

Thematic Evaluation Series

Evaluation of FAO's role and work on antimicrobial Resistance (AMR)

Annex 1. Terms of reference

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Acronyms and abbreviations

AMR	Antimicrobial Resistance
AMU	Antimicrobial Use
ATLASS	FAO Assessment Tool for Laboratories and AMR Surveillance Systems
FAO	Food and Agriculture Organization of the United Nations
GAP	Global Action Plan on Antimicrobial Resistance
OED	FAO Office of Evaluation
OIE	World Organisation for Animal Health
TCP	Technical Cooperation Programme
UNEP	United Nations Environment Programme
WHO	World Health Organisation

1. Introduction

1. These Terms of Reference (TORs) have been developed to guide the evaluation of FAO's role and work on antimicrobial resistance (AMR). The document presents key elements that will shape the proposed evaluation by offering a roadmap for the Evaluation Team (ET) and clarifying the roles of all stakeholders.
2. The TORs present in order: (i) background and context of the evaluation with a summary project portfolio; (ii) purpose of the evaluation; (iii) evaluation scope; (iv) evaluation objective and key questions; (v) methodology; (vi) roles and responsibilities; (vii) evaluation products and (viii) evaluation timeline.

2. Background and context

3. AMR refers to the ability of a micro-organism¹ to survive in the presence of an antimicrobial compound, which it was previously unable to do. As a result, human, livestock and aquaculture antimicrobials (antibiotics, anti-parasiticides, antihelmintics, fungicides, antivirals) and crop antimicrobials (pesticides like antibiotics and fungicides²) that were once effective treatments for disease lose their efficiency or become completely ineffective. This leads to a reduced ability to successfully treat infections, increased mortality; more severe or prolonged illnesses; production losses in agriculture; and ultimately reduced livelihoods and food security. Antimicrobial resistant micro-organisms can develop and move between draught/farm animals and humans by direct exposure or through the food chain and the environment³. Unwanted antimicrobials residues may be present in products of animal origin, in animal waste contaminating soil and water and the environment in general, as between 75 to 90 percent of antimicrobials used in livestock are excreted, mostly unmetabolized⁴.
4. AMR is a major global threat to human and animal health and of increasing concern to plant health. It has implications for both food safety and food security and the economic wellbeing of millions of farming households. The health consequences and economic costs of AMR are respectively estimated at 10 million human fatalities a year and a 2 to 3.5 percent decrease in global Gross Domestic Product (GDP), amounting to US\$100 trillion by 2050⁵.
5. It is widely acknowledged that AMR requires a multi-disciplinary and multi-sectoral approach encompassing the interface between humans, terrestrial and aquatic animals, plant and the environment. FAO, as a multidisciplinary organization, can bring expertise in aquatic and terrestrial animal health and production, food safety, crop production, forestry

¹ Bacteria, fungi, viruses, and parasites

² Quantities of antimicrobials used for plant production is estimated to be relatively low in comparison to those used in livestock/aquaculture production, with estimates ranging from 0.2 to 0.4 percent of the total agricultural consumption. It is hypothesized that the residues of fungicides and antibiotics in crops may encourage emergence of resistant strains of fungus and bacteria and possibly increase the risk of human resistance to the drugs.

³ WHO Antimicrobial resistance in the food chain. November 2017. Accessed March 2020 https://www.who.int/foodsafety/areas_work/antimicrobial-resistance/amrfoodchain/en/

⁴ FAO animal production AMR key issues. Accessed Mar. 2020 <http://www.fao.org/antimicrobial-resistance/key-sectors/animal-production/en/>

⁵ UK Government review on antimicrobial resistance chaired by Jim O'Neill. Tackling drug-resistant infections globally: final report and recommendations. May 2016

- and natural resource management, with due attention to all regulatory aspects, and contribute to international efforts to address AMR.
6. AMR has been a key priority for member states and FAO as evident from the two resolutions adopted by the FAO Conference (4/2015, 6/2019) and the interest of the Programme Committee. Resolution 6/2019 recognised the importance of addressing the growing global threat of AMR in all countries through a coordinated, multi-sectoral, One Health approach in the context of the 2030 Agenda for Sustainable Development. It also noted the establishment of the ad-hoc Interagency Coordination Group on AMR (IACG) by the UN General Assembly, which recently submitted its recommendations⁶ on sustained effective global actions to address AMR to the Secretary General in April 2019. The 163rd Session of the Programme Committee underlined the need to raise the visibility of FAO's AMR work at all levels and reiterated the need for an AMR indicator in the strategic results framework. It also encouraged FAO to work further in close cooperation with the World Organisation for Animal Health (OIE), the World Health Organization (WHO) and, more recently, with the United Nations Environment Programme (UNEP) for combatting AMR.
 7. While FAO's engagement on AMR issues can be traced back to 2000⁷, key activities on AMR started in 2014⁸ with FAO's contribution to the development of the WHO-led Global Action Plan on AMR (GAP) and the commitment of FAO Members to work on AMR, confirmed by the adoption of Resolution 4/2015 at the 39th Session of the FAO Conference. As a result, FAO's Action Plan on AMR (2016-2020) was developed to address four major focus areas:
 - i. Focus Area 1: Improve awareness on AMR and related threats
 - ii. Focus Area 2: Develop capacity for surveillance and monitoring of AMR and antimicrobial use (AMU) in food and agriculture
 - iii. Focus Area 3: Strengthen governance related to AMU and AMR in food and agriculture
 - iv. Focus Area 4: Promote good practices in food and agriculture systems and the prudent use of antimicrobials
 8. The overall aim of FAO Action Plan on AMR (2016-20) is to minimize the impact of AMR through the implementation of the Global Action Plan (GAP) on AMR.⁹ The Action Plan is aligned with the GAP on AMR and highlights the necessity of adopting a "One Health" approach.
 9. Internally, FAO activities on AMR have fallen under Strategic Objectives (SO)2, SO4 and SO5 till 2019. For 2020-2021 they also fall under SO1 and SO3. These activities span multiple departments and are coordinated through the inter-departmental AMR Working Group (AMR-WG) set up in 2015 under the responsibility of the Chief Veterinary Officer (AGAH). The Group brings together FAO officers from Animal Health and Production Division (AGA), the Office of Food Safety (AGFF), the Secretariat of the Codex Alimentarius Commission (ADFC), the Joint FAO/IAEA Division (AGE), the Land and Water Division (CBL), the Plant Production and Protection Division (AGP), the Fisheries and Aquaculture Department (FI), the Development Law Service (LEGN), the International Plant Protection

⁶ IACG Final Report: No time to wait: securing the future from drug resistant infections – Report to the Secretary General of United Nations, 2019.

⁷ WHO/CDS/CSR/APH/2000.

⁸ C 2015/28 Rev.1.

⁹ FAO Action Plan on AMR, 2016.

Convention (IPPC), the FAO Strategic Programme teams (SP2 and SP4) and the Office of Corporate communications (OCC). The FAO regional offices and five sub-regional offices have each assigned an officer to participate in the AMR-WG.¹⁰ There are also officers from the FAO Liaison Offices part of the Group. The weekly meetings provide an opportunity to share information, agree on priorities and coordinate activities. In addition to the AMR-WG, there is also a regional AMR working group at RAP that includes FAO country consultants working across countries in the region. Additionally, country offices have specific full or part time AMR officers to implement activities depending upon the project and funding.

10. FAO works with global partners, the WHO and the OIE, through the tripartite initiative, which was formalised in 2010 for sharing responsibilities and coordinating global activities to address health risks at the animal-human-ecosystem interfaces¹¹. The tripartite also signed a Memorandum of Understanding on One Health and AMR in 2018 and have established a Multi-Partner Trust Fund for AMR in 2019 to support collaborative work between them. FAO also has growing links on the environmental impact of antimicrobial use (AMU) with the UNEP. Other partners include regional economic communities and their bodies, the private sector, academia, civil society and financial institutions.

2.1 Project portfolio

11. FAO's work on AMR is mostly being implemented through 12 donor funded projects and six TCPs. The projects are primarily funded by the United Kingdom (Fleming Fund) and United States of America (USAID) along with Norway (NORAD) and the Russian Federation. The European Commission has also recently funded FAO's work on AMR through a project in Latin America and the Caribbean (LAC) that started in February 2020. Additionally, the United Kingdom and the Governments of Netherlands and Sweden have contributed through the AMR Multi-Partner Trust Fund (MPTF) for Tripartite activities. FAO is also recently partnering with Mars Incorporated to expand its work on AMR. The TCPs, AMR work in the Near East and North Africa (RNE)¹² and a few countries in West Africa¹³ and work done through the Codex Alimentarius Commission¹⁴ are funded through FAO's core funding.
12. The total budget for FAO's AMR activities can be estimated at around USD 28 million¹⁵. Around 40 per cent of the contributions for the work on AMR are currently from the Fleming Fund (GCP/GLO/710/UK). However, multiple donors are committing to the future work on AMR, mainly through the AMR MPTF.
13. The projects cover parts of the LAC, Africa, Central Asia and Eastern Europe, South and Southeast Asia. There are also four country specific TCPs on AMR for Maldives, Papua New Guinea, Thailand and Ukraine¹⁶. The projects cover a total of 45 countries, including six in Europe and Central Asia (REU), 10 in Africa (RAF), 13 in the LAC, 15 in Asia and the Pacific

¹⁰ COAG/2016/16.

¹¹ Tripartite Concept Note, 2010 <http://www.fao.org/3/ak736e/ak736e00.pdf>

¹² Except for Sudan (covered under GCP /GLO/710/UK).

¹³ Burkina Faso, Congo-Brazzaville, Liberia, Senegal, Togo .

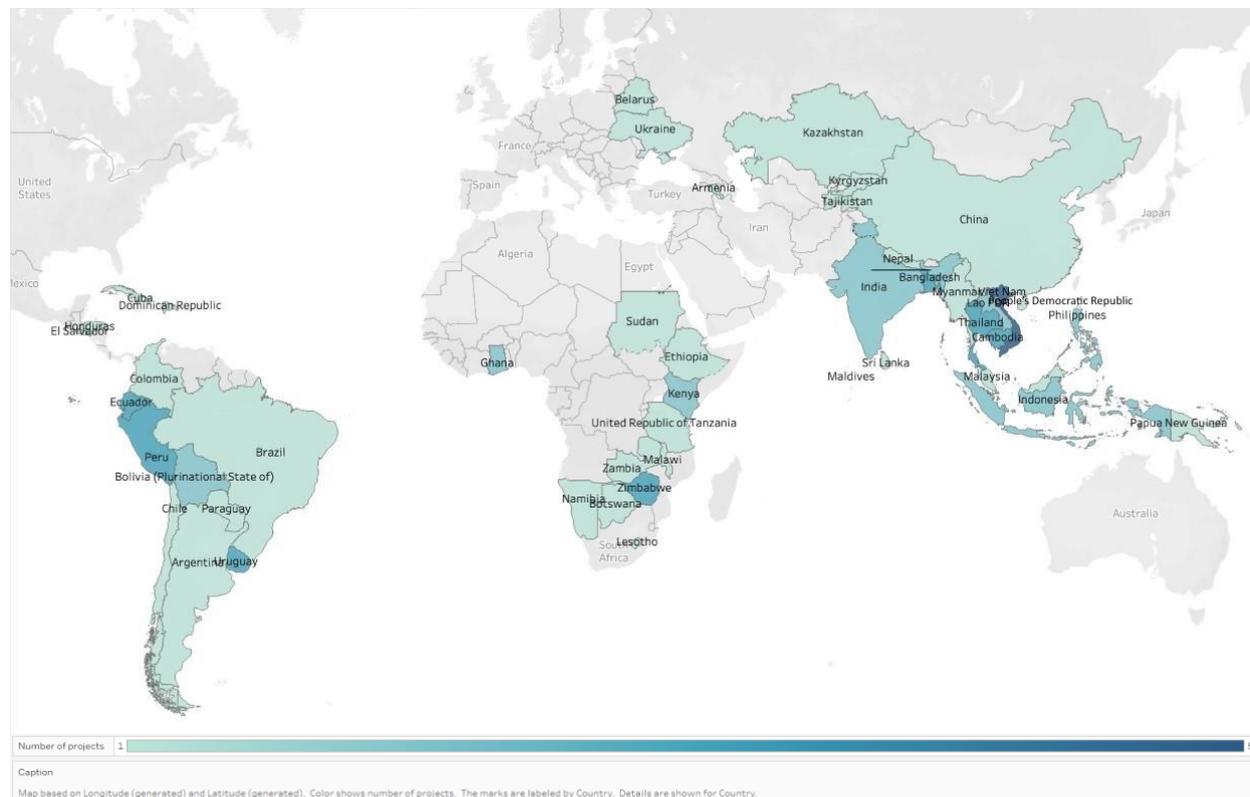
¹⁴ Codex normative work is also funded partly by WHO. Specific work on foodborne AMR is also funded by the Republic of Korea (by hosting the Codex Ad Hoc Intergovernmental Task Force on AMR).

¹⁵ Excluding the AMR MPTF contributions; insufficient information on precise contributions from the Global Health Security Agenda project and the core funding.

¹⁶ See Annex 1 for more details.

(RAP), and one in RNE. Most of the AMR funding is targeted towards Asia and Africa through projects funded by the Fleming Fund and USAID. Figure 2.1 maps the coverage by the projects and TCPs.

Figure 1: Geographic coverage of projects and Technical Cooperation Programmes (TCPs) on antimicrobial resistance (AMR)



Source: Created by evaluation team on Tableau software and based on AMR project documents. Modified to comply with [UN. 2020. Map of the World](#).

* Note: See Appendix 2 for more details; Additionally, the following countries were part of an ATCLASS training for national experts. 1. Benin, 2. Burkina Faso, 3. Cameroon, 4. Chad, 5. Central African Republic, 6. Côte d'Ivoire, 7. Democratic Republic of the Congo, 8. Congo, 9. Djibouti, 10. Gabon, 11. Guinea, 12. Madagascar, 13. Mali, 14. Niger, 15. Rwanda, 16. Senegal, and 17. Togo. GHSa project countries are not included in this map.

14. As mentioned earlier, the AMR projects and TCPs follow from the adoption of Resolution 4/2015 and FAO's involvement in the development of the GAP. The work has been implemented since October 2015 and has subsequently expanded. The USAID funded Global Health Security Agenda (GHSa) project has also recently started implementing its AMR activities in Africa¹⁷ since early 2020. Regarding the timeline of FAO's AMR projects, the bulk of them are still ongoing with an NTE towards the end of 2020 or after¹⁸. These constitute around 90 percent of the AMR funding.
15. The projects and TCPs are implemented by both the regional and country teams, and the Emergency Centre for Transboundary Animal Disease (ECTAD) where applicable (a joint platform between the FAO's Animal Health Service (AGAH) and the Emergency and Resilience Division (PSE)). Additionally, key AMR activities at the headquarters include work

¹⁷ Liberia, Senegal and Sierra Leone. Senegal and Sierra Leone have had selected GHSa AMR activities, since 2018.

¹⁸ The USAID funded GHSa project has an NTE of 2024.

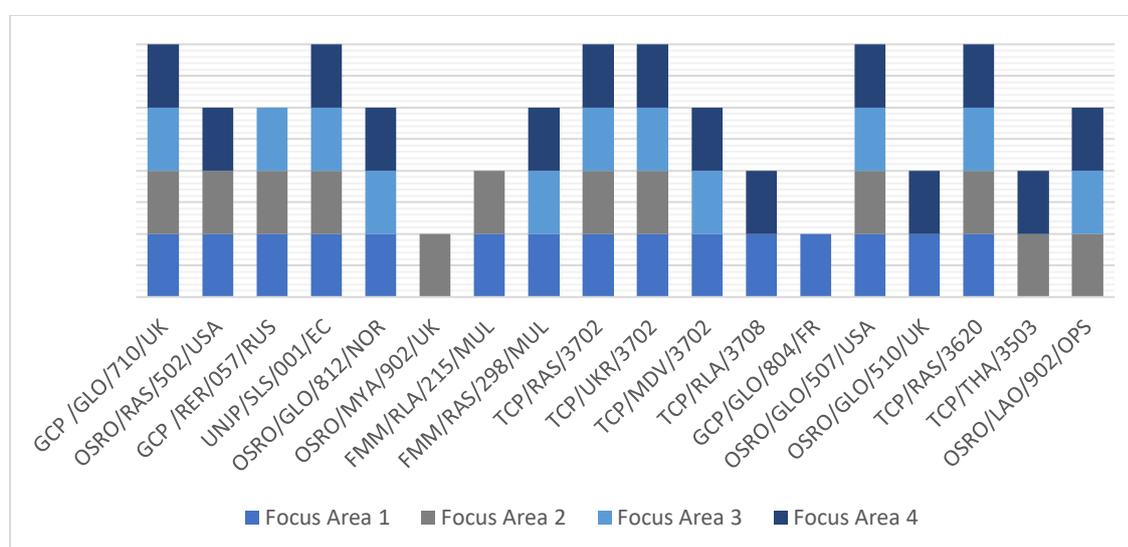
done by the Legal Office (LEGN) on the development of a Methodology for the analysis of AMR-relevant legal frameworks in the food and agriculture sector, AMR-lex legal database, on the AMR tools (the Assessment Tool for Laboratory and AMR Surveillance Systems (ATLASS) and the Progressive Management Pathways [PMP]), international regulatory work through the Secretariat of the Codex Alimentarius and the International Plant Protection Convention.

16. Project activities at regional and national level include support on preparation and implementation of National Action Plans on AMR, the analysis of regulatory frameworks, supporting laboratories and field work on AMR surveillance, promoting multi-sectoral 'One Health' coordination on awareness-raising and promoting the adoption of good practices for infection prevention and control, and responsible use of antimicrobials among food and agriculture stakeholders.. The projects are set with outputs and activities that are aligned with FAO's action plan on AMR (2016-2020). Each of the projects target one or more of the focus areas of the Action Plan. Figure 2.2 maps the project objectives against the four focus areas. The Norway funded project whilst aligned with FAO's AMR Action Plan also focuses on strengthening governance through AMR risk analysis and AMR legal framework analysis in Latin America, as well as testing the risk analysis tool in selected African countries. Other activities also include risk assessments and courses on AMR Susceptibility Testing and Antimicrobial Residue Analysis.
17. Through its AMR portfolio, FAO supports countries to develop cross-sectoral national AMR strategies and national action plans to reduce the threat of AMR in agriculture, aquaculture, forestry and the environment, and its impact on food systems. This can include the development of regulations that support responsible use of antimicrobials (AMU), detection and prevention of AMR, and establishment of surveillance systems with the long-term goal of slowing the development of AMR within the food and agricultural sectors. At the regional level, FAO's work involves engaging bodies such as the African Union and regional economic communities, for example the Southern African Development Community (SADC), Economic Community for West African States (ECOWAS), the Association of Southeast Asian Nations (ASEAN) and the South Asian Association for Regional Cooperation (SAARC), the Secretariat of the Andean Community (CAN), through the World Antibiotic Awareness week (WAAW) and through key activities around the FAO Action Plan on AMR (surveillance networks, evaluation and revision of regulatory frameworks/ legislation, formulating AMR Communication strategies etc.). Additionally, regional activities also include establishment and support of AMR/AMU Technical Advisory Groups.
18. Additionally, through the Tripartite, FAO is also significantly involved with the monitoring and evaluation framework for the Global Action Plan on AMR¹⁹, which includes a Tripartite AMR Country Self-assessment survey (TrACSS) for monitoring the implementation of AMR national action plans. Other activities under the tripartite include regional and country level collaboration, development of a database to monitor AMU, the development of a Global Framework for Development and Stewardship to Combat AMR, and more recently the collaboration with the OIE and the WHO on the development of a One Health legal assessment tool on AMR-relevant legislation.

¹⁹ Tripartite Monitoring and Evaluation Framework for the Global Action Plan on AMR, 2019.

19. There are numerous other initiatives and works with AMR components for example, FAO Regional Office for Europe and Central Asia (REU) collaboration with the Swedish University of Agricultural Sciences (SLU) to develop a manual of practical approaches to the use of antimicrobials by veterinarians and livestock producers and engagement with industry bodies²⁰. FAO is a key player in global activities including, among others, the Global AMR Research and Development Hub, the OIE ad-hoc working group on AMR, the Joint FAO/WHO Expert Meeting in collaboration with OIE on Foodborne Antimicrobial Resistance: Role of the Environment, Crops and Biocides, the OECD led Expert Steering Group on AMR, and the Ad hoc Codex Intergovernmental Task Force on Antimicrobial Resistance (TFAMR). FAO also supports the establishment of a global network on AMR. Ten institutions have been identified to be or in the process of becoming FAO Reference Centres for AMR (Five²¹ have been designated and four were selected as candidates for FAO Reference Centers on Aquaculture Biosecurity).

Figure 2: Mapping project objectives against the AMR Action Plan (2016-21) focus areas



Source: Project documents

3. Evaluation purpose

20. This evaluation aims to provide accountability for results achieved through the work on AMR. In this regard, the evaluation will seek to trace the contribution of FAO's interventions, and assess results so far evident at global, regional and national levels. The evaluation will also seek to draw lessons from the implementation processes that could inform future discussions and decisions by then programme teams²², donors, FAO Senior Management, FAO governing bodies, national governments and the tripartite plus organisations on the role of FAO in the international AMR architecture.
21. Additionally, this evaluation will also have a strong learning dimension that will provide feedback on the implementation of AMR activities for the FAO programme teams and the

²⁰ Prudent and efficient use of antimicrobials in pigs and poultry, FAO, 2019.

²¹ Five designated FAO Reference Centres for AMR: Denmark, Germany, Thailand, UK and US.

²² Programme team refers to all FAO personnel work on AMR work including the project technical staff.

Senior Management. Emphasising on how these activities support a multisectoral and 'One Health' approach, and whether there is a programmatic, cohesive strategy with common milestones across global, regional and country levels.

22. The FAO Action Plan on AMR ends in 2020 and a new strategy on AMR is currently being developed by FAO. The findings and recommendations from this evaluation will be used to complement the new strategy as well as providing insights on the strategic vision of FAO's role and work on AMR for the next phase.

4. Evaluation scope

23. Initially, the evaluation had been envisioned as the final evaluation of the Fleming Funded project ending in September 2020. However, the 163rd Programme Committee in November 2019, requested that the Office of Evaluation, if feasible, expands the evaluation of the project funded by the Fleming Fund to include the programmatic aspects of FAO's work on AMR. Based on the request, this evaluation will assess the entire work of FAO on AMR as described under Section 2.1 as well as FAO's positioning and role on AMR. Given that the key momentum for FAO's AMR activities can be traced back to the adoption of the Resolution 4/2015 at the Thirty-ninth Session of the FAO Conference, this evaluation will focus on FAO's work on AMR from 2015 to early 2020 (five years of AMR activities).
24. Since the bulk of FAO's work on AMR is recent, with activities that have long impact pathways, this evaluation will assess FAO's progress on achieving results and the likelihood of effectiveness at the global, regional and national level. It will cover both programmatic and operational aspects. It will examine current technical capacities for AMR within the divisions and offices engaged through the AMR Working Group and related regional and national capacity. It will assess FAO's internal structures to ensure that the delivery modalities and institutional arrangements are appropriate to the aims of the AMR Action Plan (2016-20). This will be of particular importance in this case since the work on AMR spans multiple departments and divisions, and is implemented by the headquarters, regional offices, country offices as well as ECTAD offices where applicable.
25. This evaluation will not cover in detail projects that have just recently started on AMR. However, these projects will play an important role in understanding the future role of FAO on AMR. These include the USAID funded GHSA project with AMR as one of its action packages (OSRO/GLO/507/USA), the recent partnership with Mars Incorporated and the European Commission funded project in Latin America (UNJP/SLS/001/EC).
26. For the AMR project in Asia (OSRO/RAS/502/USA), this evaluation will use inputs from the Emerging Pandemic Threats-II (EPT-2) programme evaluation since the project has recently been evaluated as part of the programme. However, it will look into any developments since then and activities not covered in detail by the EPT-2 programme evaluation. Due to overlapping programme implementation teams and partnerships, this evaluation will draw upon the EPT-2 evaluation for findings on FAO's institutional set-up, partnerships with OIE and other bodies, among others. Additionally, the Evaluation Team Leader from the EPT-2 evaluation has also been engaged as an advisor on this evaluation to make the most of the evaluation work done in the context of the EPT-2 evaluation.

5. Evaluation objective and key questions

27. The evaluation has two major dimensions to it. Firstly, the organizational and institutional set-up of the AMR work that, by the nature of the AMR problem, must be multi-disciplinary and multi-sectoral, take a One Health approach and utilise strategic partnerships. Secondly,

the effectiveness of FAO in achieving overarching goals such as supporting countries to reduce or optimise the use of antimicrobials in order to address AMR. The latter includes a range of outputs and outcomes that are described in the AMR Action Plan (2016-2020). These have been depicted in a draft TOC for work carried out between 2015 and 2020 (See Appendix 3)²³ and includes the major components of the AMR specific projects described in section 2.1 (Project Portfolio).

28. The evaluation will assess the ability of FAO, with its current capacities, internal institutional structures and external partnerships, to respond to requests from both the international community and particular countries for support in developing and implementing AMR National Action Plans.
29. The following key evaluation questions will guide the overall assessment. Sub-questions and specific methodological approaches will be further developed in the inception report.
 - a. The relevance of FAO's AMR work in terms of having the correct strategy and the right activities to respond to the national, regional and global needs, particularly in terms of the FAO Action Plan's major Focus Areas:
 - i. improve awareness on AMR and related threats;
 - ii. develop capacity for surveillance and monitoring of AMR and antimicrobial use (AMU) in food and agriculture;
 - iii. strengthen governance related to AMU and AMR in food and agriculture;
 - iv. promote good practices in food and agriculture systems and the prudent use of antimicrobials.

This review of relevance will also examine any changes in context over the past five years to assess the extent to which FAO AMR work has adapted to remain relevant. It will also assess the extent to which FAO's work reflects the full extent of its comparative advantage at the national, regional and global level;
 - b. The internal and external coherence of FAO's AMR work. Internal coherence addresses the synergies and linkages within FAO across other projects implemented and work carried out. External coherence considers the consistency of FAO's AMR work with the AMR interventions of key international, regional and national partners. This includes complementarity, harmonisation and co-ordination with those partners, and the extent to which the collaboration is adding value while avoiding duplication of effort;
 - c. The likelihood of effectiveness in terms of the AMR related results achieved. Since most of FAO's work on AMR is recent with activities that have long impact pathways, this evaluation will assess FAO's progress on achieving results. Questions will be posed about factors that have contributed to the achievement or non-achievement of the intended outcomes, including: (i) overall development and utilisation of Monitoring, Evaluation and Learning (MEL); (ii) the development of data platforms for AMR related to food and agriculture including related legislation; (iii) how FAO has utilised communication tools and products.

²³ This Theory of Change was developed by the evaluation team as a discussion tool. The inputs, outputs, outcomes and impacts depicted are broadly based on the Fleming Fund's Global TOC but adapted to reflect key outputs and outcomes mentioned in FAO Action plan for AMR. The TOC depicted in Figure 5.1 is a draft and it is expected that it will be revised as the evaluation progresses and more knowledge is gained.

- d. The efficiency of AMR initiatives in terms of their timeliness and cost-effective implementation, use of human and material resources. The evaluation will also assess the efficiency of the Organizational set-up for managing AMR, including the coordination of AMR projects and activities. There may be unintended effects from related FAO work, for example, laboratory and epidemiology capacity development work within the EPT2 and GHSA initiatives that have supported the AMR work, or vice versa, will be noted.
 - e. The sustainability of the work in terms of the extent to which the net benefits will continue at national and regional levels once FAO support is reduced or re-orientated. Assessment of sustainability would include all three dimensions of FAO's Capacity Development (CD) Framework (individual level; organisation level; and enabling environment level). Activities related to individual and organisational CD contribute to a sustainable resource of expertise, knowledge, training capacity, networks and institutions for AMR. Additionally, enabling environments include policy or regulatory changes attributed to FAO that support capacity to address AMR and/or result in resource utilisation and mobilisation for AMR.
 - f. The evaluation will assess whether the following cross-cutting issues have been sufficiently incorporated into FAO's AMR work.
 - i. Gender equality and other equity issues: has gender equality been sufficiently incorporated into the AMR work and how gender related work has influenced effectiveness and outcomes. Whilst FAO's AMR Action Plan (2016-20) does not mention gender, some AMR funding proposals to donors and project documents do mention gender. These questions would also extend to other disadvantaged members of the society.
 - ii. One Health approach: given the emphasis stakeholders have provided on the multi-disciplinary and multi-sectoral nature of the AMR problem and the need to recognise the interconnectedness of human health, animal health, and environment health, the evaluation will examine how FAO has supported a One Health approach through its work on AMR.
30. The evaluation will not assess the social, economic or environmental impact of FAO AMR work at this stage as this is a specialised task and the AMR work is still relatively new. However, the evaluation will note anecdotal reports of impact related to any outcomes achieved.

6. Methodology

31. Given the broad scope, this evaluation will use multiple frameworks against which FAO's work on AMR can be assessed. These frameworks would guide the evaluation and the further development of the evaluation questions. These would include:
- a. the draft TOC (Appendix 3) – developed based on the FAO Action Plan on AMR and the project documents. During the course of the evaluation the evaluation team will work with informants to refine the TOC to best represent FAO's AMR work. This will include testing assumptions about impact, mapping links between particular outputs / outcomes to identify necessary preconditions and perhaps adding areas of work that are missing in the draft;
 - b. the Tripartite agreements – these include the 2010 Tripartite Concept note, the 2018 Memorandum of Understanding, the Tripartite M&E framework and the Global Framework for Development and Stewardship to Combat AMR;

- c. the FAO Action Plan on AMR – even though the focus areas of the Action Plan are reflected in the draft TOC, the Action Plan will be used as a key framework in assessing FAOs work as all activities on AMR are planned to be directly aligned to the Action Plan.
32. As highlighted in Section 5, the evaluation covers a broad and diverse range of components. In order to capture accurately all the different aspects of the AMR work, the evaluation will use a mixed set of methodological approaches and evidence sources. The evaluation will adopt a consultative and transparent approach with internal and external partners, stakeholders and platforms. Triangulation of evidence will underpin the evaluation's validation and analysis and will support conclusions and recommendations.
33. The evaluation will benefit from a desk review of existing documents and other secondary data. Relevant documents for the evaluation include: the WHO-led Global Action Plan on Antimicrobial Resistance, reports and recommendations of the Ad hoc Interagency Coordination Group on Antimicrobial Resistance, FAO's AMR Action Plan (2016-20), the OIE/WHO/FAO Tripartite Agreement, the EPT2 evaluation report, relevant resolutions of the FAO conference 2015 and 2019 including the 2019 FAO progress review on antimicrobial resistance, outputs of the Ad hoc Codex Intergovernmental Task Force on Antimicrobial Resistance (TFAMR) and the UNEP Frontiers Report on the environmental dimension of antimicrobial resistance.
34. The evaluation will make use of primary data sources including semi-structured key informant interviews with FAO staff (at HQ, regional and country-level), tripartite and donor representatives, government officials, FAO implementing partners (including technical experts and senior management in relevant UN agencies, NGOs, technical agencies, etc.), animal, plant, human health practitioners and environmental experts and any relevant private sector service providers at global, regional and national levels. Protocols for interviews will be developed by the evaluation team prior to the evaluation data collection phase.
35. The evaluation will focus on a select number of countries targeted by FAO through its AMR activities, to gather region and country-level evidence and provide an in-depth assessment of outcomes and achievements. Following consultations with the AMR working group and regional offices and recognising that country visits by the EPT2 evaluation team addressed AMR related investigation, a sample of countries have been selected for the deeper country level analysis: Armenia, Thailand, Cambodia, Ghana and Zimbabwe. This tentative list will be confirmed by the inception report. Other countries targeted by AMR projects not selected for this deeper analysis will be consulted remotely, using semi-structured interviews.
36. The evaluation scoping phase started as part of the EPT2 evaluation and a subsequent analysis of the portfolio of projects in early 2020. The preparation of an inception report will occur in April 2020. The inception report will complement the TOR and contribute to guide the evaluation: it will provide parties involved in the evaluation with a mutual understanding of the organization of the work. It will encompass the draft theory of change (TOC), a stakeholder analysis, detailed information on the evaluation approach and methodology, the evaluation matrix, information and justifications for the country visits, and an update of the limitations and risks, timeline and deliverables of the evaluation
37. The final evaluation report is expected in December 2020 (see section 10 below).

6.1 COVID-19 adjustments

38. Given the risks associated with COVID-19 and to avoid further burdening government counterparts, especially considering that key interlocutors might be involved with the COVID-19 response, this evaluation will be conducted in two phases. The first phase would focus on the role of FAO on AMR at the global level and the second on FAOs work on AMR at the country level. The first phase of data collection is expected to be carried out in May 2020 and the second phase in August/September 2020. As bulk of FAOs work on AMR is implemented at the country level by FAO teams and in collaboration with government counterparts, the second phase will form an essential component of the evaluation.
39. The analysis of the first phase will be based on semi-structured remote interviews and an in-depth review of relevant documentation. This phase would delve into the role of FAO on AMR in the context of the tripartite plus partnership and its future positioning on AMR. Preliminary findings will be drafted at the end of this phase and will guide the country level analysis of the second phase. The key interlocutors for the first phase would be FAO staff at headquarters, FAO partner organisations (UNEP, WHO, OIE), donors and the private sector involved with AMR.
40. The second phase of the evaluation will focus on the work done and FAOs role at the country level. Depending on the COVID-19 situation in August 2020, the data collection would be either conducted through country visits or through virtual meetings with key national/regional stakeholders. This would also be an opportunity for the evaluation team to revisit and validate its findings from the first phase for a more robust approach. The purpose of the delay in conducting the second phase is to give enough time for FAO country teams and government counterparts to recover from any shocks that might have occurred due to the COVID-19 outbreak.

7. Evaluation team composition and profile

41. The evaluation team (ET) consists of two external independent consultants: an evaluation team leader (ETL) and an AMR specialist. The team will work under the guidance of the OED Evaluation Manager. The external consultants selected for this evaluation, have experience and expertise in two or more of the following areas: antimicrobial resistance, veterinary science/public health, epidemiology or a related field. Both consultants have some experience in evaluation, and a good knowledge of at least one of the regions where AMR projects have been implemented (Africa, Eastern Europe, Central Asia, South and Southeast Asia, Latin America).
42. The evaluation team should be independent from any organizations that have been involved in designing, executing or advising any aspect of the AMR projects.
43. The Team Leader of the evaluation of the EPT2 will act as technical advisor to the OED Evaluation Manager and will ensure that the present Evaluation benefits from the wealth of information collected during the evaluation of EPT2.
44. Additionally, given the technical nature of this evaluation, OED will also engage an AMR Expert Panel comprising of experts in the field of AMR either independent or part of key organisations working on AMR. The purpose of the Panel would be to support the evaluation with an advisory role aimed at enhancing the quality of the evaluation. The Panel will be engaged at two stages of the evaluation, to provide inputs on evaluation matrix and methodology as developed in the inception report and to comment on the draft report to ensure technical soundness.

8. Roles and responsibilities

45. The FAO Office of Evaluation (OED), in particular the evaluation manager (EM) develops the first draft TOR with inputs from the AMR programme team. The TOR includes a draft theory of change (TOC) and is based on a review of documents and preliminary discussions with the AMR programme team. The EM is responsible for the finalization of the TOR and of the identification of the evaluation team members²⁴. EM shall brief the evaluation team on the evaluation methodology and process and will review the final draft report for Quality Assurance purposes in terms of presentation, compliance with the TOR and timely delivery, quality, clarity and soundness of evidence provided and of the analysis supporting conclusions and recommendations in the evaluation report.
46. The AMR Programme Team (PT)²⁵ is responsible for providing inputs to the first version of the Terms of Reference, especially the description of the background and context chapter, and supporting the evaluation team during its work. Assist the EM in the identification of key informants and in the organization of country visits and/or the in-depth interviews. They are required to participate in meetings with the evaluation team, as necessary, make available information and documentation, and comment on the Terms of Reference and the draft report. Involvement of different members of the AMR programme team will depend on respective roles and participation in the project.
47. An internal Evaluation Reference Group (ERG) will offer a privileged point of contact between the evaluation team and the AMR programme team. This will be a multidisciplinary group representing all departments that work on AMR. It will comprise of the FAO AMR coordinator and key members from the FAO AMR Working Group, including projects' lead technical officers, whose knowledge of the subject under evaluation will provide an appropriate overview and capacity to guide the evaluation team in key decisions. The ERG will discuss with the evaluation team on a regular basis and receive regular updates on the evaluation conduct. It will provide key feedback on the various products of the evaluation, including the TOR and the draft report. It will be responsible for leading and coordinating the preparation of the FAO Management Response and the Follow-up Report to the evaluation. The ERG is required to follow OED guidelines for the Management Response and the Follow-up Report provide necessary details on this process.
48. OED has a responsibility in following up with the ERG for the timely preparation of the Management Response (MR) and Follow-up Report to the evaluation.
49. The evaluation team (ET) is responsible for further developing and applying the evaluation methodology, for conducting the evaluation, and for producing the evaluation report. All team members, including the Evaluation Team Leader (ETL), will participate in briefing and debriefing meetings, discussions, field visits, and will contribute to the evaluation with written inputs for the final draft and final report. The evaluation team will agree on the outline of the report early in the evaluation process, based on the template provided by OED. The ET will also be free to expand the scope, criteria, questions and issues listed above, as well as develop its own evaluation tools and framework, within the available time and

²⁴ The responsibility for the administrative procedures for recruitment of the team, will be decided on a case-by-case basis.

²⁵ Programme team throughout the document refers to all FAO personnel involved in implementing the programme. These would also include the lead technical officers and the budget holders.

resources and based on discussions with the EM and consults with the AMR Programme Team where necessary. The ET is fully responsible for its report which may not reflect the views of the Government or FAO. An evaluation report is not subject to technical clearance by FAO although OED is responsible for quality assurance of all evaluation reports.

50. The ETL guides and coordinates the ET members in their specific work, discusses their findings, conclusions and recommendations and prepares the final draft and the final report, consolidating the inputs from the team members with his own.

9. Evaluation products (deliverables)

51. This section describes the key evaluation products the evaluation team will be accountable for producing. These products include:

- i. the evaluation TOR;
- ii. an inception report for the use of the team and OED including an evaluation matrix and a stakeholder analysis: the evaluation matrix will show how each evaluation question will be answered by way of: proposed methods, proposed sources of data and data collection procedures, and interview guides for relevant country-level stakeholders;
- iii. country reports (not for publication, but for the evaluation team's internal use, to feed into the final analysis);
- iv. draft evaluation report: the AMR Programme Team and key stakeholders in the evaluation should review the draft evaluation report to ensure that the evaluation meets the required quality criteria. The draft report should illustrate the evidence found that responds to the evaluation questions listed in the TOR;
- v. final evaluation report: the final evaluation report should include an executive summary. The report will be prepared in English with numbered paragraphs, following the OED template for report writing. Supporting data and analysis should be annexed to the report when considered important to complement the main report. Translations in other languages of the Organization, if required, will be FAO's responsibility.
- vi. evaluation brief and other knowledge products or participation in knowledge sharing events, if relevant.

10. Evaluation timeline

52. The evaluation will be conducted according to the following time frame:

Table 1: Evaluation timeline

Task	Dates	Responsibility
Launch of the evaluation	November 2019	BH/OED ²⁶
TOR finalization	April 2020	OED with inputs from PT
Team identification and recruitment	February – April 2020	OED
Reading background documentation provided by PTF	March – April 2020	ET
Inception mission	March 2020	OED
Inception report	April 2020	ETL
Phase 1 Stakeholder remote interviews	May -June 2020	ET
Phase 1 Draft findings and preliminary analysis based on remote interviews and secondary data	June 2020	ETL and OED for comments and quality control
Phase 2 Organization of the Evaluation Mission (virtually in case no travel is possible - meetings arrangements with projects' stakeholders and partners etc.)	August 2020	OED
Phase 2 Evaluation mission to country and regional offices or Virtual missions	August- September 2020	ET
Preliminary analysis and debriefing	October 2020	ET
Evaluation Report zero draft for circulation in FAO	October 2020	ETL and OED for comments and quality control
Evaluation Report first draft for circulation with external stakeholders	November 2020	ETL and OED for comments and quality control
Evaluation Report final draft for circulation	November 2020	ETL and OED for comments and quality control
Validation of the recommendations	December 2020	ET to the PT
Final Report, including publishing and graphic design	December 2020	OED
Presentation of the evaluation findings, conclusions and recommendations to the Programme Committee	May 2021	OED
Management Response	1 month after the Final report is issued	BH
Follow-up report	1 year after the Management Response is issued	BH

²⁶ BH- Budget Holder; OED- Office of Evaluation; PT- AMR Programme Team; ET- Evaluation Team; ETL- Evaluation Team Leader.

Appendix 1. List of FAO AMR projects

	Project Symbol	Project Name	Start date	End date	Budget	Region/Country
1	GCP /GLO/710/UK ²⁷	Engaging the food and agriculture sectors in Sub-Saharan Africa and South and South-east Asia in the global efforts to combat antimicrobial resistance using a One Health approach (Gender marker: G2a)	1-Sep-16	30-Sep-20	10 713 835	Africa and South East Asia
2	OSRO/RAS/502/USA	Addressing Antimicrobial Usage in Asia's Livestock Production Industry (Evaluated through EPT2 evaluation)	1-Oct-15	31-Jul-20	6 350 000	Asia
3	GCP /RER/057/RUS ²⁸	Reducing the Advance of Antimicrobial Resistance in Food and Agriculture (Gender marker: G2a)	30-Mar-17	30-Nov-21	3 250 000	Central Asia
4	UNJP/SLS/001/EC	Trabajando juntos para combatir la Resistencia a los Antimicrobianos	01-Feb-2020	31-Jan-2023	1 855 163	Latin America
5	OSRO/GLO/812/NOR ²⁹	Risk Analysis, risk communication and governance support for sustainable management of antimicrobial resistance in food production systems	1-Dec-18	30-Nov-20	1 346 818	HQ (86% funding), Latin America (14%)
6	OSRO/MYA/902/UK	Antimicrobial Monitoring in Poultry, Myanmar	01-Sep-2019	31-Aug-2021	1 377 850	Myanmar
7	FMM/RLA/215/MUL	Apoyo para el desarrollo de planes nacionales de Resistencia a los Antimicrobianos en América Latina	05-Dec-2016	31-May-2018	750 000	Latin America
8	FMM/RAS/298/MUL	Strengthening capacities, policies and national action plans on aquatic AMR	17-Jan-2017	31-May-2018	565 714	South East Asia
9	TCP/RAS/3702	Support mitigation of Antimicrobial Resistance (AMR) risk associated with aquaculture in Asia	01-Feb-2019	31-Jul-2021	462 000	Asia
10	TCP/UKR/3702	Strengthening national capacities to address Antimicrobial Resistance (AMR) risks	01-Feb-2019	31-Jan-2021	253 000	Ukraine
11	TCP/MDV/3702	Supporting the veterinary and aquaculture sector in the Implementation of the National Action Plan for Containment of Antimicrobial Resistance	11-Jul-2019	30-Jun-2021	198 000	Maldives

²⁷ Key project for this evaluation.

²⁸ Key project for this evaluation.

²⁹ Key project for this evaluation.

	Project Symbol	Project Name	Start date	End date	Budget	Region/Country
12	TCP/RLA/3708	Contención de la Resistencia a los Antimicrobianos en los sistemas de producción de alimentos terrestres y acuáticos, bajo el enfoque Una Salud.	01-Nov-2018	30-Oct-2020	145 000	Latin America
13	GCP/GLO/804/FR	Support to the organization of a specialist consultation meeting on FAO Progressive Management Pathway (PMP) on Antimicrobial Resistance (AMR)	01-May-2017	30-Apr-2019	91 273	Global
14	OSRO/GLO/507/USA	Supporting the Global Health Security Agenda (GHSA) to address Zoonotic Disease and Animal Health in Africa (AMR activities only starting from 2020)	01-Oct-2015	31-Dec-2020	66 111 695	Global
15	OSRO/GLO/510/UK	Support to FAO for Developing a national strategy to reduce the threat of AMR	24-Dec-2015	31-Oct-2016	896 933	Global
16	TCP/RAS/3620	Strengthening One Health approaches for countries in the Asia Pacific Region.	01-Apr-2018	31-Dec-2019	490 000	Nepal, Papua New Guinea, Sri Lanka, Viet Nam
17	OSRO/LAO/902/OPS	Strengthening AMR/AMU Surveillance in the animal health sector in Lao PDR	05-Jun-2019	14-Apr-2021	1 053 231	Lao People's Democratic Republic
18	TCP/THA/3503	Enhancing National Capacities for Antimicrobial Resistance Risk Management in Animal Food Production in Thailand	12-Aug-2015	31-Dec-2017	242 000	Thailand

Appendix 2. List of Countries covered by AMR projects

	Country	Region	Number of projects
1	Argentina	RLC	1
2	Armenia	REU	1
3	Bangladesh	RAP	3
4	Belarus	REU	1
5	Bolivia	RLC	2
6	Botswana	RAF	1
7	Brazil	RLC	1
8	Cambodia	RAP	3
9	Chile	RLC	1
10	China	RAP	1
11	Colombia	RLC	1
12	Cuba	RLC	1
13	Dominican Republic	RLC	1
14	Ecuador	RLC	3
15	El Salvador	RLC	1
16	Ethiopia	RAF	1
17	Ghana	RAF	2
18	Honduras	RLC	1
19	India	RAP	2
20	Indonesia	RAP	2
21	Kazakhstan	REU	1
22	Kenya	RAF	2
23	Kyrgyzstan	REU	1
24	Lao People's Democratic Republic	RAP	2
25	Lesotho	RAF	1
26	Malawi	RAF	1
27	Malaysia	RAP	1
28	Maldives	RAP	1
29	Myanmar	RAP	1
30	Namibia	RAF	1
31	Nepal	RAP	1
32	Papua New Guinea	RAP	1
33	Paraguay	RLC	1
34	Peru	RLC	3
35	Philippines	RAP	2
36	Sri Lanka	RAP	1
37	Sudan	RNE	1
38	Tajikistan	REU	1
39	Tanzania	RAF	1
40	Thailand	RAP	3
41	Ukraine	REU	1
42	Uruguay	RLC	3

43	Viet Nam	RAP	5
44	Zambia	RAF	1
45	Zimbabwe	RAF	3

* Note: Additionally, the following countries were part of an ATCLASS training for national experts. 1. Benin, 2. Burkina Faso, 3. Cameroon, 4. Chad, 5. Central African Republic, 6. Côte d'Ivoire, 7. Democratic Republic of the Congo, 8. Congo, 9. Djibouti, 10. Gabon, 11. Guinea, 12. Madagascar, 13. Mali, 14. Niger, 15. Rwanda, 16. Senegal, and 17. Togo. GHSA project countries are not included in this map.

Appendix 3. Draft theory of change

