the continuity of successful treatment and prevention of infectious diseases in humans and animals. This will ultimately reduce maternal mortality through the provision of UHC as stated in the RPJMN.

The AMR control program in the animal health sector has a legal basis with Law No. 8/2009 governing the prohibition of the use of feed mixed with certain hormones and / or antibiotic feed additives. Ministry of Agriculture Regulation No 14/2017 prohibits the use of certain animal drugs in livestock whose products are for human consumption, and which could potentially endanger human health. The AMR control program has been included in the Strategic Plan of the Directorate General of Livestock and Animal Health Services as a reference / basis for the government to prepare activities and budget allocations related to AMR control in the animal health sector.

The proposed actions and initiatives will respond to and address the key AMR recommendations of the Indonesia Joint External Evaluation (JEE). All activities detailed in this proposal are aligned with government priorities and their national and international commitments.

Indonesia has developed its National Action Plan on Health Security (NAPHS) 2020-2024 with the whole-of-government and One Health approach; AMR is one of the components of the

NAPHS. It is expected that well-implemented AMR control activities will contribute to acceleration of IHR core capacities.

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

- A multi-sectoral National Action Plan (NAP) on AMR 2020-2024 using a One Health Approach has been developed. The NAP is in the process of endorsement by Ministries.
- A joint AMR awareness raising and education campaign through seminars for students of veterinary medicine, medicine, pharmacy, and animal husbandry faculties was conducted to improve the understanding and awareness of the prudent and rational use of antibiotics in humans and animals. These seminars have been implemented with all 11 Indonesian veterinary faculties over the past three years.
- An integrated survey of ESBL-producing *E. coli* (Tricycle project) was conducted to strengthen the antimicrobial resistance surveillance system in Indonesia and promote integrated surveillance in the human, animal and environment sectors using the One Health approach, which involved the MoH National Institute for Health Research and Development (NIHRD), the MoA Disease Investigation Centre (DIC) Subang and the MoEF Center for Research and Environment Laboratory, Serpong.
- Over the last 12 months, the Tripartite has been working with laboratories from Ministry of Agriculture, Ministry of Health and Ministry of Environment and Forestry in Indonesia on EpiX – an expanded epidemiological study design of Integrated Global Survey on ESBL-producing *E. coli* using a "One Health" approach – “The Tricycle Project”.

- *How have the Tripartite organisations supported this work, and what work is ongoing? Is AMR incorporated in the strategic frameworks of each organisation?*

FAO, OIE and WHO have supported government AMR programmes in each sector through mainly providing technical assistance as well as financial support. WHO supported the Integrated Survey of ESBL-producing *E. coli* (Tricycle project) in collaboration with FAO, by mobilizing technical expertise from Headquarters and regional offices. WHO and FAO also supported the development of a multi-sectoral National Action Plan (NAP) on AMR 2020-2024 using a One Health approach. WHO provided technical assistance to cost the plan.

- AMR has been included in the global action plan 2016-2020 and regional direction for AMR control 2017-2020, which are the

references for FAO countries to develop multi-sectoral National Action Plans together with WHO, OIE and relevant ministries and institutions. Since 2016 until now FAO has focused on AMR-related activities such as raising awareness and understanding, building national capacity in AMR surveillance in the animal health sector, strengthening disease prevention and control activities through the 3-zone farm biosecurity program, proper poultry vaccination and good farming practices, and encouraging the optimized use of antibiotics through the development of AMU and AMS guidelines. Therefore, AMR control has become one of the priority activities of FAO animal health programs, in addition to strengthening laboratories and surveillance, improving the quality of emerging infectious disease (EID) and zoonotic disease control using the One Health approach, as well as improving poultry health, poultry production and the capacity of stakeholders along poultry value chains.

In 2014, antimicrobial resistance was identified as a WHO Regional Flagship Priority. The WHO Thirteenth General Programme of Work also targets tackling antimicrobial resistance to contribute to the goal of a healthier population: 1 billion more people enjoying better health and well-being, which is one of WHO's triple billion objectives. After the Jaipur Declaration on Antimicrobial Resistance in 2011, the WHO Regional Committee for South-East Asia adopted a resolution on antimicrobial resistance for reporting progress and assessing regional achievements and challenges. In May 2015, the World Health Assembly adopted the Global Action Plan (GAP) on antimicrobial resistance. The Seventy-second World Health Assembly in May 2019 adopted the resolution on antimicrobial resistance that reiterated global agreement on combating AMR with continued high-level political commitment. AMR is complicated to assess, as it corresponds to a range of combinations involving clinical conditions, antibiotics, etiological agents and locations. The WHO country office supported MoH to successfully enrol in GLASS. WHO facilitated the establishment of a national AMR surveillance platform including National Coordination Centre, National Reference Laboratory and Sentinel Sites and mechanism; and supported capacity building of the national team on AMR surveillance systems. Indonesia successfully participated and contributed AMR data to the GLASS secretariat.

- As the global international standard setting organisation, the OIE, through its Codes has established standards for harmonisation of national AMR surveillance; monitoring of usage of antimicrobials in food-producing animals; risk analysis

for AMR arising from the use of antimicrobial agents in animals; and responsible/prudent use of antimicrobials. The OIE Strategy on Antimicrobial Resistance and the Prudent Use of Antimicrobials launched in 2016, outlines the key strategies and objectives to address AMR by the veterinary services using a one health approach. The OIE organised an AMU monitoring workshop and a seminar on AMR for Veterinary Education Establishments in Indonesia in February 2020 to support enhanced monitoring of antimicrobials used in animals and advocate prudent and responsible use by all stakeholders. In addition, OIE also has supported translation of OIE communication materials on AMR targeting World Antibiotics Awareness Week (WAAW) activities in 2019.

- *Is AMR included in the UN Sustainable Development Cooperation Framework¹? If not, is there scope to facilitate this through this programme?*

AMR is not included in the *UN Sustainable Development Cooperation Framework*.

AMR is not included in the Government of Indonesia (GOI) – United Nations Partnership for Development Framework. However, there is scope to facilitate the AMR program through contributions to the 2030 sustainable development agenda. AMR contributes to the Sustainable Development Goals (SDG) -1 (No Poverty), SDG-3 (zero hunger), SDG-3 (good health and well-being), SDG-8 (Decent work and economic growth) and SDG -10 (Reduced inequalities).

- *Brief summary of other actors present in AMR related initiatives in the country (e.g. donor supported action)?*
 - Australia Indonesia Health Security Program
The Australian Department of Foreign Affairs and Trade (DFAT) has developed a joint package of activities which include the Australia Indonesia Health Security Partnership (AIHSP) design as well as support for implementation of selected activities under the Indo-Pacific Health Security Initiative that has been implemented since July 2019 and is expected to be continued until at least June 2024. The program has both animal and human health arms, which work together under a One Health approach.
 - Fleming Fund

¹ UN Sustainable Development Cooperation Framework <https://unsdg.un.org/resources/united-nations-sustainable-development-cooperation-framework-guidance>

Fleming Fund Country Grants under Mott MacDonald management provide three main investments to Indonesia i.e. strengthening Multi-sectoral One Health AMR and AMU surveillance, strengthening AMR and AMU surveillance in poultry and aquaculture that will be implemented within an initial 2 years and may be extended.

- *When was the National Action Plan for AMR developed?*

Development of the first NAP for AMR in Indonesia was initiated in December 2016, which was based on the AMR situational analysis exercise that was held by WHO SEARO and NARCC in May 2016. In May 2017, the AMR NAP 2017-2019 was developed by a multi sectoral ministerial group (Ministry of Health, Ministry of Agriculture, Ministry of Marine Affairs and Fisheries, Ministry of Finance, and Ministry of Defence) together with development partners (WHO and FAO).

The NAP on AMR 2020-2024 is a continuation and expansion of 2017-2019 NAP activities. The evaluation of the NAP for AMR 2017-2019 took place in May 2019 and many multi sectoral ministries and institutions participated in this evaluation. The development of the NAP 2020-2024 was completed in December 2019 and is currently being reviewed by the Minister of Health for further political endorsement.

Status of National Action Plan for AMR

The multi-sectoral NAP 2020-2024 was jointly developed by MoH, MoA, MoMAF, *National Agency for Drug and Food Control*, MoEF, NGOs, professional organizations, academics and other partners. The active participation of this range of stakeholders built a sense of responsibility and ownership in the plan and an understanding of the need for transparency.

The goals of the plan are to minimize the occurrence and the distribution of resistant micro-organisms, to ensure the availability of safe, effective, high quality, and affordable antimicrobials, and to use antimicrobials in a responsible way.

The plan has six strategic objectives:

1. to improve awareness and understanding of antimicrobial resistance through effective communication, education, and training;
2. to increase the knowledge and evidence base through surveillance and research;
3. to reduce the incidence of infection through sanitation, hygiene, and infection prevention and control actions;
4. to optimize antimicrobial usage in humans, animals, and fish;
5. to build investment to find treatment procedures, diagnostic methods, and new vaccines in order to reduce the developing antimicrobial resistance problem;

6. to build integrated governance and coordination in antimicrobial resistance control.

- *When was the last progress report?*

The multi-sectoral NAP 2017-2019 was evaluated by the relevant ministries and institutions in May 2019, resulting in recommendations for the development of NAP 2020-2024.

- *Are there plans to refresh the NAP (if so when and over what time frame)?*

The NAP has already been updated with the second NAP covering the 2020-2024 period

- *How often does the AMR coordination committee meet?*

There were two meetings conducted by MoH and the AMR control Committee in 2018. Difficulty to find time for key stakeholders prevented more frequent meetings to monitor progress of programme implementation and coordinated action. Several multi-sectoral coordination meetings on AMR were carried out to prepare the 2017-2019 AMR NAP and the 2020-2024 AMR NAP. Tripartite country self-assessment survey meetings were also organised. In the National Action Plan 2020-2024 a National level multisector management mechanism is to be established to improve activities coordination amongst all sectors. A minimum of two National meetings will be held each year with at least four meetings conducted in each sector annually.

- *Which sectors are actively engaged in the committee?*

The NAP covers four main sectors:

- *Health Sector: Ministry of Health (MoH), and National Agency of Drug and Food Control (NADFC)*
- *Animal and Plant Health Sector: Ministry of Agriculture (MoA) and Food Security Agency (BKP)*
- *Fish Health Sector: Ministry of Marine Affairs and Fisheries (MoMAF)*
- *Environment Sector: Ministry of Environment and Forestry (MoEF).*

Coordination activity usually is facilitated by the Coordinating Ministry which represents sector ministries as follows:

The Coordinating Ministry for Human Development and Cultural Affairs (CMHDCA) coordinates on behalf of MoH, Ministry of Research and Technology (MoRT), and the Ministry of Education and Culture (MoEC)

- *To which entity does the AMR national coordination committee report?*

The reporting line and responsibilities of the National AMR coordination committee are currently under consultation with the higher levels of government.

- *Is the private sector involved?*

The private sector is not formally involved, but they are closely involved in the implementation of AMR activities especially in awareness raising, implementation of best practices, and surveillance activities.

- *Is civil society involved?*

Civil society is not formally involved, but they are involved in the implementation of AMR activities especially awareness raising and surveillance.

- *Is academia involved?*

Yes, Airlangga University, IPB University, Gajah Mada University, and University of Indonesia are involved mainly in AMR surveillance, capacity building and research.

The NAP acknowledges the importance of the private sector in AMR mitigation. It makes frequent reference to the involvement of private sectors, professional organizations and CSO's as well as academia as active partners for many of the specific activities listed. They were also active partners during the consultation process to develop the NAP.

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

WHO supported the development the first multi-sectoral National Action Plan (NAP) for AMR 2017-2019 using a One Health approach and assisted in revision of the NAP for AMR 2020-2024. WHO provides ongoing direct technical and material support to national coordination of activities outlined in the NAP and to the activities themselves.

FAO supported the cross-ministry One Health Seminar on AMR in March 2017 and issuing the *Joint Communique on the Implementation of the One Health Approach in Indonesia with special emphasis on Antimicrobial Resistance*. The *Communique* commits signatories to address the major threat of AMR and urgent problem of inappropriate antimicrobial usage in people and food production, through strengthened regulatory frameworks, and commitment of adequate financing and human resources to national AMR control programmes. It also committed to support development and evaluation of the 2017-2019 NAP for AMR.

The OIE through its OIE Delegate, the Director General, DGLAHS, MoA, organised the AMU Monitoring Workshop in February 2020 wherein all

relevant stakeholders including representatives from MoA, MoH, academia, private sectors, and tripartite partners were invited to brainstorm on the animal sector AMU supply chain, as well as review NAP implementation in the animal sector. This multi-sectoral workshop has further strengthened coordination amongst the key stakeholders in implementing the NAP in Indonesia. OIE has trained the Veterinary Products and AMR focal point at regular intervals through regional focal point training to enhance the capacity of the veterinary service to support effective implementation of the NAP at country level.

WHO, FAO, and OIE, contributed and supported monitoring of the implementation of the multi-sectoral NAP for AMR through inter-ministries coordination meetings conducted by the MoH and the human health AMR control committee.

Project Summary

Impact

Antimicrobial Use (AMU) behaviours and practices sustainably improved across all critical sectors

Outcome(s)

- Use of antimicrobials optimized in critical sectors
- Improved understanding of AMR risks and response options by targeted groups (Increased comprehensiveness and quality of the policy dialogue and practice)

Summary of the selected Outputs from the Tripartite AMR Results Matrix
Summary of prioritised Activities from the concept note submission

Outputs and key activities

1. Systems for biosecurity and IPC strengthened in critical sectors
 - a. Joint review of infection prevention and control (IPC/biosecurity – including WASH) in human and animal sectors in pilot areas;
 - b. Develop and pilot implementation of IPC initiatives in healthcare facilities and farming systems using complementary parallel approaches on WASH, AgriWASH, IPC, and farm biosecurity.
2. System for optimized use of antimicrobials strengthened in critical human and animal sectors
 - a. Joint review of Antimicrobial Stewardship (AMS) practices in humans and animals in pilot areas;
 - b. Develop Antimicrobial Stewardship guidelines for human and animal health;
 - c. Develop standard treatment guidelines and a user-friendly application (for both human and animal health) using the AWaRe classification for health care professionals and veterinarians/para-veterinarians;

- d. Create a coordination mechanism for monitoring and inspection of antimicrobial use in human and animal health;
- e. Jointly assess implementation of AMU stewardship in selected farms and communities through Knowledge Attitude Practices (KAP) Survey towards the end of the project.

- 3. Implement engagement plans with critical stakeholder groups
 - a. Develop monitoring and evaluation (M&E) plans for NAP implementation in pilot areas;
 - b. Develop communication and advocacy strategy for engagement with key stakeholders (farmers, veterinarians, food sectors, pharmaceutical manufacturers and sellers, investors and development partners, civil society, and academia)

Paragraph summarizing the expected contribution to the achievement and indicating relevant objectives of National action plan

Because of its acknowledged progress in planning action on AMR, Indonesia is receiving assistance from the Fleming Fund to strengthen surveillance capacity; consequently, this proposal will focus on activities that complement Fleming Fund-supported activities and focus on reducing infection risk and optimizing antimicrobial use through improved stewardship. This proposal also supports activities relating to NAP monitoring and national stakeholder engagement.

The expected outcomes of this proposed project support the following NAP Strategic Objectives:

- 1. improve awareness and understanding of antimicrobial resistance through effective communication, education, and training;
- 2. reduce the incidence of infection through sanitation, hygiene, and infection prevention and control; and
- 3. optimize antimicrobial use in humans, animals, fish, and plants.

The proposed activities also address some of the areas for improvement identified by the Joint External Evaluation (2017) including:

- 1. monitoring of implementation of IPC programmes should be strengthened;
- 2. increases are required in the number of health workers trained on IPC;
- 3. IPC guidelines in the animal sector require strengthening;
- 4. lack of understanding in health workers and the public of the importance of sanitation/ hygiene in preventing the spread of infection due to AMR.

Link to National Action plan

FAO and WHO offices in Indonesia, and the OIE Sub-Regional Representation in Bangkok would lead the implementation of animal and human health components of the MPTF grant, working in partnership with the Ministry of Health (MoH), Ministry of Agriculture (MoA), Ministry of Marine Affairs and Fisheries (MoMAF), Ministry of Environment and Forestry (MoEF) and the private sector. WHO would work with key human health sector partners (National AMR Control Committee, National Agency for Drug and Food Control, MoH Directorate of Referral Health Service, Directorate of Pharmaceutical Service, and the MoH Center for Research and Development for Biomedical and Basic Health Technology, and others). FAO and OIE would work with key animal health sector partners (MoA Directorate General of Livestock and Animal Health Services, especially the Directorate of Animal Health, poultry farmers' associations, the commercial poultry industry and the Indonesian Veterinary Medical Association).

Government of Indonesia has published the Mid Term National Development Plan (RPJMN) 2020-2024 as the final input to the long term National Development Plan (RPJPN) 2005-2025; this is a very important stage because it will affect the achievement of development targets in the RPJPN. The RPJMN 2020-2024 has been mainstreamed and aligned with the Sustainable Development Goals (SDGs). Achieving the targets of the 17 Sustainable Development Goals (SDGs) and its indicators have become an integral part of Indonesia's development agenda, including health. The MOH's recent situational analysis highlighted sub-optimal provision of services and low implementation of the AMR control programme in referral hospitals as contributing factors to AMR, resulting in the sub indicators below being added to the RPJMN:

- Percentage of national referral hospitals that conduct AMR surveillance in accordance with standards;
- Number of national referral hospitals that have and implement hospital guidelines on antimicrobial use according to standards.

Link to country's development priorities

The MPTF proposed activities will link and contribute to the National Action Plan on Health Security (NAPHS) 2020-2024 particularly to achieve AMR targets a and c. Support work is being coordinated by FAO, OIE and, WHO to develop an integrated global package of activities to combat antimicrobial resistance, spanning human, animal, agricultural, food and environmental aspects i.e. a One Health approach, including: a) Indonesia has its own national action plan on AMR; b) Strengthened surveillance and laboratory capacity at the national and international level following agreed international standards developed within the framework of the Global Action plan, considering existing standards; and c) Improved conservation of existing treatments and collaboration to support the sustainable development of new antibiotics, alternative treatments, preventive measures and rapid, point-of-care diagnostics, including systems to conserve new antibiotics.

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

Name FAO Country representative	Victor Mol	[Redacted]
Name Regional Representative OIE	Dr Hirofumi Kugita	[Redacted]
Name WHO Representative	Dr Navaratnasam	[Redacted]

Joint Programme Description

1. Baseline and situation analysis

1.1 Problem statement (max 1 page)

Explain the problem to be addressed. 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. Draw on relevant analysis and information from national and international sources.

Insufficient support for and attention paid to Antimicrobial Stewardship (AMS)

Antimicrobial Stewardship guidelines are not yet available for human and animal health. There is also a need to develop standard treatment guidelines and a user-friendly application that can assist health care professionals and veterinarians/para-veterinarians in making treatment decisions using the AWaRe classification, both in the human and animal health sectors. In addition, the decentralized system in Indonesian poses challenges for AMS, primarily related to coordination and collaboration. Education on antibiotic use also needs to be addressed at the communities, healthcare facilities and pharmacies level so that patient demand can be rationally countered, and appropriate drugs dispensed only under prescription. Frequent monitoring and feedback on AMS are needed to produce significant improvements in practice.

Insufficient implementation of IPC/biosecurity

Implementation of Infection Prevention and Control (IPC) measures in healthcare facilities and the animal sector is suboptimal. In the human health sector, IPC monitoring is not associated with hospital or clinic accreditation systems. There are challenges in developing and implementing IPC guidelines in healthcare facilities due to varying facility infrastructure (PPE, WASH) and lack of uniform IPC training. This lack of robust IPC in healthcare facilities is coupled with inadequate surveillance of healthcare-associated infections (HCAI). These factors, in the context of Indonesia's burden of TB and potential for EIDs, result in an urgent need for improving IPC, and HCAI, including monitoring and evaluation, to reduce AMR infections and identify and respond to AMR events. Equally, implementation monitoring and evaluation of IPC/biosecurity is not part of veterinary service facilities procedures, nor part of the animal-based food product chain.

Lack of prevention measures and professional oversight

In the animal health sector, monitoring systems for antimicrobials distribution and antimicrobial use through veterinary prescription are not in place. Many antimicrobials are still administered without a veterinarian's prescription. Several antimicrobials, classified as the highest prioritized Critically Important Antimicrobials (CIA) for human medicine, such as colistin and fluoroquinolones, are routinely used in animal production and aquaculture. These types of antimicrobials should be reserved as treatments of last resort.

Furthermore, there is a lack of professional capacity in animal health services, primarily in the commercial poultry sector. Veterinarians or field extension officers (government officials working with farmers) do not have adequate diagnostic tools, infrastructure, and skills to implement antimicrobial stewardship practices along the value chain.

Furthermore, there are still many poultry farms, mainly small-scale traditionally managed farms, which do not apply proper on-farm biosecurity practices. This is due to the limited knowledge of farmers on good farming practices, prudent antibiotic treatment programs, and antimicrobial resistance. Examples of antimicrobials misuse in poultry farms include the administration of double-dose antimicrobials, no rotation of the antimicrobials class, lack of compliance with label dosage recommendations, and not following antimicrobials administration procedures.

How to address the challenges:

The Tripartite together with GOI counterparts must make efforts to increase health workers, vets/paravets and farmers' understanding of antimicrobials and their use, improve knowledge of Infection Prevention and Control measures/biosecurity, as well as the likely impact of these measures on AMR occurrence. Strengthening the understanding and knowledge of health care workers, vets/paravets and farmers, who may not fully understand AMR impact, can change their behaviour and be a success story for all involved. In addition, increasing public awareness of the dangers of AMR, such as the campaign to produce healthy livestock products for human consumption is very important to encourage farmers to adopt appropriate antimicrobial treatment practices on farms.

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

List the Outcome(s), Output(s) adopted from Tripartite Results Matrix (Appendix 3) and Activities that are designed with the focus of this joint Tripartite programme and identify indicators and baseline data that can be used to measure programme progress.

• **Outcome A: Use of antimicrobials optimized in critical sectors**

- Output a: Systems for biosecurity and IPC strengthened in targeted countries

Activities:

1. Joint review of infection prevention and control (IPC – including WASH and AgriWASH) in human and animal sectors in pilot areas
2. Develop and pilot implementation of IPC initiatives in healthcare facilities and farming systems using complementary parallel approaches on WASH, AgriWASH, IPC, and farm biosecurity

- Output b: System for optimized use strengthened in the critical sectors

Activities:

1. Joint review/assessment of Antimicrobial Stewardship (AMS) practices in humans and animals in pilot areas;
2. Develop Antimicrobial Stewardship guidelines for human and animal health;
3. Develop standard treatment guidelines and a user-friendly application (for both human and animal health) using the AWaRe classification for health care professionals and veterinarians/ veterinary paraprofessionals;
4. Create coordination mechanism for monitoring and inspection of antimicrobial use in human and animal health; and
5. Joint assessment of implementation of AMU stewardship in selected farms and communities through a Knowledge Attitude Practices (KAP) Survey towards the end of the project.

• **Outcome B: Improved understanding of AMR risks and response options by targeted groups**

- Output c: Engagement plans with critical stakeholder groups implemented

Activities:

1. Develop monitoring and evaluation plans for NAP implementation in pilot areas; and
2. Develop communication and advocacy strategy for engagement with key stakeholders (farmers, veterinarians, food sectors, pharmaceutical manufacturers and sellers, investors and development partners, civil society, academia).

1.3 Stakeholder mapping and target groups (max 2 pages)

Map key stakeholders and briefly explain their involvement in addressing AMR at national level. Focus particularly on stakeholders in areas that will be targeted by the AMR MPTF country grant, identifying their interest and relationships. Please also identify the programme beneficiaries where possible.

The proposed project would provide technical assistance opportunities on infection prevention and control (IPC)/biosecurity and Antimicrobial Stewardship (AMS) to:

- Central government (MoH, MoA, MoMAF, MoEF)
- Local government (Head of district, District Secretary, Health office, Animal Health office)
- Hospitals, veterinary hospitals and human/animal health centres
- Medical and veterinary practitioners
- Farmers and farm owners
- Civil society and non-governmental organisations
- Academia
- Communities

The central government, especially the Ministry of Health and the Ministry of Agriculture, is involved in providing regulations, guidelines and standards to stakeholders, building coordination / communication across sectors and improving stakeholders' capacity to control AMR nationally, and improve the implementation of IPC/biosecurity in both the human and animal health sectors. For AMU, the central government develops policies, legislation and licensing of drug importers and manufacturers, whereas local governments monitor AMU through licensing and monitoring of distributors, retailers and end-users.

Local governments play a role in coordinating and encouraging the involvement of key animal and human sector stakeholders in their administrative areas to implement AMR control activities, as well as providing local regulations and coordination between stakeholders.

Hospitals, veterinary hospitals and human/animal health centres are involved in AMR control in terms of implementing technical guidelines and standard operating procedures (SOPs) for health care workers, veterinarians, paramedics and paravets to use antibiotics prudently and rationally, as well as ensure the health of the environment surrounding health care facilities. They drive efforts to implement IPC/biosecurity and sustain hand hygiene infrastructure and practices and efforts to support adequate, routine cleaning practices and safe health care waste management.

Medical and veterinary practitioners are involved in AMR control through their commitment to reducing AMR by prudent and rational use of antibiotics.

Farmers and farm owners are involved in AMR control through the need for their commitment to prudent and responsible use of antibiotics, as prescribed by veterinarians.

Civil society and non-governmental organisations are involved in AMR control through their support for awareness building and support to communities to use antibiotics prudently and responsibly.

Academia are involved in AMR control through improving the curricula of medical, pharmacy, veterinary medicine, animal husbandry and fishery faculties to include IPC, AMR and prudent and rational use of antibiotics in all sectors.

Communities are involved in AMR control through commitment to using antibiotics prudently and responsibly as prescribed by medical authorities. This should be undertaken in an inclusive and collaborative process, bringing together local and the Tripartite perspectives and resources, enabling communities to shape the programme so that it works for them, which creates ownership and sustainability for the programme process, facilities and services.

2 Programme strategy

2.1 Overall strategy (max 2 pages)

Summarize the strategy of the joint Tripartite programme, including:

a) why it is transformational (will deliver results at scale);

The Tripartite will build on the work it has been conducting with the Government of Indonesia over some time and will continue to implement with the support of USAID, Fleming Fund and the Multi-Partner Trust Fund, as well as new development partners interested to support the Tripartite and the Indonesian government. FAO, OIE and WHO have worked nationally with the government before and have the experience and infrastructure in place to be able to do so under this project. This would include activities relating to field work, training, communication and monitoring and evaluation.

b) why it is better than alternative approaches;

This approach combines sector-specific technical expertise with the multi-sectoral cooperation and communication required for One Health approaches to be adapted and implemented. This combination of technical expertise and multi-sectoral experience will be maximised by (i) drawing on internal organizational experience at national, regional and global levels, but also by (ii) bringing in experience from partners in other countries in the region that will be able to demonstrate the feasibility and workability of approaches proposed. So, the Tripartite not only has a technical advisory role but also a role in facilitating inter-country exchange of experience and approaches.

This proposal sets out plans for areas of work that have been, to-date, comparatively neglected since the Global Action Plan was published. Much work has been done on surveillance, including work done by the Tripartite on projects like the ESBL *E. coli* Tricycle Project, which has collaborated together with Ministries of Health, Agriculture and Environment laboratories. Work related to Strategic Objective 3 on infection prevention and control has received less attention. This project seeks to address that, both in the human and the animal sectors.

c) how it contributes to accelerate the progress on achieving the NAP;

The NAP very closely responds to the Global Action Plan developed by the Tripartite in partnership with its Member States. The Tripartite has been reviewing NAPs across the region and been able to draw on best practice being adopted by different countries across the region. Whilst Indonesia is one of the leading implementing countries and the first in the region to formally approve an updated truly multi-sectoral NAP, there is much to be learned from other neighbouring countries and initiatives linked to ASEAN. This work seeks not only to develop activities but also to communicate and to monitor and evaluate the activities.

d) what will be the added value of the Tripartite;

All of this means that the Tripartite is in a unique position to work via a truly One Health approach with its partner ministries in Indonesia both for the duration of this project and, due to the on-going presence of FAO and WHO in Indonesia, into the longer term.

e) how it relates to AMR GAP priorities and initiatives;

This work is closely related to a few of the strategic objectives of AMR GAP. All the work on WASH (whole environment WASH, WASH and IPC in Health Care Facilities and AgriWASH) seeks to reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures (GAP Strategic Objective 3) and to improve awareness and understanding of antimicrobial resistance through effective communication, education and training (Strategic Objective 1).

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

The government has been consulted closely during the preparation of this proposal and are both interested and keen to implement. They are comfortable working with the Tripartite and the programme activities have been highlighted in the NAP updating process as being inadequate and needing attention. These activities have been costed in the updated NAP and as the programme activities yield results and roadmaps for expanding and sustaining results are developed, then the Tripartite will work with government and development partners to secure long term support for these areas. The Tripartite and government have existing systems in place to enable communication and oversight.

- g) *how this programme fits with existing work of tripartite organisations and other development partners.*

This programme of work complements existing work on human sector surveillance (ESBL producing *E. coli*, or the Tricycle Project and the establishment of a national AMR surveillance platform and mechanism, which includes GLASS and WHONet) and AMU (review and adoption of draft AWaRe guideline), as well as an updated multi-sectoral NAP-AMR 2020-2024 (with costs and governance included). It also adds to the work in the animal sector where the Indonesian veterinary faculties association is strengthening information and knowledge about AMR and AMU for students; and in addition the government has established a national AMR surveillance system for broiler poultry.. Much of this work has been supported either by WHO or by FAO, or both.

Major gaps identified include WASH and IPC (especially in health care facilities) and high AMU in farms for prophylactic purposes, which suggest that farm level IPC practices are inadequate. This work is focussing on plugging this gap.

- h) *what is the anticipated situation after this phase of the joint Tripartite programme is effectively completed?*

By the end of this programme it is anticipated that materials will have been developed, training and awareness-raising work would have started, plans for expansion of activities for dissemination, implementation and monitoring would have been prepared and trialled. It is expected that the Tripartite would remain in a position to support the government in longer-term monitoring and evaluation, and work with development partners to expand the WASH and IPC work. COVID-19 has ensured that this is an area where awareness has risen considerably in the last few months and which is receiving much greater attention going forward. The timing of these activities should be sufficient to ensure interest and resources to continue this work beyond the life of this project.

2.2 Theory of Change (max 2 pages)

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 Matrix) are the Tripartite collaboration trying to achieve?

One of the most challenging aspects of public health has always been behaviour change, whether this be in terms of (i) hygiene behaviour, both relating to humans in home and healthcare settings and humans working in livestock production settings, or (ii) use of antibiotics, again both for humans and for animals/fish/agriculture. The COVID-19 pandemic has seen significant improvements in hygiene behaviour in human and animal [DS1] settings although it seems that the indiscriminate use of antibiotics has increased enormously in COVID-19 infected patients[DS2] .

Through this work, ‘Combating AMR in Indonesia through multi-sectoral approaches to infection reduction and improved stewardship’, the Tripartite is seeking to build on the COVID-19 momentum achieved in hygiene behaviour change to reduce the need for antibiotics whilst seeking to provide a reality check in the effective use of antibiotics in the management of infectious disease. It is seeking to develop the capacity of government and its institutions, and partners, to achieve these changes and to carry out continuing monitoring, reporting and policy dialogue to sustain and enhance these changes in the longer term.[DS3]

The response to COVID-19 by WHO and many others has been rapid and informative. Many materials have been developed and disseminated in these two work areas, which has added to the opportunity for FAO, OIE and WHO to work together to adapt these materials to Indonesia’s specific context, but also to develop materials in locations where none currently exist. The new materials complement, and build on, existing resources on WASH and IPC in the human sector, which could be adapted for livestock production contexts. The new practical toolkit for Antimicrobial Stewardship Programmes in HCF’s in Low and Middle Income Countries presents us with an opportunity to develop Indonesia-specific tools on stewardship in the human and animal sectors.

So, in the field of WASH and IPC in HCFs, the Tripartite’s work seeks to:

- Sustain and improve WASH and IPC in Health Care Facilities into the long term (this would complement a WHO regional situational analysis of WASH and IPC in HCFs which has just started, and seek to help implement the recommendations from the analysis);
- Extend community WASH planning beyond the five pillars of household based *Sanitasi Total Berbasis Masyarakat* (STBM) already piloted extensively in Indonesia (stopping open defecation; hand-washing with soap; safely managing drinking water and food; properly managing solid waste and safely managing household liquid waste) to cover ‘occupational’ WASH in small-holdings since small-holder production may sustain infectious and diarrhoeal disease even where good household WASH is practiced, and
- Develop institutional WASH and IPC guidelines similar to those for HCFs – “AgriWASH”, and biosecurity – for larger scale farming systems.

And in the area of optimizing use in the human and animal sectors, the Tripartite’s work seeks to:

- Understand current practices in humans and animals through reviews in pilot areas;
- Develop guidance and standard treatment guidelines with an application for both health care professionals and veterinarians/veterinary paraprofessionals based on the AwaRe classification; and
- Creation of a coordination mechanism to monitor use in both sectors in the longer term.
- AMS guidance is for this reason to be implemented with a bottom-up approach and that regulation, oversight, monitoring and reporting should be prioritised at the local level. Piloting at local level for all these activities will be the focus.

Through these activities, the Tripartite is seeking to improve sub-optimal practices and behaviours and the shortage of trained professionals.

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

The priority objective of the partners is to make a tangible improvement in rates of infection and levels of antibiotic consumption in Indonesia in the coming years. This would be achieved through better equipped and informed workforces in the human and animal health sectors, and improved communication on AMR between government and key partners.

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

As part of the dissemination and expansion of the outputs from the work on behaviour change, the Tripartite will be working with the government on communication strategies. In turn, the behaviour change outputs and outcomes will also only be part of the work with government on communication.

The Tripartite has a comparative advantage, not only in its access to technical expertise but also in access to government and in its long term presence and support to governments. Therefore, the Tripartite is in a position to work with government to, ultimately, make explicit commitments (they already have a costed AMR NAP) on AMR but important incremental steps on the way would require active engagement with critical stakeholder groups. The reason for the Tripartite's existence is to strengthen enabling environments and multi-sectoral approaches through examples coming from its own existence, and dialogues with partners, and from its operations in countries. It would seek to enhance the government's policy dialogue through the joint development of:

- monitoring and evaluation plans for NAP implementation in pilot areas, and
- a communication and advocacy strategy for engagement with farmers, veterinarians, food producers, pharmaceutical manufacturers and sellers, investors and development partners, civil society and academia.

- *What does the project assume responsibility for?*

The project assumes responsibility for delivering the outputs (materials), the training and related capacity building work and the wider monitoring and communication activities. Not only will it assume responsibility for the work carried out during the project period but it will also take responsibility for developing, and seeking support for, the longer-term activities required to embed and sustain the outcomes from the project.

- *What contributions do partners make towards achieving results?*

The partners are able to make contributions from all of their constituent levels, at national, regional and global/HQ level so bringing global expertise to bear, but also national interpretation and communication of that expertise to ensure that it is relevant and impactful. The results include materials (guidelines, toolkits, plans), trained professionals and monitoring, reporting and communication processes; the partners will be contributing significantly to all of these. These are not one-off results but are part of a continuum and partners are in a position to continue to contribute to these beyond the life of the project due to their long-term presence in-country.

FAO, OIE and WHO will contribute to strengthen systems for biosecurity and IPC, strengthen systems for optimized use in the critical sectors; and implement engagement plans with critical stakeholder groups using One Health approaches in each sector.

Project activities will directly contribute to the achievement of the strategic objectives to improve awareness and understanding of antimicrobial resistance through effective communication, education, and training; reduce the incidence of infection through sanitation, hygiene, and infection prevention and control; and optimize antimicrobial use in humans, animals, fish, and plants in the Government of Indonesia 2020-2024 National Action Plan for AMR.

- *Can the objectives be achieved using the resources that the partners are able to provide?*

Significant progress can be made in achieving the objectives sought by the partners with the resources from the project and additional resources that the partners will be able to bring. However, the objectives look beyond the time-line of this project so whilst the project activities and deliverables will be completed, the objectives will only be met in the longer term. The partners are ideally placed to continue the work beyond the current timeline.

Answering these question leads to a complex, not always linear ToC, which opens a systemic view, as it maps the entire change process influenced by the different actions/measures. The ToC is seen as a way to plausibly demonstrate impact and shows which objectives can realistically be achieved within the time frame and financial scope of a programme; it will also demonstrate which impacts can be expected beyond the project's sphere of responsibility.

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

This narrative should relate 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.*

WHO is the main development partner of the Ministry of Health that manages activities in the human health sector including main MPTF-related activities such as AMR and AMU activities and IPC. WHO has taken the lead on the development of multi sectoral AMR national action plans since 2017.

FAO is the main development partner of the Ministry of Agriculture that provides technical assistance to government and the private poultry sector on emerging pandemic threats and AMR/AMU.

The OIE works directly through its country delegate, the Director General of the DGLAHS, MoA, in implementing the OIE' standards on animal health and welfare including standards on AMR and AMU. In addition, the OIE delegate is supported by eight focal points who are experts in the respective subject and Veterinary Products and AMR is the one that directly engaged in AMR activities out of eight.

- *Indicate which Tripartite partner(s) will be accountable for the delivery of specified results at activity and output level.*
 - Human Health:
Directorate of Referral Health Service for Development and piloted implementation of IPC-WASH guidelines; Directorate of Pharmaceutical Service, National AMR Control Committee (KPRA) and Professional Organizations for Development of standard treatment guidelines and a user-friendly application (for both human and animal health) using the AWaRe classification for health care professionals; and the National Agency of Drug and Food Control for Coordination mechanism for monitoring and inspection of antimicrobial use in humans.
 - Animal Health:
The Tripartite partners that are accountable for delivery of specified results at activity and output level will be the Directorate General of Livestock and Animal Health Services - Ministry of Agriculture, specifically the Directorate of Animal Health.
- *Refer to the pre-determined outcomes/outputs of the AMR MPTF ToC.*
 - Outcomes:
 - a. Use of antimicrobials optimized in critical sectors
 - b. Improved understanding of AMR risks and response options by targeted groups
 - Project Outputs:
 - a. Systems for biosecurity and IPC strengthened in targeted countries
 - b. Improved understanding of AMR risks and response options by targeted groups
 - c. Systems for optimized use strengthened in critical sectors
- *Identify capacity needs and precondition requirements of government to sustain results.*
 - The capacity of the central government to include AMR control components in the Strategic Plan of each Ministry
 - The capacity of the central government in building cross-sectoral coordination in AMR control activities
 - The capacity of local governments to monitor antimicrobial use at the farm, hospitals, health care centre and distribution/marketing level.
- *Indicate trans-boundary and regional issues and opportunities where relevant*

Illegal antimicrobials trade without permission or regulation of local authorities.

- *Briefly outline the expected progress towards the selected outcome(s) from Tripartite AMR result matrix.*
 - MPTF project endorsed by Government counterparts through intensive high-level advocacy meetings.
 - Held multi-sectoral coordination meeting to agree the MPTF work plan in line with 2020-2024 National Action Plan for AMR control.
 - Implemented the joint review of infection prevention and control (IPC – including WASH) and Antimicrobial Stewardship (AMS) in human and animal sectors in pilot areas.
 - Developed IPC/AMS guidelines, IEC and training materials, and implemented IPC and AMS pilot project in targeted areas, based on the joint review report and recommendations.
 - Established a national system for IPC, Biosafety, and optimizing the use of antimicrobials for the human and animal sectors as a result of the implementation of the IPC and AMS pilot project conducted through a series of intervention activities (high-level advocacy, capacity building, awareness raising/ community engagement, as well as system and policy development) in targeted areas.
 - Developed standard treatment guidelines for both human and animal health key stakeholders and improved the coordination mechanism for monitoring and inspection of antimicrobial use in human and animal health.
 - Strengthened the adoption of a multi-sectoral IPC and AMS system, standardized treatment guidelines for key stakeholders, and the coordination mechanism for monitoring and inspection of antimicrobial use in human and animal health through improving communication and advocacy strategy for engagement with key stakeholders (farmers, veterinarians, food sectors, pharmaceutical manufacturers and sellers, investors and development partners, civil society, academia).

- *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 (not longer than half a page).*

AMR control in the MPTF pilot locations has improved significantly as seen from the reduced rate of antimicrobials misuse in the human health and animal health sectors. A coordinated campaign of antimicrobial stewardship has been carried out targeting health care facilities, health professionals, veterinarians, poultry farm workers, farmers and the community. These activities increase awareness and trigger behavioural changes in prudent antibiotic usage. Furthermore, antibiotic consumption in the pilot locations is also reduced by the implementation of IPC programs in health care facilities, animal health centres and poultry farms. The implementation of IPC through improving hygiene/sanitation and AgriWASH reduces the risk of disease incidence, which leads to decreased antibiotic usage. This improvement is achieved by implementing guidelines and SOPs developed by the Tripartite organizations and the application of computer-assisted decision making through a disease treatment and antibiotic prescription smart phone application. All of these successes will be achieved through the active role of human and animal healthcare professionals, community leaders and the support of the Tripartite partners.

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

WHO and FAO as UN organizations will support the rights of women as stated in the Organization's founding Charter. Article 1 of the UN Charter commits to achieving international co-operation and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion.

As with other health-related delivery systems in human and animal health, it is important to take into account gender and other forms of equity in AMR. The differences in emergence and spread of AMR between men and women does not only reflect biological differences but also socially constructed differences in gender, exposures, and access to information and other resources. These inherent and constructed differences need to be understood to ensure that the vulnerable are also effectively reached. Until recently, the country had no data or reports on Gender, Equity and Human Rights (GER) issues in AMR programmes or whether certain community groups are more exposed to or more severely impacted by AMR. The related data may be available but need further analysis to decide whether the shown data intersect with other issues such as income and education, occupation and geographic location or women having greater exposure to AMR in health facilities during pregnancy.

The individual long-standing work of FAO and WHO in Indonesia, and globally, have built a rich, reinforcing resource that can well-support the efforts to integrate gender into tackling AMR in Indonesia. Through the MPTF and the Tripartite network, related information on population diversity will be collated. This includes situational analyses or studies describing gender and equity differences between AMR-related health care and conditions (such as childbirth, surgery and/or drug resistant diseases such as TB, HIV or malaria) and socio-economic structures in animal health settings. In agriculture, for example, FAO has a country gender assessment of agriculture and the rural sector in Indonesia, KAP and AMU studies in livestock and poultry, as well as other materials and outputs that have incorporated gender considerations.

The country Tripartite organizations will start to collect baseline data on GER issues through joint review of infection prevention and control and WASH in the human and animal sectors in pilot areas and a joint review of Antimicrobial Stewardship (AMS) practices in humans and animals in pilot areas. For these activities, we will collect and analyse data through tools developed to establish baselines and assess trends in knowledge and behaviour of different segments of populations. This can be used to tailor health education, awareness raising and behaviour change strategies for increased AMR control including IPC-WASH intervention effectiveness. The AMR baseline data, will help shape and refine project implementation as well as provide guidance in strengthening integration of gender and equity into the broader strategies of the Indonesian NAP for AMR. For example, this collective information can help in targeting and refining behaviour change among the identified critical stakeholders.

Development of monitoring and evaluation plans for NAP implementation in pilot areas will also assess GER issues in all implementation phases of the project. Efforts to protect and improve population health are widely acknowledged in a variety of global mandates and

instruments, including the Sustainable Development Goals (SDGs), WHO's Constitution and overarching strategic plan, as well as in the UN Sustainable Development Cooperation Framework.

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

- *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*

Indonesia is one of the priority countries receiving MPTF grants to achieve the goals of AMR control using the One Health approach because it has demonstrated already its significant progress in this area. The cross-sectoral approach to AMR control has been implemented through the development and implementation of the National Action Plan for AMR supported by WHO and FAO. This multi-sectoral cooperation is expected to improve with the commencement of this additional development project, which will sustain the momentum of activities until such time as the government is ready to take over completely. The initial implementation of Antimicrobial Stewardship (AMS) and Infection Prevention and Control (IPC) in each sector will be improved through cross-sectoral implementation of activities in alignment with MPTF objectives.

The majority of the funding will go to Indonesia since WHO and FAO Indonesia have prioritized the use of Indonesian human resources, with backstopping support from regional and headquarters partners in WHO, FAO and OIE. The backstopping support from FAO and WHO regional offices and headquarters is essentially free since it comes largely from in-house expertise. OIE will place a local staff at DGAHLS under the supervision of OIE Veterinary Products Focal Point and the OIE regional office provides technical assistance remotely as much as possible, however for some of the activities, OIE staff will need limited number of travels to Indonesia both for setting up the activities as well as for monitoring purposes. For cost efficiency, some travels of OIE staff will be linked with other activities and will be charged to other funds. The work here is seen as an extension of existing work done by the Tripartite globally and elsewhere in the region on WASH, IPC and AMS in communities and institutions so the in-house expertise is available, tried and tested. Many of the outputs from this investment will either be online (preferred) or hardcopy so the raw material and capital costs to provide important, long-term and influential outputs is small. Investing in AMS and IPC in Indonesia is good value for money since the expertise remains with local experts, supported by international experts for the benefit of the country.

COVID-19 has had a major influence on work practices and modalities; this will continue for the duration of this project at least with much more work conducted online reducing travel and subsistence costs, although priority will still be given to face-to-face field-based activities where appropriate.

- *Outline the options considered for to identify the most efficient and effective intervention to address the problem.*

The Tripartite has proven experience of delivering AMR-related outputs in the region and in Indonesia, and as a result has been asked to pilot and implement several new ideas and products. The Tripartite has also demonstrated an ability to work together (both amongst

themselves and to call on the best available global expertise) to produce important outputs of use to countries and supporting agencies. At the global level, a recent example is the Technical brief on WASH and wastewater to combat AMR, at a regional level are the Guidelines Volume 1: AMR surveillance in bacteria from healthy animals, and at a national level are FAO examples, such as National Poultry Surveillance Guidelines. At all times the Tripartite retain QC over all outputs for which they are a major contributor.

The work here will build on recent outputs, such as those listed above and so the expertise is still available and the ideas are still fresh, as are the global, regional and local partnerships. The Tripartite are also well placed to provide contextually appropriate input given their long-term relationship with government, and intensive and extensive assessment of country situations through exercises such as the Joint External Evaluation and the ATLAS surveys. Thorough knowledge of country and national government and non-government partners is essential to maximise efficiencies in the development and delivery process. The GOI have been close partners in the development of this process and are requesting immediate development of Terms of Reference for all of the activities listed in this proposal so that there will be suitable preparation and agreement on inputs and outputs before the project begins.

MPTF activities will further empower local resources that are already directly involved in AMS and IPC activities in the field, namely the government, associations and professional organizations, the private sector, farmers groups and communities, so that the results of interventions can be measured by the involvement and adoption of the activities carried out by the stakeholders involved.

The close involvement of UN partners such as WHO and FAO enables us to ensure that the deliverables and impacts are in line with the requirements of the SDGs and form part of the monitoring framework. This also enables us to seek to ensure that the outputs are structured and delivered in such a way that the fourth 'E', equity, is promoted.

- *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.*

MPTF-funded activities are planned to be carried out over both the short and long term, providing rapid benefits while working towards more complex goals. The results of the first short-term (18 months) achievement will be used as the basis for long-term preparation up to 2024. Therefore, the establishment of central and regional coordinators in the form of working groups will be optimized so that MPTF activities are known and supported by stakeholders at all levels.

- *Demonstrate how long-term financial sustainability will be secured at the end of the programme.*

As mandated by Presidential Instruction No. 4/2019 and the endorsement of the 2020-2024 AMR NAP by political officials, as well as the existence of AMR-related activities in the RPJMN, will be the basis for relevant ministries and local governments to draw up sustainability plans for AMR activities initiated by the MPTF project. In addition, the

involvement of the private sector, associations and professional organizations will be a vehicle for the sustainability of MPTF activities at the field level.

- *Demonstrate how the intervention supports equitable and sustainable outcomes.*

MPTF activities are planned and developed to enable engagement with the main actors at the level of farmers, communities, health workers and other stakeholders, so that the interventions undertaken provide benefits for them.

2.5 Partnership and stakeholder engagement (max 2 pages)

- *Briefly explain:*
 - *how this joint Tripartite programme would support the work of the National AMR coordination committee;*
 - *which government departments would be involved in programme delivery and what is their role; and*
 - *the unique contribution of the Tripartite.*
- The Country Tripartite organizations will work in partnership with the Ministry of Health (MoH), Ministry of Agriculture (MoA), Ministry of Marine Affairs and Fisheries (MoMAF), Ministry of Environment and Forestry (MoEF) and the private sector. WHO would work with key human health sector partners (National AMR Control Committee, National Agency of Drug and Food Control, MoH Directorate of Referral Health Service, Directorate of Pharmaceutical Service, and the MoH Center for Research and Development for Biomedical and Basic Health Technology and others). FAO and OIE would work with key animal health sector partners (MoA Directorate General of Livestock and Animal Health Services, particularly the Directorate of Animal Health, poultry farmers' associations, the commercial poultry industry and the Indonesian Veterinary Medical Association).
- Based on Presidential Instruction No. 4/2019, MoH is the coordinator for AMR programmes, and MoA and MoMAF are members. Regular multi-sectoral coordination meetings have taken place to monitor NAP implementation in human health, animal health and fisheries. Indonesia does not yet have a multi-sectoral AMR committee but has a coordination mechanism or forum consisting of inter-ministerial focal points and experts from different sectors. FAO, OIE and WHO have already been involved in this coordination forum and contributed to strengthen multi-sectoral coordination mechanisms to monitor NAP implementation.
- One Health refers to designing and implementing programmes, policies, legislation and research in a way that enables multiple sectors, disciplines and stakeholders engaged in human, terrestrial and aquatic animal and plant health, food and feed production and the environment to communicate and work together to achieve better public health outcomes.
- The WHO Country Office has been involved in AMR activities with the Government of Indonesia since 2013 when the Country Office provided support to the MoH on AMR Surveillance studies in hospitals. Continued support to government initiatives includes

support to development of the current NAP for AMR 2017-2019 and its revision for 2020-2024, and guiding the initiation of country involvement in GLASS. WHO supported MoH to develop Guidelines for Antibiotic Use that has adopted the AWARE classification and facilitated capacity building for health care workers on IPC in the COVID-19 context.

- FAO ECTAD in Indonesia has extensive experience in One Health in many areas: highly pathogenic avian influenza (HPAI) control, emerging infectious diseases (EID) detection, rabies control, and AMR at both central and local government level. Our proposal intends to expand on existing One Health activities in AMR to further strengthen networking, cooperation, collaboration and sharing of information between sectors.
 - The OIE Regional Representation for Asia and the Pacific (RRAP) and the OIE Sub-Regional Representation for South East Asia (SRR-SEA) has been working closely with the DGLAHS mostly in AMU data collection that contributed to the global database on AMU maintained by the OIE. The DGLAHS has been using the OIE's communication materials on AMR for organising advocacy campaigns on AMR every year during the WAAW.
 - At the regional and global levels, WHO and FAO, together with OIE, form the Tripartite and take collective action to minimize the emergence and spread of AMR using a One Health approach. The collaboration between WHO and FAO as consortium partners highlights our commitment to, as well as technical expertise and experience in applying the One Health approach to addressing AMR. FAO, OIE and WHO will contribute to strengthening systems for biosecurity and IPC, strengthen systems for optimized AMU in critical sectors; and engage with critical stakeholder groups through a One Health approach in each sector.
 - Project activities will directly contribute to the achievement of the NAP strategic objectives, and improve awareness and understanding of antimicrobial resistance through effective communication, education, and training; reduce the incidence of infection through sanitation, hygiene, and infection prevention and control; and optimize antimicrobial use in humans, animals, fish, and plants in the Government of Indonesia 2020-2024 National Action Plan.
- *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.*
 - The proposal is guided by the National Action Plan (NAP) on AMR 2020-2024. This NAP was developed by different ministries, professional organizations, academics, private sectors and CSOs. This ensures alignment with other actors in the country through its ongoing collaboration with the Ministry of Health, other relevant ministries, universities, professional associations, and other donors.
 - Strengthening systems for biosecurity and IPC in human and animal health will only be undertaken following a needs assessment involving all stakeholders, agreement on ownership by the MoH, MoA, MoMAF and MoEF, identification of competent local partners for project development and implementation, and identification of resources

to ensure sustainability of the system or activity. Through our commitment to delivering programs through and alongside the Government of Indonesia, national level buy-in is guaranteed, reducing the risk of projects failing to be completed.

- The Country Tripartite Organizations will involve and/or consult experts from the National AMR Control Committee and from professional organizations to ensure knowledge and practice exchanges and direction to be achieved as planned in the NAP.
- *Explain how the joint Tripartite programme will pool and mobilize expertise from across the Tripartite at country, regional and global levels*
 - In preparing the joint proposal, consultations have been held with WHO, FAO and OIE regional offices and with the Ministry of Health, Ministry of Agriculture, Ministry of Marine Affairs and Fisheries, and the Ministry of Environment and Forestry. For this joint Tripartite programme, planning, implementation, monitoring, and evaluation will mobilize expertise from country offices, regional representations and headquarters, including support beyond the AMR area such as Health Policy Strengthening, WASH/AgriWASH, UHC (Universal Health Coverage), Essential Drugs and Medical supplies, and Information Systems. As example, FAO and OIE through their network of AMR Reference and Collaborating Centres, can facilitate expert services to countries in the region including Indonesia. This will ensure that MPTF activities in Indonesia will benefit from appropriate expert support from the Tripartite at country, regional and global levels.
- *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*
 - The AMR landscape in Indonesia is guided by the Global and National Action Plans on AMR where stakeholders including donors will reference these Plans for implementation of their activities, led by the government.
 - The Country Tripartite Organizations will use available AMR coordination mechanisms to synergize deliverables and outputs of existing donors. Close coordination, engagement and dialogue between partners will benefit the planning, implementation, monitoring, and evaluation of AMR programme activities.
 - Coordination and cooperation across programmes and building synergies across projects within a similar theme will be used to measure the contribution of a programme to achieving AMR objectives within a wider context; this will lead to more effective use of resources.
- *If there is a risk that there might be double counting of results between existing programmes explain how this will be avoided.*

- The AMR landscape in Indonesia is guided by the National Action Plan on AMR 2020-2024 where stakeholders, including donors will refer to this Plan to harmonise the implementation of their activities under Government leadership and direction.
- Development of the MPTF proposal is linked to the NAP 2020-2024 where the MPTF activities keep away from activity areas covered by other existing programmes, which focused on AMR and AMU surveillance. The national Tripartite organizations will maintain close dialogue and coordination with other AMR delivery organizations to avoid the risk of double counting results.

2.6 Programme implementation in the light of COVID-19

- *Explain how programme implementation may be affected by COVID 19.*
- *Identify how you plan to mitigate any COVID 19 related risks.*
- *Explain aspects of the proposed programme that have changed from the concept note to align more closely with the national COVID 19 response.*
 - Health systems are being confronted with rapidly increasing demand generated by the COVID-19 epidemic. Implementation of all programmes, including AMR, are affected due to this pandemic. Early serological studies indicate that a relatively low percentage of the population has antibodies to COVID-19, which means most of the population is still susceptible to the virus. This means that until a vaccine is available, we will have to live with this virus and manage the situation for some time to come.
 - Indonesia, as of 30 June 2020 reported 56.385 (1.293 new) confirmed cases of COVID-19, with an increasing trend in new cases and a total number of fatalities at 2.876 (71 new). All provinces have reported COVID-19 cases and have been mobilizing all available resources to cope with the virus. This situation for sure will have an impact on implementation of proposed MPTF activities in Indonesia. However, some activities e.g. IPC and WASH related activities will support and benefit the Government's efforts to control COVID-19 in the country. They will promote and enable standard COVID-19 prevention and control in terms of physical distancing, hand washing, respiratory etiquette and monitoring compliance with these measures.
 - Since most ministries will be busy with COVID-19 at the central level, some of the proposed activities could be carried out in districts where the COVID-19 workload is lower. The country Tripartite organizations will use this opportunity to focus the programme at local level and generate results as expected.
 - Some of the proposed activities will be supported by partners that have ample resources and flexibility to deliver the tasks.
 - However, some of the activities will still need to adapt to the country's COVID-19 epidemiological situation. When they come under threat due to competing demand for resources, simplified purpose-designed mechanisms can mitigate the risk of implementation failure. Successful implementation of this project will require flexibility and frequent communication with the MPTF Secretariat and the Government.
 - On a positive note, the COVID-19 pandemic has significantly raised awareness of the need for IPC and this new awareness can be leveraged for project activities.

2.7 Communication, Advocacy and Lesson Learning

- *Identify opportunities for advocacy within the joint Tripartite programme.*

Advocacy of MPTF activities should be carried out with:

- Related ministries (MoH, MoA, MoMAF, MoEF)
 - Local government (from service office level to regional head)
 - Professional associations and organizations
 - Private Sectors
 - Farmer groups
 - Community groups
- *Identify aspects of the programme that might be particularly interesting for targeted communication and lessons learning.*
 - Health aspects related to raising awareness on the need for IPC and WASH particularly since we will be dealing with the COVID-19 pandemic for years to come, as well as the prudent and rational use of antibiotics for humans and animals
 - Socio-economic aspects of the prohibition of antibiotics as animal growth promoters and misuse of Critically Important Antibiotics (CIA) for humans in animal health and production, to support rural livelihoods
 - Environmental aspects as a result of antibiotic removal from health care facilities and farms
 - Human resources.
 - *Identify opportunities for high-level strategic influencing, communication and advocacy.*
 - Advocacy and communication at the central government level
 - Advocacy and communication at the local government level

3 Programme implementation

3.1 Governance and implementation arrangements (max 3 pages)

- *Explain the composition, roles and responsibilities of the Country AMR MPTF Team, including the implementation arrangements, roles and responsibilities of each Tripartite organisation.*

The country AMR MPTF team:

- a. Human Health Sector
 - Ministry of Health
 - *National Agency for Drug and Food Control*
 - *WHO*

Roles and responsibilities:

- Support the implementation of MPTF activities in the human health sector
- Lead multi-sectoral coordination
- Ensure MPTF activities are in line with AMR NAP, JEE indicators and RPJMN
- Coordination with local governments and the private sector

- Provide technical assistance on IPC, WASH, AMS and AMR awareness raising
- Provide project reports and recommendations

b. Animal Health Sector

- Ministry of Agriculture
- FAO
- OIE

Role and responsibilities:

- Support the implementation of MPTF activities in the animal health sector
- Actively participate in multi-sectoral coordination
- Ensure MPTF activities are in line with AMR NAP, JEE indicators and RPJMN
- Coordination with local government and the private poultry sector
- Provide technical assistance on IPC, Agri-WASH, AMS and AMR awareness raising
- Contribute to project reports and recommendations

- *Explain how the day to day programme operations will be coordinated (through the appointment of a national coordinator based in one of the agencies, or in the national coordination office).*
 - In the animal health sector the MPTF team under FAO will collaborate and coordinate with the DGLAHS-MoA, while in the human health sector the MPTF team under WHO will collaborate and coordinate with MoH and ARCC. Day to day programme collaboration will be managed by FAO and WHO with each sector and will be coordinated to government
- *Explain the role of the leaders of Tripartite Organisations in providing strategic oversight in raising AMR as a political and development issue with government and other stakeholders, and in engaging relevant stakeholders in decision making when necessary.*
 - The Tripartite leaders will present project results to the government regularly to strengthen the role and position of the MPTF programme, so it can be implemented with ease. MoA and MoH will coordinate in the application of project results at each ministry.
- *Explain government-level engagement and leadership including how the results of the joint Tripartite programme will be internalised and sustained by government and other stakeholders.*
 - MPTF activities will be under the command of the relevant Directorates General in each ministry. The animal health sector will be under the Director General of Livestock and Animal Health Services, assisted by technical directorates, particularly the Directorate of Animal Health and Directorate of Veterinary Public Health. The AMR and AMU components will be followed up by the Sub-directorate of Animal Product Safety Supervision and the Sub-Directorate of Veterinary Medicine Supervision, while the IPC will be followed up by the sub-directorate for the Prevention and Eradication of Animal Diseases.

- The human health sector MPTF activities will be under the Director General of Health Services and Director General of Pharmaceuticals and Medical Devices, Ministry of Health; Directorate of Referral Health Service for IPC-WASH activities, Directorate of Pharmaceutical Service and KPRA for development of guidelines for standard human health treatments, National Agency of drug and food control for joint inspection of AMU.
- *Explain how the AMR MPTF country programme will fit with ongoing activities of government, the tripartite and other donors, and, where appropriate, how this avoids duplication or introducing parallel structures.*
- We will discuss the proposal with the government before starting the programme. The MPTF project can certainly be run according to government needs and will fill gaps in defined AMR areas that have not yet been covered so that there will be no overlap/duplication.

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.

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

- Annual narrative progress reports, to be provided no later than three (3) months (31 March) after the end of the calendar year, and must include the results matrix, updated risk log, and anticipated activities and results for the next 12-month funding period;
- Mid-term progress review report to be submitted halfway through the implementation of the Joint Programme² (depending on timing this may merge with the annual report);
- Final consolidated narrative report, after the completion of the joint Tripartite programme, to be provided no later than three (3) months after the operational closure of the activities of the Joint Tripartite programme.

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 AMRMPTF.

² This will be the basis for release of funding for the second year of implementation

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

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

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

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

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 (copy of the UNSDCF Indonesia attached)

No

Annexes

Annex 1 - Log Framework Template

AMR MPTF Log framework		Name of country INDONESIA	
Impact: AMU behaviours and practices sustainably improved across all critical sectors			
Objectives	Indicators	Sources of verification	Key assumptions and risks
MPTF Outcome Objectives A. Use of antimicrobials optimized in critical sectors	Indicator 1: Number of provinces (pilot area) that implemented one or more (additional) international instruments on AMR in the health, animal or plant sector. Baseline value: 0 Target value: 2 provinces	<i>Project report</i>	<ul style="list-style-type: none"> - That there will be no delay of fund releases from MPTF - That there will be no significant political changes or shifts in national priorities - That there will be no excessive changes in staffing in partner ministries.
	B. Improved understanding of AMR risks and response options by targeted groups	Indicator 2: Number of national wide targeted awareness campaigns that are established (TrACSS 6.1) Baseline value: 4 Target value: 2 (total 6)	
	Indicator 3 Number of provinces (piloted area) that have improved understanding of	Survey report	

	<p>AMR risks and response options by targeted groups shown by validated instruments</p> <p>Baseline value: 0</p> <p>Target value: 2 provinces</p>			
MPTF Output Objectives	Indicator	Source of Verification	Key Activities	Key Assumptions and Risks
<p>Output A: Use of Systems for biosecurity and IPC strengthened in targeted countries</p>	<p>Indicator A.1 Number of province (pilot area) that are supported to implement and/or scale up minimum requirements for infection prevention (e.g. husbandry and biosecurity) for food animal production, in accordance with international standards (GAP M&E Framework 3.d). Baseline value: 1 province Target value: 2 provinces</p>	<p>A.1 Joint Review data before and after pilot implementation</p>	<p>Activities A:</p> <p>1. Joint review of infection prevention and control (IPC – including WASH) in human and animal sectors in pilot areas</p> <p>2. Develop and pilot implementation of IPC initiatives in healthcare facilities and farming systems using complementary parallel approaches on WASH, AgriWASH, IPC, and farm biosecurity</p>	<p>Assumptions: Active support from concerned ministries will be available and the current workload for COVID-19 for ministries will reduce. Risks: Competing priorities in local government; price fluctuation and disease incidence in farms; lack of willingness from government to invest in infrastructure.</p>
	<p>Indicator A.2 Number of province (pilot area) IPC programme supported in line with IPC core components Baseline value: 0 Target value: 2 Provinces</p>	<p>A.2 Joint Review data before and after pilot implementation</p>		

<p>Output B: System for optimized use strengthened in the critical sectors.</p>	<p>Indicator B.1: Guidelines for responsible and prudent use of antimicrobials based on international standards are developed or revised.</p> <p>Baseline value: 0</p> <p>Target value: 2 (AMS guidelines in human and animals, Standard treatment guideline Apps in human and animals)</p>	<p>B.1 Activity reports, guideline, and application.</p>	<p>Activities B:</p> <ol style="list-style-type: none"> 1. Joint review/ assessment of Antimicrobial Stewardship (AMS) practices in humans and animals in pilot areas 2. Develop Antimicrobial Stewardship guidelines for human and animal health 3. Develop standard treatment guidelines and a user-friendly application (for both human and animal health) using AWaRe classification for health care professionals and veterinarians/ veterinary paraprofessionals 4. Create coordination mechanism for monitoring and inspection of antimicrobial use in human and animal health 5. Joint assessment of implementation of AMU stewardship in selected farms and communities through Knowledge Attitude Practices Survey (KAP) towards the end of the project 	<p>Assumptions: active support from concerned ministries and workload of ministries on COVID-19 reduced.</p> <p>Risks: Competing priorities in local government, willingness to share information between sectors.</p>
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<p>Output C: Engagement plans with critical stakeholder groups implemented.</p>	<p>Indicator C.1: Number and list of stakeholders engagement plans developed and/or implemented at the national level</p> <p>Baseline value: 0</p> <p>Target value: 1 (a comprehensive engagement plan)</p>	<p>C.1 Activities reports.</p>	<p><i>Activities C:</i></p> <ol style="list-style-type: none"> 1. Develop monitoring and evaluation plans for NAP implementation in pilot areas 2. Develop communication and advocacy strategy for engagement with key stakeholders (farmers, veterinarians, food sectors, pharmaceutical manufacturers and sellers, investors and development partners, civil society, academia) 	<p>Assumptions: Consistent participation of critical stakeholders, active support from concerned ministries and current workload of ministries on COVID-19 is reduced.</p> <p>Risks: Competing priorities in Ministries and among critical stakeholders.</p>
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Annex 2 - Risk Matrix Template

Risk description	Risk Category: Contextual Programmatic Institutional	Worst case consequence for the project	Risk Score		Mitigating action	Action Owner
			Impact	Likelihood		
Delay of fund releases from MPTF	Programmatic	Delay in activity start	High	Medium	Delivery monitoring	FAO
Ministries prioritization work on COVID-19	Contextual	GOI may want to change activities	High	High	Commitment of GOI and targeted advocacy	FAO, WHO
Changes in staffing complement in FAO	Institutional	Slight delay in activities as new staff gets involved	High	Medium	Hand over notes accessible	FAO
Political changes and shifts in national priorities	Contextual	Reduced interest in AMR with resulting possible reduced programmatic achievement	Medium	Medium	Continually involve senior government officials and technical staff in the planning, implementation and review of activities in the programme and ensure high-level attention on AMR	FAO, OIE, WHO

Reduction of project allocated budget due to fluctuation of exchange rate	Contextual	Some activity budgets may need a budget reduction	Low	High	Stakeholders will revise project work plan based on available resources	FAO, OIE, WHO
The COVID-19 event might evolve in unexpected ways	Contextual	Delay in implementation	Medium	Medium	Monitor situation closely; ensure flexibility in planning/ implementation, review plan regularly	FAO, OIE, WHO
Corruption in use of funds allocated for partners	Institutional	Misappropriation of funds, loss of donor confidence and failure to fully deliver project outputs	Medium	Low	Ensure regular spot checks of implementing partners	FAO, OIE, WHO

Annex 3 - Outline of Budget

Categories	FAO	OIE	WHO	TOTAL
1. Staff and other personnel costs ³	112,000	66,000	112,000	290,000
2. Supplies, Commodities, Materials ⁴	-	-	20,000	20,000
3. Equipment, Vehicles and Furniture including Depreciation ⁵	-	-	-	-
4. Contractual Services ⁶	10,000	6,000	20,000	36,000
5. Travel ⁷	72,800	38,341	83,465	194,606
6. Transfers and Grants Counterparts ⁸	102,726	41,386	199,861	343,973
7. General Operating and Other Direct Costs ⁹	20,000	10,000	20,000	50,000
Total Direct Costs	317,526	161,727	455,326	934,579
8. Indirect support costs (Max. 7% of overall budget) ¹⁰	22,227	11,320.89	31,872.85	65,421
TOTAL	339,753	173,048	487,199	1,000,000
Please indicate which organisation will receive pre-financing facility¹¹	-	-	-	-

³ 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.

⁴ 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".

⁵ 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.

⁶ 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.

⁷ Travel: Includes staff and non-staff travel paid for by the organization directly related to a project.

⁸ 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.

⁹ 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.

¹⁰ Indirect Support Costs: (No definition provided).

¹¹ Max 25,000 USD fund can be used as pre-financing. More detailed information can be found in the guiding notes

Annex 4 - National Work Plan Template

Name of Country INDONESIA

Start Date 1 Jan 2020

Projected End Date 31 Dec 2020

	Lead Tripartite Org	Implementing Partner	YEAR 1												YEAR2												
			M o n t h 1	2	3	4	5	6	7	8	9	10	11	12	M o n t h 1	2	3	4	5	6	7	8	9	10	11	12	
A. Systems for biosecurity and IPC strengthened in Indonesia																											
Activity 1: Joint review of infection prevention and control (IPC – including WASH) in human and animal sectors in pilot areas	WHO	FAO, OIE	X	X																							
Activity 2: Develop and pilot implementation of IPC initiatives in healthcare facilities and farming systems using complementary parallel approaches on WASH, AgriWASH, IPC, and farm biosecurity	WHO	FAO, OIE			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
B. System for optimized use strengthened in the critical sectors																											
Activity 1: Joint review of Antimicrobial Stewardship (AMS) practices in humans and animals in pilot areas	FAO	WHO, OIE						X	X	X	X																
Activity 2: Development of AMS guidelines for human and animal health	FAO	WHO, OIE											X	X	X	X											

For in-country planning purposes, it may be helpful to insert the budget for each activity into the plan. This level of detail is not however required in the version submitted to the Secretariat. The outputs should align with the Tripartite AMR results matrix and log framework. This workplan should align with the plans of the respective organizations.

Appendices

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

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

Checklist before submission

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

Please also attach the supporting documents:

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