Food and Agriculture Organization of the United Nations

THE FAO ACTION PLAN ON ANTIMICROBIAL RESISTANCE 2016-2020

Supporting the food and agriculture sectors in implementing the Global Action Plan on Antimicrobial Resistance to minimize the impact of antimicrobial resistance

THE FAO ACTION PLAN ON ANTIMICROBIAL RESISTANCE 2016-2020

Supporting the food and agriculture sectors in implementing the Global Action Plan on Antimicrobial Resistance to minimize the impact of antimicrobial resistance

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Rome, 2016

ISBN 978-92-5-109392-4

CONTENTS

FOREWORD

Increasing global Antimicrobial Resistance (AMR) is a major threat to human and animal health. It endangers modern human and veterinary medicine and undermines the safety of our food and environment.

Antimicrobials play a critical role in the treatment of diseases of farm animals (aquatic and terrestrial) and plants. Their use is essential to food security, to our well-being, and to animal welfare.

However, the misuse of these drugs, associated with the emergence and spread of antimicrobial- resistant micro-organisms, places everyone at great risk.

The risk appears particularly high in countries where legislation, regulatory surveillance and monitoring systems on the use of antimicrobials, and the prevention and control of Antimicrobial Resistance, are weak or inadequate. This is where FAO plays a key role in supporting governments, producers, traders and other stakeholders to move towards the responsible use of antimicrobials in agriculture, thus helping reduce Antimicrobial Resistance in agricultural systems.

FAO's Thirty-ninth Conference (in June, 2015) adopted Resolution 4/2015 on AMR which recognized that it poses an increasingly serious threat to public health and sustainable food production, and that an effective response should involve all sectors of government and society.

To support the implementation of Resolution 4/2015,[1] the FAO Action Plan on AMR addresses four major Focus Areas:

- improve awareness on AMR and related threats;
- develop capacity for surveillance and monitoring of AMR and AMU (antimicrobial use) in food and agriculture;
- strengthen governance related to AMU and AMR in food and agriculture;
- promote good practices in food and agricultural systems and the prudent use of antimicrobials.

This Action Plan supports the WHO-led Global Action Plan on Antimicrobial Resistance[2] in highlighting the necessity of adopting a "One Health" approach, with the involvement of public health and veterinary authorities, the food and agriculture sectors, financial planners, environmental specialists, and consumers. The objective is to assist Member States to develop (by May, 2017) and implement multisector National Action Plans to combat AMR.

1 Report of the Conference of FAO. Thirty-ninth Session, Rome, 6-13 June 2015 http://www.fao.org/3/a-mo153e.pdf
2 Global Action Plan on Antimicrobial Resistance http://apps.who.int/iris/bitstream/10665/193736/1/9789241509763_eng.pdf?ua=1

FAO works closely with the World Health Organization (WHO) and the World Organisation for Animal Health (OIE) in a tripartite initiative, as well as with other partners, reference centres, academia, and regional groups. It recognizes that a collaborative approach between different sectors, and both political and economic entities and disciplines, is essential in order to address AMR effectively.

We must confront the silent crisis of Antimicrobial Resistance together, today.

Maria Helena Semedo
Deputy Director-General,
Coordinator for Natural Resources

PREFACE

In recognition of the growing problem of Antimicrobial Resistance, the World Health Organization presented to its Health Assembly a draft global action plan on Antimicrobial Resistance (A68/20),[3] which was adopted by the Sixty-eighth World Health Assembly as resolution WHA68.7 in May 2015.[4] The World Health Assembly called for strengthened collaboration between the Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (OIE) and the World Health Organization (WHO) to address Antimicrobial Resistance (AMR) in the context of "One Health". FAO actively contributed to the development of the WHO-led Global Action Plan, which requests FAO to support the implementation of measures in the food and agriculture sectors to combat Antimicrobial Resistance.

The commitment of FAO Members to work on AMR was confirmed by the adoption of Resolution 4/2015 at the Thirty-ninth Session of the FAO Conference in June 2015. This resolution is a call to action to both FAO Members and the Organization itself to address the multifaceted aspects of mitigating both the impact on, and the contribution of, the food and agriculture sectors to the threat posed by Antimicrobial Resistance.

This document outlines the FAO Action Plan on Antimicrobial Resistance, which describes how the Organization will implement Resolution 4/2105 (Annex 1). The Plan was developed by a multidisciplinary FAO team to ensure that all relevant dimensions, including terrestrial and aquatic animal health and production, crop production, food safety, standard setting and legal aspects, are considered and that it is embedded within the Strategic Programme of FAO. Framing FAO's work on AMR, it informs FAO Members and partners of the Organization's approach and goals over the next five years

3 See document WHA68/2015/REC/1, p.17 for the resolution and Annex 3, p.127 for the global action plan (available at http://apps.who.int/gb/ebwha/pdf_files/WHA68-REC1/A68_R1_REC1-en.pdf)
4 WHO. 2015a. Global Action Plan on Antimicrobial Resistance. Available at http://apps.who.int/iris/bitstream/10665/193736/1/9789241509763_eng.pdf?ua=1

INTRODUCTION

ANTIMICROBIAL RESISTANCE – A GLOBAL THREAT

The availability and use of antimicrobial drugs in terrestrial and aquatic animals and in crop production is essential to both health and productivity. It contributes to food security, food safety and animal welfare, and in turn, to the protection of livelihoods and the sustainability of animal and crop production. However, there are growing global concerns about resistance to antimicrobial drugs, including antibiotics, amid fears that Antimicrobial Resistance (AMR) will reverse previous gains. In humans, AMR also threatens to undo decades of improvements in human health care outcomes, with direct impacts on the ability of people to live full and productive lives.

AMR refers to micro-organisms – bacteria, fungi, viruses, and parasites – that have acquired resistance to antimicrobial substances. While this phenomenon can occur naturally through microbial adaption to the environment, it has been exacerbated by inappropriate and excessive use of antimicrobials. Various factors are involved, such as: i) lack of regulation and oversight of use; ii) poor therapy adherence; iii) non-therapeutic use; iv) over-the-counter or internet sales, and; v) availability of counterfeit or poor-quality antimicrobials. The consequences of AMR include the failure to successfully treat infections, leading to increased mortality; more severe or prolonged illness; production losses; and reduced livelihoods and food security. The indirect impacts of AMR include higher costs for treatment and health care. The health consequences and economic costs of AMR are estimated at 10 million human fatalities annually and a 2 to 3.5 percent decrease in global Gross Domestic Product (GDP), or USD 100 trillion, by 2050.[5] But the true cost of AMR is hard to predict.[6]

ANTIMICROBIALS – USE IN AGRICULTURE

Antimicrobials are used in terrestrial and aquatic animal and plant production for both treatment and non-therapeutic purposes such as animal growth promotion, and they play a critical role in the sectors. It is important that these life-saving drugs remain available and appropriately accessible to agriculture. Estimates of the total annual global consumption of antimicrobials in agriculture vary considerably. This is due to poor surveillance and data collection in many countries. For example, only 42 countries in the world have systems to collect data on the use of antimicrobials in livestock.[7] Estimated global antimicrobial consumption in the livestock sector in 2010 was 63 151 tonnes. But the quantity of antimicrobials used for crop production is calculated to be relatively low in comparison to that used in livestock production, with estimates ranging from 0.2 to 0.4 percent of total agricultural consumption.[8]

5 O'Neill O.J., 2014: Antimicrobial Resistance: tackling a crisis for the health and wealth of nations. The Review on Antimicrobial Resistance.
6 Smith R. and Coast J., 2013: The true cost of antimicrobial resistance. BMJ 346, f1493.
7 http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=TAD/CA/APM/WP(2013)23/FINAL&docLanguage=En
8 http://docplayer.net/14366004-Antimicrobials-in-agriculture-and-the-environment-reducing-unnecessary-use-and-waste.html

Of particular concern is the fact that two-thirds of the estimated future growth of usage of antimicrobials is expected to occur within the animal production sector, with use in pig and poultry production predicted to double.[9] Other aspects to be considered with regard to antimicrobial use (AMU) include the distinction between therapeutic and non-therapeutic use, between the diverse existing production systems and between specifics related to the different animal species and their eco-geographical location. Extensive and smallholder livestock production systems appear to use relatively small amounts of antimicrobials, mostly for therapeutic use, i.e. for the treatment of infected or sick animals rather than for disease prevention or growth promotion.

ANTIMICROBIAL RESISTANCE – A GLOBAL AND MULTISECTORAL ISSUE

Antimicrobial-resistant micro-organisms can develop and move between food-producing animals and humans by direct exposure or through the food chain and the environment. AMR is therefore a multisectoral problem encompassing the interface between humans, animals and the environment. The fact that human and veterinary health, food and feed production systems and agro-ecological environments all contribute to, and are affected by, AMR indicates the need for a multisectoral and multidimensional "One Health" approach to curb its occurrence. The FAO/OIE/WHO tripartite collaboration, together with public and private organizations, share responsibilities for addressing global activities regarding AMR at the animal-human-ecosystems interfaces. Being a multisectoral and multidisciplinary organization, FAO will bring into play its expertise on aquatic and terrestrial animal health and production as well as on food safety and crop production, with due attention to the regulatory aspects.

AMR is a global problem. Resistant micro-organisms and genes do not recognize geographical or ecological borders. Resistance arising in one geographical location or species can spread with ease to other geographical locations through movements of food, water, animals and/or people; it can spill over into other species, impacting developed and developing countries alike. The containment of AMR requires a global approach combined at national level with concerted actions that span the policy and regulatory spheres, and with preventive actions and engagement with producers and other food value chain stakeholders.

ROLE OF FAO IN ADDRESSING ANTIMICROBIAL RESISTANCE

FAO is uniquely placed to contribute to international efforts to address AMR and to provide support to governments, producers, traders and other stakeholders to adopt measures to minimize the use of antimicrobials and to reduce AMR, while being sensitive to the needs of the food and agriculture sectors worldwide. The Organization has a wide range of expertise in a variety of disciplines (aquatic and terrestrial animal health, welfare and production, food and feed safety, crop production and protection, legal development, etc.) and is present at country, regional and global levels. In addition, the Organization hosts the Secretariats of the Codex Alimentarius and of the International Plant Protection Convention,

9 Van Boeckel, TP, Brower, C, Gilbert, M, Grenfell, BT, Levin, SA, Robinson, TP, Teillant, A and Laxminarayan, R. 2015. Global trends in antimicrobial use in food animals. Proceedings of the National Academy of Sciences of the United States of America. vol. 112 no. 18. Available at http://www.pnas.org/content/112/18/5649.full

and thus pays particular attention to international regulatory issues. It further supports standard setting in terms of scientific advice as the basis for sound international standards and promotes the implementation of these standards by providing support to countries.

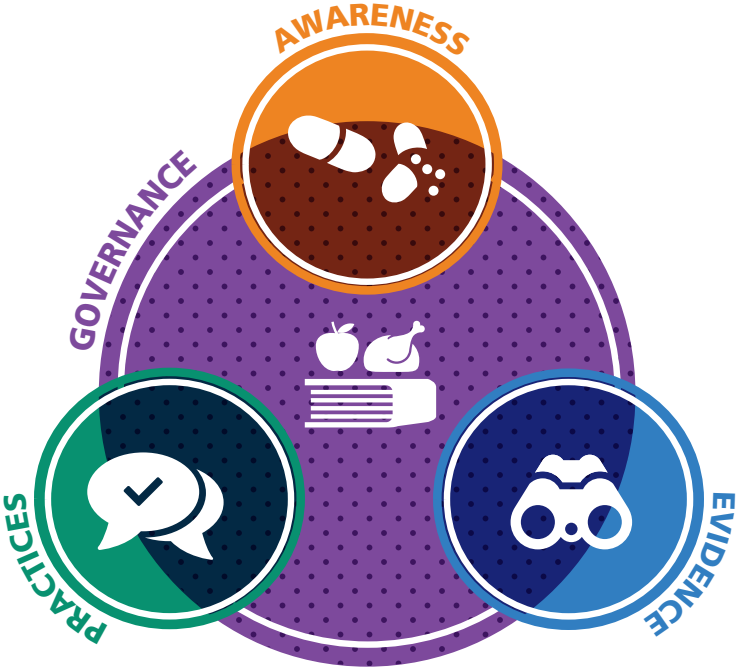
As a multidisciplinary organization, FAO plays a key role in providing integrated and coherent support to countries in regulating and monitoring the use of antimicrobials and in preventing and minimizing the development of resistance across all sectors. FAO encourages countries to identify and involve all stakeholders (from policy-makers and governmental regulators, retailers, agriculture and animal producers, to the food and feed industry and the general public) to ensure their engagement from an early stage, and to secure their ongoing collaboration and their prompt action.

In addition, FAO's vast experience in capacity development enables it to respond to requests for support from countries regarding the use of antimicrobials and the prevention and control of AMR, among other issues. This is especially important for countries where the risk of AMR might be particularly high due to weak or inadequate legislation, regulatory surveillance and/or monitoring systems.

THE FAO ACTION PLAN

FAO has identified four main pillars of work on Antimicrobial Resistance, which serve as the Focus Areas for the FAO Action Plan. These four areas are strongly interrelated and need to be addressed in parallel. In addition, activities need to be implemented across the different sectors of food and agriculture systems and embrace a "One Health" approach. "One Health" recognizes that the health of humans, animals and ecosystems are interconnected. It involves applying a coordinated, collaborative, multidisciplinary and cross-sectoral approach. The latter is particularly relevant when it comes to addressing AMR, as it facilitates the multidimensional perspective needed to address aspects ranging from our understanding of the factors driving Antimicrobial Resistance, to assessing AMR's economic impact and to finding viable solutions and interventions.

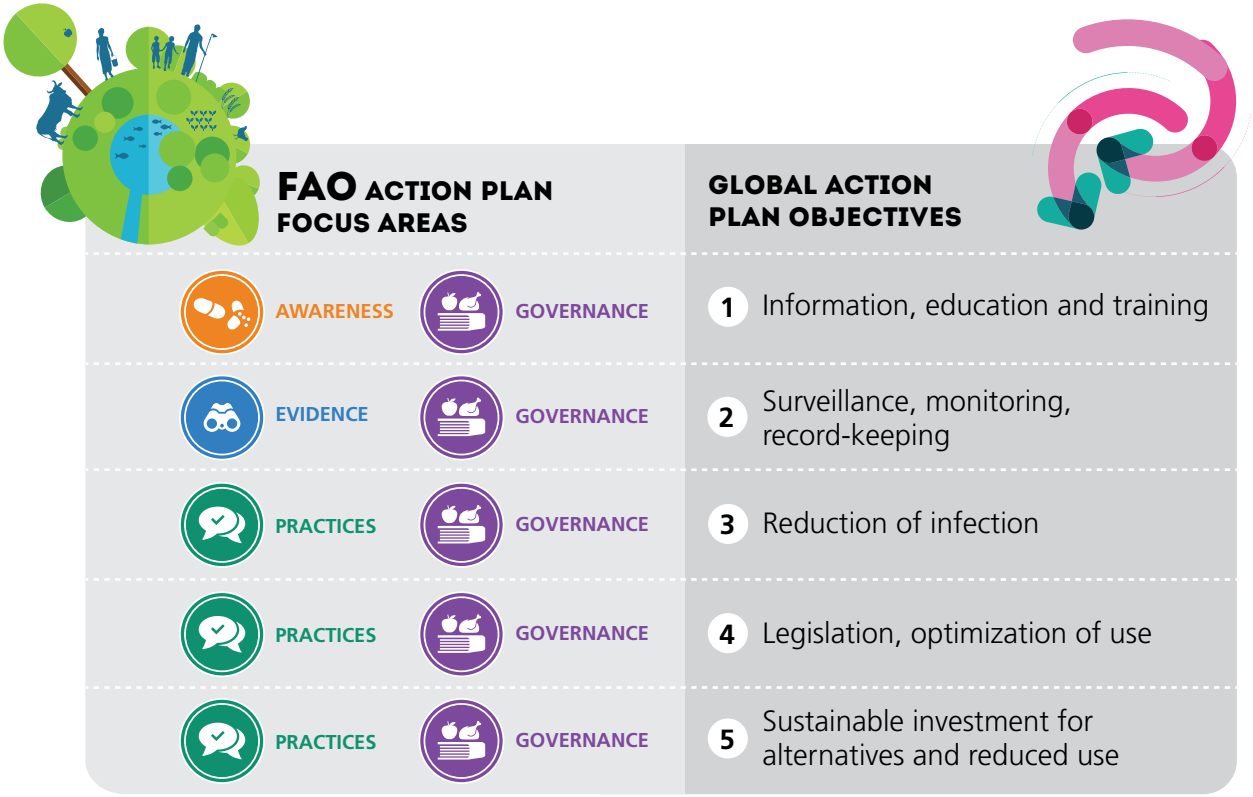
Figure 1. *Four Focus Areas of the FAO Action Plan on AMR*



The Focus Areas also frame FAO's support to the implementation of the Global Action Plan on AMR.[10] Figure 2 outlines how FAO's four Focus Areas will support the Global Action Plan's objectives. The alignment and coordination of the various activities will be facilitated by the strengthened tripartite collaboration between FAO, OIE and WHO.

10 WHO. 2015a. Global Action Plan on Antimicrobial Resistance. Available at http://apps.who.int/iris/bitstream/10665/193736/1/9789241509763_eng.pdf?ua=1

Figure 2. *FAO Focus Areas of work as they relate to the five objectives of the Global Action Plan on AMR*



FOCUS AREA 1
IMPROVE AWARENESS ON ANTIMICROBIAL RESISTANCE AND RELATED THREATS

A minimum understanding of the issue and why it is relevant to all stakeholders along the food chain is considered to be a prerequisite for change and commitment to action. The relevance of AMR to food and agriculture, in terms of both its impact on the sector and of the sector's role in addressing the problem, is not always apparent. This Focus Area seeks to take immediate action to raise awareness of AMR by developing communication and advocacy products that target different sectors and that help countries find appropriate, culture-sensitive ways to disseminate key messages and understand the challenges and risks they face from AMR. Focus Area 1 links with Focus Area 2 as FAO fully recognizes the importance of evidence-based messaging and of ensuring that it is relevant to the food and agriculture sectors. Recognizing that consideration of AMR and its impact needs to become an integral part of the food and agriculture policy environment, Focus Area 1 will also advocate for consideration of AMR at global and national levels and work in cooperation with other organizations concerned.

OUTPUT 1.1: Awareness on AMR is improved among food and agriculture stakeholders

Key activities to achieve this output

- Developing communication and advocacy products that reflect FAO's position and approach and are tailored to different target sectors and stakeholders.
- Providing support to countries to adapt and disseminate communication and advocacy products, taking into account the specific situations of individual countries/regions and of different audiences in the food and agriculture sectors.
- Providing support to countries to develop their own strategies and risk-communication tools for increasing awareness about AMR in food and agriculture.

OUTPUT 1.2: Consideration of AMR is integrated into policy-level discussions on food and agriculture

Key activities to achieve this output

- Advocating for the inclusion of AMR in high-level meetings (e.g. Committee on Food Security, UN General Assembly, FAO conferences, Committee on Food Security, etc.) and providing technical support to facilitate consideration of AMR in such high-level, policy-making fora.
- Organizing or participating in global, regional and national AMR public awareness events in partnership with other organizations (e.g. OIE, WHO, etc.).
- Publishing and disseminating reports indicating progress in the implementation of the FAO Action Plan on AMR.

FOCUS AREA 2
DEVELOP CAPACITY FOR SURVEILLANCE AND MONITORING OF ANTIMICROBIAL RESISTANCE AND ANTIMICROBIAL USE IN FOOD AND AGRICULTURE

Understanding the extent of antimicrobial use (AMU) and AMR in the food and agriculture sectors is a basis for driving action and is also critical to measuring the impact of initiatives and progress made in addressing this problem. Acknowledging that it can be challenging for countries to take action based on data from other parts of the world, this Focus Area aims to support local data generation in support of local action and in progressively building local capacity to generate more extensive data. This work will also be implemented in close collaboration with OIE and WHO to support integrated systems of surveillance and monitoring and to promote data sharing across sectors at local and global levels. This Focus Area will also aim to make widely available information on AMR that is particularly relevant to the food and agriculture sectors.

OUTPUT 2.1: Knowledge on AMR and antimicrobial use in the food and agriculture sectors is improved

Key activities to achieve this output

- Developing training materials (including e-learning modules) on AMU, AMR and related surveillance and monitoring.
- Promoting and contributing to research or studies that aim to improve existing knowledge on AMU and AMR in the food and agriculture sectors, including transfer to/from humans and the agriculture and food production environment.
- Supporting the inclusion of AMU and AMR as core components of professional education, postgraduate training, certification and continuing education in the food and agricultural sectors.

OUTPUT 2.2: Laboratory capacity on AMR and antimicrobial residue monitoring is improved

Key activities to achieve this output

- Developing a laboratory mapping tool to assess existing capacities for monitoring AMR and detecting antimicrobial residues.
- Helping strengthen national laboratory capacity to monitor AMR and detect antimicrobial residues in food products and the environment.
- Designating FAO reference laboratories on AMR and antimicrobial residues.

OUTPUT 2.3: Country-specific integrated surveillance/monitoring systems for AMU and AMR are developed

Key activities to achieve this output

- Supporting the revision, adaptation and uptake of guidelines for integrated (food, agriculture and environment) AMR monitoring and surveillance programmes.
- Providing assistance to countries in preparing and implementing national plans to improve integrated surveillance and monitoring of AMU and AMR.
- Conducting country-level assessments of existing systems for surveillance and monitoring of AMU and AMR in the food and agriculture sectors in order to identify need and gaps.
- Providing support to OIE in developing and maintaining a global database on the use of antimicrobials in animals, and building on the OIE database on veterinary medicines to include production, distribution, commerce, and statistics for food and agriculture production, including commercial-sector data and marketing as well as information/data obtained through consultation with farmers and producers.
- Providing assistance to countries in collecting information on the use of antimicrobials in food and agriculture to support the development of systems for monitoring AMU and to link these findings to Antimicrobial Resistance.
- Providing assistance to countries in the collection of information on the occurrence of antimicrobials in the environment (water, soil, etc.) and the assessment of those data in terms of their potential impact on the development and spread of AMR.

FOCUS AREA 3
STRENGTHEN GOVERNANCE RELATED TO ANTIMICROBIAL USE AND ANTIMICROBIAL RESISTANCE IN FOOD AND AGRICULTURE

The capacity and resources of many countries to take action to address AMR is dependent on political commitment, appropriate policy and a relevant regulatory or legislative framework in which to operate. This area of work aims to support countries in that endeavour. As well as supporting national-level work, this Focus Area also encapsulates FAO support to the setting of international standards relevant to AMR and the development of the evidence and scientific basis on which to base such standards. The latter areas will also link strongly to Focus Area 2. Recognizing the different types of information needed to facilitate political commitment and the development of evidence-based policies, this Focus Area will also concentrate on providing information on alternatives to AMU, the economic aspects of the AMR problem and the measures needed to address it.

OUTPUT 3.1: Information provided in support of improved policy- and decision-making

Key activities to achieve this output

- Developing studies on regulatory approaches to AMU in food and agriculture.
- Providing assistance to countries in the development of policies to phase out the use of antimicrobials as growth promoters.
- Producing case studies on the use of antimicrobials and the economic impact of a reduction in the use of antimicrobials as growth promoters when using possible alternatives.
- Developing a publicly accessible repository of scientific and technical information on AMR, AMU, and other data relevant to the food and agriculture sectors.
- Supporting the standard-setting work of the Codex Alimentarius on AMR by providing the necessary scientific advice, in collaboration with WHO and OIE as appropriate.

OUTPUT 3.2: Development and revision of regulatory frameworks supported, in line with internationally agreed principles and standards.

Key activities to achieve this output

- Providing support to countries and regional organizations to revise and/or develop legislation that meets international guidelines/standards (e.g. Codex), and to strengthen national and regional regulatory capacity on AMR-related areas.
- Collecting, reviewing and analysing information on the implementation of existing Codex standards/guidelines related to AMU and AMR to support timely revision of international standards.

OUTPUT 3.3: Enhanced implementation of an integrated "One Health" approach to AMR

Key activities to achieve this output

- Developing a Progressive Management Pathway[11] on AMR in the food and agriculture sectors and providing support to countries in its implementation.
- Facilitating the inclusion of AMR and its relevance to food and agriculture in "One Health" platforms and fora.
- Organizing, in collaboration with WHO and OIE, an international "One Health" meeting to advise on integrated AMU policies to strengthen governance relevant to addressing AMR.

11 The progressive management pathway (PMP) could be defined as a step-wise approach or tool to assist countries assess their current situation in relation to understanding of/available data on AMR/AMU, their manufacture or import, production sectors (aquatic and terrestrial animals, crop agriculture), surveillance systems, vocational and professional education, and good manufacturing practices.

FOCUS AREA 4
PROMOTE GOOD PRACTICES IN FOOD AND AGRICULTURE SYSTEMS AND THE PRUDENT USE OF ANTIMICROBIALS

The success of the first three Focus Areas will only be complete if it ultimately drives change and leads to the development and implementation of practices that positively contribute to addressing AMR. However, there are a range of factors that need to be considered in effecting change, not least of which are economic aspects and the availability of viable alternatives. Such changes also need to be implemented in the context of efficient and inclusive food and agriculture systems to ensure that FAO's objectives for hunger reduction are also supported. This Focus Area will centre on developing and supporting the practical measures to be taken in the food and agriculture sectors to minimize the need for antimicrobials (e.g. improved biosecurity to reduce infections), reduce the use of antimicrobials (e.g. focus on good practices in therapeutic use and identifying alternatives to antimicrobials) and minimize or prevent the spread of Antimicrobial Resistance (e.g. good hygiene practices). While it will build on the outputs of the other Focus Areas, efforts here need to begin immediately to convert existing knowledge into improved practices.

OUTPUT 4.1: International standards and guidelines relevant to addressing AMR and applying good practices are adopted at country level

Key activities to achieve this output

- Supporting the development of country-level capacities for the practical implementation of international standards and guidelines related to AMR and AMU (e.g. related Codex standards, the relevant sections of the FAO Code of Conduct for Responsible Fisheries, the International Code of Conduct on Pesticide Management etc.).
- Monitoring the adoption and use of relevant Codex standards and guidelines and other international standards/guidelines when feasible.
- Supporting the inclusion of considerations on AMR in the development of voluntary guidelines for sustainable agricultural production.

OUTPUT 4.2: Awareness and knowledge on approaches to prudent and responsible use of antimicrobials in the food and agriculture sectors is improved

Key activities to achieve this output

- Developing and supporting the utilization of education and training materials on responsible use of antimicrobials, the importance of preventing infections in animals, biosecurity, good agricultural practices, and other measures to control the spread of resistant micro-organisms throughout the food chain and the environment.
- Developing and communicating recommendations (in collaboration with OIE) to improve animal health and welfare, thus reducing the need for antimicrobials (including, for example,

application of effective vaccines, use of good hygiene and husbandry practices, and compliance with good agricultural practices).

- Developing guidance and supporting countries to improve national capacity in applying risk-based approaches to address AMR, based on the Codex recommendations.
- Providing countries with a comprehensive set of tools to encourage and facilitate the responsible and prudent use of antimicrobials in food and agriculture.

OUTPUT 4.3: Biosecurity, good practices and other measures to support prudent use of antimicrobials throughout the food chain are improved at country level

Key activities to achieve this output

- Reviewing and evaluating alternative options to the use of antimicrobials in primary production, including social and economic considerations, and developing guidance on their use.
- Providing assistance to countries to implement recommendations to more effectively manage the overall use of antibiotics in livestock production and aquaculture, and of non-specific applications in treating sick animals.
- Developing capacity to apply good hygiene and biosecurity practices throughout the food chain (from production to consumption) in order to reduce microbial contamination of food and the environment and to minimize the spread of AMR.

IMPLEMENTATION MECHANISMS

FAO will implement this Action Plan within its own Strategic Framework at the global, regional and national levels. Coordination and alignment of this work with that of the other relevant international organizations will be facilitated by the FAO/OIE/WHO tripartite agreement. According to the area of work, collaboration with other relevant public and private sector institutions and organizations will be critical. The Organization needs to mobilize both human and financial resources to ensure continuity of efforts and sustainability of action.

FURTHER READING

WHO, 2015. Global Action Plan on Antimicrobial Resistance.
Available at *http://apps.who.int/iris/bitstream/10665/193736/1/9789241509763_eng.pdf?ua=1*

FAO/WHO Codex Alimentarius. 2015. *Codex Texts on Foodborne Antimicrobial Resistance.*
Available at *ftp://ftp.fao.org/codex/Publications/Booklets/Antimicrobial/Antimicrobial_2015Tri.pdf*

RELATED LINKS

FAO thematic site on Antimicrobial Resistance: *www.fao.org/antimicrobial-resistance*

Good Agricultural Practices: w*ww.fao.org/prods/gap/*

WHO site on Antimicrobial Resistance: *www.who.int/topics/antimicrobial_resistance/en/*

OIE site on Antimicrobial Resistance:
www.oie.int/en/our-scientific-expertise/veterinary-products/antimicrobials

European Food Safety Authority (EFSA) – Antimicrobial Resistance:
www.efsa.europa.eu/en/topics/topic/amr

ANNEX 1

RESOLUTION 4 - 2015

Antimicrobial Resistance

THE CONFERENCE,

Having considered the Secretariat's Status Report on Antimicrobial Resistance[12] in food, agriculture[13] and the environment;

Recalling the Rome Declaration on Nutrition 2014 and accompanying Framework for Action and also recalling the request by the Council at its Hundred and Fiftieth Session to the Secretariat;

Recognizing the role of FAO as the lead intergovernmental agency with the mandate to improve agriculture, forestry, fisheries and management of natural resources and to achieve global food security and nutrition;

Noting also the relevant and globally agreed FAO/WHO Codex Alimentarius Commission[14] guidance and Codes, as well as the relevant agreed OIE standards, to address antimicrobial resistance;

Aware that access to effective antimicrobial agents constitutes a prerequisite for productive and sustainable agriculture, particularly animal husbandry and aquaculture and safe food, on which countless livelihoods depend throughout the world, but that hard-won gains in animal and human health and development are at risk due to increasing resistance to antimicrobials;

Aware that the health and economic consequences of antimicrobial resistance constitute a heavy and growing burden on high-, middle- and low-income countries, requiring urgent action at national, regional and global levels, particularly in view of the limited development of new antimicrobial agents;

Recognizing that there is need for a coherent, comprehensive, integrated and balanced approach at global, regional and national levels in a 'One Health' approach and beyond, involving different actors and sectors such as human and veterinary medicine, agriculture, food safety, environment and consumers;

Recognizing that antimicrobial resistance involves a wide range of microorganisms, including bacteria, viruses, fungi and parasites, but that the development of resistance to antibiotics is of particular urgency and most in need of immediate attention;

Emphasizing the importance of policy recommendations being based on sound scientific evidence and risk analysis principles;

12 C 2015/28 Rev.1.
13 Includes the growing of crops and the rearing of terrestrial and aquatic animals.
14 Codex Guidelines on Risk Analysis of Foodborne Antimicrobial Resistance - CAC/GL 77- 2011 and Code of Practice to Minimize and Contain Antimicrobial Resistance - CAC/RCP 61-2005.

Noting the evidence of the transmission and spread of antimicrobial resistance between animals, humans, in the food chain and the environment;

Welcoming the tripartite collaboration on antimicrobial resistance among FAO, the World Health Organization (WHO), including Codex Alimentarius, and the World Organisation for Animal Health (OIE), as well as other international collaboration;

Noting the adoption by the Sixty-seventh World Health Assembly of a resolution on antimicrobial resistance,[15] including its request to the WHO Director-General to strengthen the tripartite collaboration among FAO, OIE and WHO for combating antimicrobial resistance in the spirit of the 'One Health' approach;

Welcoming the adoption by the Sixty-eighth World Health Assembly of the Global Action Plan on Antimicrobial Resistance,[16] into which FAO provided input, and noting the reports and guidance to and by the Executive Board of WHO at its Hundred and Thirty-sixth Session;

Aware that the Global Action Plan reinforces the need for collaboration on antimicrobial resistance among FAO, OIE and WHO and other intergovernmental organizations, partners and stakeholders and calls upon FAO to support the implementation of antimicrobial resistance prevention and control measures in food and agriculture;

Noting the Secretariat's report to the Council at its Hundred and Fifty-first Session, set out in document C 2015/28 Rev.1 and the deliberations of the Council;

Strongly supporting the ongoing work by the Secretariat, in collaboration with Members and others, to assess the evidence of antimicrobial resistance in food and agriculture systems, identify knowledge gaps, and provide recommendations to Members for effectively combatting antimicrobial resistance;

Urges Members to:

a) **increase** political awareness, engagement and leadership to ensure continued access to antimicrobial drugs through the prudent and responsible use of antimicrobials in agriculture, as expressed in the Codex Code of Practice to Minimize and Contain Antimicrobial Resistance,[17] in particular those on the OIE and WHO lists of Critically Important Antimicrobials[18] of veterinary and human health importance;

b) **strengthen** national monitoring of antimicrobial resistance and the use of antimicrobials in agriculture, regulation of their prescription and use and compliance with those regulations in cooperation with OIE, WHO and FAO in accordance with OIE and Codex standards;

c) **facilitate** efforts to strengthen analysis and sharing of international scientific evidence for development, transmission and control of antimicrobial resistance in food, agriculture and the environment, including technology transfer;

15 WHA67.25, 24 May 2014
16 A68/20; A68/20 Corr.1, 21 May 2015
17 WHO - Critically important antimicrobials for human medicine (3rd Revision)
http://www.who.int/foodsafety/publications/antimicrobials-third/en/
18 OIE List of Antimicrobials of Veterinary Importance
http://www.oie.int/doc/ged/D9840.PDF

d) **take actions** to continue the development of sustainable food production systems taking into consideration their social, economic and environmental dimensions, in order to reduce the risk of diseases, prevent the unnecessary use of antimicrobials, including the phasing out of antimicrobials as growth promoters (veterinary antimicrobial drugs which belong to or are able to cause cross resistance to classes of antimicrobial agents used – or submitted for approval - in humans and animals in the absence of a risk analysis) and promote good animal husbandry management, biosecurity and biosafety;

e) **take urgent action** at regional, national and local levels to mitigate risks posed by inappropriate antimicrobial usage and antimicrobial resistance in food, agriculture and the environment;

f) **develop or strengthen** national plans, strategies and international collaboration for the surveillance, monitoring and containment of antimicrobial resistance in food, agriculture and the environment, in close coordination with related plans for human health;

g) **mobilize** human and financial resources, at national, regional and international level, in order to implement plans and strategies to strengthen surveillance and to minimize development and transmission of antimicrobial resistance in food, agriculture and the environment;

h) **improve** among all relevant stakeholders awareness of: i) the risks posed by antimicrobial resistance to public health, as well as the potential negative impacts on food and agriculture; ii) the need for responsible use of antimicrobial drugs in agriculture; and iii) good animal husbandry, plant production, health, biosecurity and biosafety, management and hygiene practices;

i) **support** developing countries to develop programmes and systems for detection, surveillance and monitoring of antimicrobial use and antimicrobial resistance and to follow-up on their related policies established to achieve progressive management of antimicrobial resistance risks in food, agriculture and the environment;

j) **encourage and support** research and development to combat antimicrobial resistance and development of new classes of antimicrobial agents and alternative therapies and diagnostics and promote responsible use of antimicrobials in agriculture;

k) **recognize** the importance of the development of antimicrobial usage and resistance surveillance; and

l) **improve** information sharing and awareness raising amongst all stakeholders.

Requests the Organization to:

a) **actively support and provide capacity building as appropriate,** in collaboration with other relevant partners, sustainable production systems taking into account the social, economic and environmental dimensions that prevent diseases through good animal (aquatic and terrestrial) husbandry management and practices, as well as good plant production management and practices, as an important means to combat antimicrobial resistance;

b) **ensure** that all relevant parts of the Organization, at headquarters, regional and country levels, are actively engaged and coordinated in promoting work on combatting antimicrobial resistance, within the parameters of the FAO Strategic Objectives;

c) **help strengthen** the tripartite collaboration between FAO, OIE and WHO for combatting antimicrobial resistance in the spirit of the 'One Health' approach and to maximize synergies with OIE in animal health;

d) **support** efforts to explore with the United Nations Secretary-General options for a highlevel initiative, including a high-level meeting, to increase political awareness, engagement and leadership on antimicrobial resistance;

e) **support** implementation of the Global Action Plan on Antimicrobial Resistance, which seeks to address the need to ensure that all countries, especially low- and middle-income countries, have the capacity to combat antimicrobial resistance and which takes into account existing action plans and all available evidence and best practices; and

f) **keep Members regularly apprised** of the Secretariat's work in this area, through reports to the Committee on Agriculture.

(Adopted on 13 June 2015)

ISBN 978-92-5-109392-4

I5996E/1/08.16