Food and Agriculture Organization
of the United Nations

Accelerating One Health Action in Agrifood Systems to meet UNGA Commitments on AMR

Junxia Song

Senior Animal Health Officer, Head of One Health Coordination and AMR Cluster
Animal Production and Health Division - FAO Headquarters

Some key facts

- Antimicrobials have been **used in agriculture** for decades **(but misuse and overuse in animal production and plant production are the key drivers of AMR in agrifood system)**

- If current trends continue, global livestock antibiotic use is **projected to rise by 29.5%, reaching 143,481 tons by 2040**

- Coordinated global efforts, such as a **50% reduction in antibiotic use intensity (AMUI)** and optimization of livestock biomass, have the potential to reduce global antibiotic use by **56.8%, bringing it down to 61,989 tons by 2040**.

*** Source: Acosta et al. 2025, Nature Communication; and FAO report on the economic burden of AMR (to be published)*

UNGA High-Level Meeting on AMR (2024)

A crucial opportunity to accelerate our joint efforts and progress in addressing AMR in agrifood systems

(Animal Production, Aquaculture, Plant Health, Ecosystem Health, Food Safety for human health outcomes)

No single country or sector can respond to AMR alone!

FAO Implementation of the UNGA Commitments

Agriculture and Animal Health

#66 – Acknowledge the impact of antimicrobial growth promoters…and the need to phase out the use of medically important antimicrobials…building upon the Codex Alimentarius Antimicrobial Resistance Standards

#67 – Prioritize and fund implementation of measures to prevent and control infections… including FAO RENOFARM initiative

#69 – Meaningfully reduce, by 2030, the quantity of antimicrobials used globally in the agri-food system from the current level…

#70 Commit to ensure that the use of antimicrobials in animals and agriculture is done in a prudent and responsible manner

#72 – Ensure, by 2030, that animal vaccination strategies are defined with an implementation plan

#73 – Invest in animal health systems to support equitable access to essential veterinary services

Environment

#74 – **Environmental factors** contribute to development and spread of **antimicrobial resistance** and the need for priority actions to prevent and address the discharge… including… **crop production and terrestrial and aquatic animal production**

#76 – Recognise that **pharmaceutical production…** can impact the **evolution and spread** of antimicrobial resistance in the **environment** and further recognize the need for consistency in national regulatory oversight as well as **coordinated global action**

#77 – Strengthen health systems through **comprehensive primary and secondary antimicrobial resistance prevention strategies**…for improved **human, animal and plant health and the environment..**

#78 – Address **research gaps** and promote **knowledge generation** on environmental aspects of antimicrobial resistance, including identifying **appropriate methods for environmental surveillance** …to address **key pollution sources and prevent contamination of the environment** with antimicrobials and their metabolites.

Progress of FAO's work on AMR in Agrifood systems through a One Health approach

- FAO Action Plan directly supporting more than 70 countries

01

- FAO Assessment Tool for Laboratories and AMR Surveillance Systems - > 60 countries, > 300 laboratories

02

- 10 FAO AMR Reference Centers,

03

04

- Progressive Management Pathway for AMR has assisted 50 countries in strengthening food and agriculture components in AMR National Action Plans

05

- Strengthening legislation One Health Legislative Assessment Tool for AMR - 30 countries

06

- Supporting NAPs implementation at country and global level

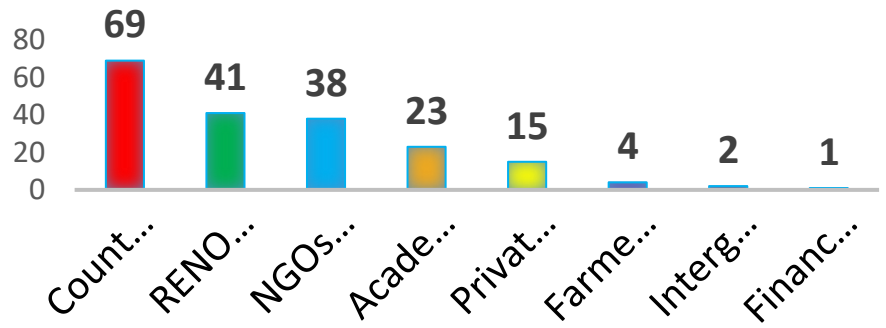
Reduce the Need for Antimicrobials on Farms for Sustainable Agrifood System Transformation RENOFARM

- To achieve global target to ***'meaningfully reduce the quantity of antimicrobials used globally in agrifood systems from current levels by 2030'.***

RENOFARM Targets

- **100 countries** participate in the initiative, with their **National Action Plans for AMR** fully implemented in food and agriculture
- **50% animal/plant health workers** from participating countries trained
- **80% participating countries** contributing data to International FAO AMR Monitoring (**InFARM)** System

152 ORGANIZATION & GROUPS
69 COUNTRIES, 83 ORGANIZATIONS



Support to Farm Production (5 G)

Good Health Services

- Veterinary services
- Vaccination
- Deworming
- Guidance and supervision on antimicrobial use
- Access to reliable and affordable lab services
- Health monitoring
- Priscription

Good production practices

- Nutrition management
- Improved hygiene and biosecurity
- Record-keeping
- Farm waste management

Good alternatives

- Vaccination
- Probiotics
- Prebiotics
- Enzymes
- Acidifiers
- Essential oils and plant extracts
- Phage therapy
- Immune modulators

Good incentives

- Marketing
- Service Providers
- Communication
- Information sharing
- Research collaboration
- Government engagement
- Value chain integration
- Education and outreach
- Continuous improvement

Good connections

- Stakeholder engagement
- Legislation and regulation
- Industry linkages (feed, vaccine)
- Health concerns
- Food safety and quality assurance
- Marketing opportunities
- Economic return

Strengthening AMR Surveillance System (InFARM) within the RENOFARM Initiative

- **The International FAO AMR Monitoring System (InFARM)**

- First annual call: **50 countries participated** and shared information on their surveillance systems, 28 of them also submitted AMR data from more than **500,000 bacterial isolates**.

- Plans for launching Quadripartite Global Integrated System for Surveillance of AMR and AMU (GISSA) (with WHO and WOAH) to unify AMR and AMU surveillance globally.

In a nutshell

- **Emergence of AMR can happen in each sector and spread to the others** => One Health approach

- **Antimicrobials are largely used in the food and agriculture sectors (i.e. food-producing animals)** => Strengthening prevention, reduce the need of antimicrobials in farms improving animal health and welfare, promoting good husbandry practices, innovation and R&D, alternatives to AMU and sustain value chain productions are the keys to curb AMR.

- **Data collection and analysis are the basis of monitoring the effectiveness of interventions** => high-quality laboratory data, AMR surveillance platform and global systems for data sharing and use are vital

- **Scientific-based evidence is a constant need** within agrifood sectors and at the One Health interfaces => Improve knowledge and test new solutions for staying ahead of drug-resistant infections and for informing the development of effective policies, practices to protect the health of humans, animals, plants and safeguard the environment.

- **Multisectoral collaboration through One Health approach** is essential to effectively address complex AMR challenges. QJS is playing a leading role in advancing this effort.

Thank you!

Contact details: Junxia.Song@fao.org

Together we can build a healthier planet and healthier people

FAO 80 Anniversary

Drawings: FAO/Chiara Caproni