Progress report on the FAO Action Plan on Antimicrobial Resistance (AMR) 2021-2025

Executive Summary

This document is presented to support agenda item 2.4 of the 28th Session of the Committee on Agriculture (COAG): “Progress report on the FAO Action Plan on Antimicrobial Resistance (AMR) 2021-2025”.

The document provides an overview of progress made under the FAO Action Plan on AMR 2021-2025.

The document also offers an overview of FAO work on AMR in coordination with the World Health Organization (WHO), the World Organisation for Animal Health (OIE), and the United Nations Environment Programme (UNEP) (hereinafter referred to as the “Quadripartite”), and in collaboration with other partners.

Suggested action by the Committee

The Committee is invited to:

- acknowledge the key role of the Action Plan on AMR in guiding and facilitating FAO’s support to countries in minimizing and containing AMR for more resilient and sustainable agrifood systems;
- note the progress made on the FAO’s work on AMR despite the restrictions due to the COVID-19 pandemic;
- recommend FAO to keep implementing its Action Plan on AMR through a One Health approach in close collaboration with the Quadripartite;
- take note of the progress made in establishing the AMR Multi-stakeholders Partnership Platform and encourage relevant actors from the agriculture sector to actively engage in it;
- recommend to strengthen the generation and usage of AMR data in food and agriculture sectors for increasing advocacy and reinforcing the implementation of all Action Plan objectives; and
- encourage Members to provide voluntary contributions to support the implementation of the activities planned under the FAO Action Plan on AMR 2021-2025.
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I. Introduction

1. To support the implementation of the Global Action Plan for AMR, the 39th session of the FAO Conference adopted Resolution 4/2015\(^1\) on AMR. In June 2015, the FAO Action Plan on AMR 2016-2020 was developed to implement this resolution. As its implementation period has expired, a new FAO Action plan on AMR 2021-2025\(^2\) was approved by the 166th session of the Council.

2. The Programme Committee recommended that the Council endorse the AMR indicator as proposed during its 130th session. For the first time, the AMR indicator is being used to report progress.

3. The AMR related work is coordinated through the FAO AMR Working Group (WG), which was established in 2015 under the leadership of the FAO Chief Veterinary Officer. The AMR WG is composed of members from 11 units, including animal production and health, fisheries and aquaculture, food safety, soil and water, plant production and protection, the legal office, and corporate communications, as well as members in regional and liaison offices. FAO has also developed a leadership team composed of two co-leaders for each of the five objectives in the new AMR Action Plan to facilitate planning and implementation of activities.

4. Various coordination mechanisms have been created at regional, subregional and national levels to strengthen support to the implementation of AMR activities. Regional workshops and training have been organized to share experiences and to facilitate the identification of potential areas that would benefit from a harmonized regional or subregional approach.

5. International coordination on AMR is organized between the Quadripartite (FAO, WHO, OIE and UNEP), and other partners. Before the establishment of the Quadripartite in March 2022, the coordination was organized between the Tripartite (FAO, WHO and OIE) and UNEP. For the purpose of this document, for activities up to March 2022 reference is made to the Tripartite, as applicable.

II. Progress on the FAO Action Plan on AMR

6. The FAO Action Plan on AMR 2021-2025 sets out two main goals:
   - reduce AMR prevalence and slow the emergence and spread of resistance across the food chain and food and agriculture sectors; and
   - preserve the ability to treat infections with effective and safe antimicrobials to sustain food and agriculture production.

7. The implementation of the FAO Action Plan on AMR contributes to the AMR indicator in the FAO Strategic Framework 2022-31, which shows the overall level of implementation of national action plans in countries where FAO provides AMR support in the food and agriculture sectors. The measurement of this indicator is based on the self-reporting by Members of results through the Tripartite\(^3\) Country Self-Assessment Questionnaire.

8. The indicator for the period 2020-2021 reflects an overall level of implementation of 48.92 percent against the 47.89 percent for the period 2019-2020.


   *Increasing stakeholders’ awareness and engagement.*

10. FAO is implementing various AMR projects that deliver activities in this area at global, regional and country level.

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\(^1\) [https://www.fao.org/3/MO153E/MO153E01.htm#Resolution4](https://www.fao.org/3/MO153E/MO153E01.htm#Resolution4)


\(^3\) On 17 March 2022, the Directors General of FAO, OIE, and WHO, and the Executive Director of the United Nations Environment Programme (UNEP), signed a Memorandum of Understanding for collaborative One Health work, renaming the group the “Quadripartite,” reflecting equal participation of all four partners. Prior to the establishment of the Quadripartite, Tripartite and UNEP is mentioned in the text.
11. In July 2021, the FAO communications division organized a knowledge-sharing session on the impact of storytelling. These stories are being used to demonstrate FAO’s expertise on its different channels such as the website, social media, publications, and podcasts. A mission took place in Ghana in early November 2021, entitled “Proof of concept: Refining and Implementing Evidence-based Solutions Developed by the AMR Behaviour Change Community of Practice”.


13. FAO also organized a virtual “Expert consultation on the sustainable management of parasites in livestock challenged by the global emergence of resistance”. The Consultation advised FAO to develop guidelines for the strategic control and management of acaricide and trypanocidal drug resistance and called for strengthened advocacy, awareness and resource mobilization to curb the problem.

**Strengthening surveillance and research.**

14. FAO completed an exploratory analysis of requirements to inform the development of an IT solution for the International FAO AMR Monitoring (InFARM) data platform and is working for prototype development with the support of an IT company. This data platform will support national, regional and global surveillance efforts, providing countries with a mechanism to initially host and analyse AMR data from terrestrial and aquatic animals and food, and complementing the integration of data from other sectors under the Tripartite Integrated System for Surveillance of AMR/Antimicrobial Use (AMU) (TISSA).

15. FAO continued its efforts to facilitate the development of the Codex Alimentarius Guidelines on integrated monitoring and surveillance of foodborne AMR.

16. In May 2021, within the Tripartite collaborative regional project “Working Together to Fight Antimicrobial Resistance”, six virtual training sessions on the laboratory module of FAO Assessment Tool for Laboratories and AMR Surveillance Systems (FAO-ATLASS) were conducted in Latin America.

17. FAO has also conducted the following activities in Asia and the Pacific: development of regional AMR monitoring and surveillance guidelines for bacterial pathogens from terrestrial and aquatic animals.

18. In Eastern Africa, the AMR/AMU Technical Advisory Group was established, and the AMR monitoring and surveillance guideline for bacteria from healthy food-producing animals is under finalization.

19. In September 2021, within the Europe and Central Asia region, FAO has supported Armenia by conducting a laboratory training on international standards for antimicrobial susceptibility testing for national experts. In addition, samples are being collected from the field to produce baseline AMR surveillance data in food-producing animals and food.

**Enabling good practices.**

20. In collaboration with FAO Reference Centre in the United Kingdom, FAO has developed an introductory module of AMR e-learning courses with five lessons. In August 2021, FAO deployed a six-week course titled “Poultry farmer field school refresher course for facilitators and master trainers with a focus on antimicrobial resistance”. It was the first online course delivered through the Farmer Field School, and two countries from Southern Africa (Zambia and Zimbabwe) participated.

21. A tool to assess the implementation of Infection Prevention and Control (Agri-IPC), including water, hygiene, sanitation, and wastewater management (Agri-WASH), was developed.

22. Through the 2020 poultry housing design competition, the FAO-FAVA (Federation of Asian Veterinary Association) collaboration also generated several small-scale poultry housing designs that highlighted the importance of farm biosecurity and reinforced good animal husbandry practices. In
2021, on the second round of this collaboration, a pig housing design contest with consideration for biosecurity was carried out. FAO is working closely with feed sector stakeholders (e.g., feed industry and regulators) to promote the animal nutrition practices that reduce AMU identified in the FAO publication *Animal nutrition strategies and options to reduce the use of antimicrobials in animal productions*.

**Promoting responsible use of antimicrobials.**

23. FAO has developed several initiatives for AMU in different regions, including the following activities:

a. A set of surveys on the knowledge, attitude, and practices (KAP) associated with AMU patterns was conducted in Africa, Asia and the Pacific, and Europe and Central Asia regions. The outputs of a KAP survey in the Lao People's Democratic Republic was published, resulting in a better understanding of drivers and motivations of using antibiotics in the country’s livestock industry. Results also contributed to shaping the country’s AMR communication and advocacy campaign.

b. A guideline on AMU monitoring at farm level in collaboration with OIE is under development.

c. Surveys assessing the state of adherence of pig farms to recommended practices on prudent use of antimicrobials were conducted in Cambodia, Indonesia, and Viet Nam.

d. FAO, in collaboration with WHO and OIE, is working towards strengthened engagement from the animal feed industry in the fight against AMR in Latin America and the Caribbean through an AMR project funded by the European Union (EU).

e. Support is being provided to India, Indonesia, and Viet Nam in the mitigation of AMR risk associated with aquaculture, through improved understanding of related AMR/AMU problems.

**Strengthening governance and allocating resources sustainably.**

24. FAO has continued working on the implementation of its methodology to revise and update the relevant legislation for AMR/AMU in food and agriculture sectors in more than 25 countries of Africa, Asia, Europe and Latin America. Furthermore, with the financial support of the AMR Multi-Partner Trust Fund (AMR MPTF), in collaboration with WHO and OIE and with inputs from UNEP, FAO is leading the work to upgrade its methodology and develop a “One Health Legislative Assessment Tool for Antimicrobial Resistance” that will cover all sectors, including human health.

25. With the financial support of Norway, the Organization prepared a legal report that analysed the national legal frameworks of Bolivia, Ecuador, Peru and Uruguay, as well as the Andean Community. Reports on AMR institutional coordination, including aspects of policy and legislation, were developed for Argentina, Chile, Colombia, Paraguay, Peru and Uruguay.

26. The countries in the Southern African Development Community (SADC) were supported in reviewing their regional model regulation on veterinary medicines and in assessing its implementation at national levels.

27. Other countries such as Armenia, Azerbaijan, Mozambique, Tanzania, and Zimbabwe, initiated or completed national analysis of AMR-relevant legislation.

28. A virtual regional workshop on legislation to address AMR and AMU in Africa brought together more than 300 participants, including AMR/AMU experts and legal experts from different sectors to identify the legal areas and instruments relevant for AMR/AMU, as well as to discuss potential options for addressing AMR through national and regional regulatory frameworks.

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5 See AMR MPTF webpage with all relevant info on funding status, projects and progress reports in this link: https://mptf.undp.org/factsheet/fund/AMR00
29. FAO has also been working to strengthen laws and regulations governing AMU in aquaculture in Asia. The Organization has also provided capacity building on good management practices for farmers to implement them in animal health management and biosecurity control for prudent and effective AMU associated with aquaculture in India, Indonesia, and Viet Nam.

30. Hybrid workshops of the FAO Progressive Management Pathway for AMR (FAO-PMP-AMR) to support countries in implementing their AMR National Action Plans (NAPs) in food and agriculture activities were conducted in Lao PDR, Morocco, Nigeria, Senegal and Sierra Leone.

31. The One Health Multi-Lateral Funding programme (MUL) was developed to support FAO’s One Health activities, with four major outcomes built on the seven thematic components of the “One Health” Programme Priority Area (One Health PPA), in which AMR risk management is one of them. The One Health MUL will be implemented at global, regional and national levels.

### III. Quadripartite Collaboration on AMR

32. The Tripartite Joint Secretariat coordinated and developed the Tripartite and UNEP Strategic Framework (the Framework) with clear five-year strategic objectives and long-term visions in 2021. The Framework:

- presents the background and context for the collaboration between the Tripartite and UNEP on AMR;
- describes the Tripartite and UNEP comparative advantage and catalytic role in the One Health response to AMR in support of efforts made by their members, civil society, the private sector, and other stakeholders; and
- introduces a theory of change that includes the Tripartite and UNEP goals, objectives, desired impact at country level, intermediate outcomes, and related Tripartite and UNEP functions for the period from 2022 to 2026.

33. In 2021, the Tripartite Joint Secretariat supported the One Health Global Leaders Group on AMR; it conducted four productive meetings, and developed its action plan with key performance indicators and three information notes to support the Global Leaders Group’s actions on “financing to address AMR”, “surveillance of AMR and AMU”, and “AMR and climate crises”.

34. In 2021, as a follow up to the recommendations from the final report of the UN Interagency Coordination Group (IACG) on Antimicrobial Resistance, FAO led the establishment of the AMR Multi-Stakeholders Partnership Platform. A public discussion with a wide range of stakeholders across the globe was organized between summer and autumn 2021. The objectives of the platform are to:

- drive multidisciplinary actions at global, regional, and national levels;
- build global momentum and generate high-level advocacy drive to tackle AMR;
- share and enhance knowledge, evidence, and innovation to underpin key AMR actions, policy recommendations and guidance;
- generate global commitment to use antimicrobials responsibly and prudently to ensure that they remain effective;
- keep the momentum going by developing a clear roadmap facilitated by the Tripartite and UNEP, and the global governance structures.

35. The AMR MPTF is a key instrument to fund Quadripartite collaborative action and support the One Health Approach. The fund is governed by a Steering Committee, composed of a senior-level principal representative from the Quadripartite, and three to five representatives from resource partners, FAO has chaired the Steering Committee in 2021.

36. Since its launch in 2019, AMR MPTF has mobilized over USD 14 million from the Netherlands, Sweden, and the United Kingdom. Recently, the Federal Ministry for Economic Cooperation and Development of Germany has confirmed that it will invest USD 3 million in the fund.
37. Eleven\(^6\) country programmes have been approved by the Steering Committee and are in the implementation phase. Each country has received approximately USD 1 million for a two-year programme timeframe. In addition, the implementation of a global programme has started with the four technical focus areas: “Addressing AMR risk in Environment”, “Monitoring and Evaluation of Global Action Plan”, “Legal and Legislation of AMR/AMU”, and “TISSA”.

IV. The way forward

38. While work continues on the five objectives of the FAO Action Plan on AMR 2021-2025, emphasis during 2022 will be placed on:

- developing and implementing the InFARM data platform to support Members to strengthen the generation and usage of AMR data in food and agriculture sectors;
- reducing the need for antimicrobial use in the food and agriculture sectors, a key driver for the emergence of AMR, by building capacity in FAO Members to apply good production practices and management, antimicrobial stewardship, alternatives to antimicrobials and the implementation of their National Action Plans; and
- further strengthening of multisectoral coordination and One Health collaboration at global, regional, and national levels, in particular through the AMR Multi-Stakeholders Partnership Platform.

\(^6\) Cambodia, Ethiopia, Ghana, Indonesia, Kenya, Morocco, Peru, Senegal, Sudan, Tajikistan and Zimbabwe.