International Agri-Food Network

Private Sector Mechanism Position Paper
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Antibiotic use and antibiotic resistance in agriculture

Antimicrobial resistance (AMR) is a global public and animal health issue that needs careful stewardship. Together with the World Organization for Animal Health (OIE), the FAO has actively participated in the development of the WHO Global AMR Action Plan. This plan provides a holistic approach to combating AMR. One of the more important features in the plan is the call to countries to develop and implement their own national plans, which many have already done. The plan states that individual countries are responsible for deciding how to meet any reduction in use targets. This is appropriate, as local disease, animal husbandry, economic and climate conditions will impact countries' abilities to change existing practices.

The Private Sector Mechanism (PSM) views on antibiotic use and AMR in agriculture:

1. It is recognized that **antibiotics provide real benefits to people and animals**, and even where great efforts are made to prevent bacterial infections through good animal husbandry, bio-security and use of vaccines, there are occasions when animals become sick and require treatment with an antibiotic.

2. The private sector is **committed to limiting the development of antibiotic resistance** by promoting their responsible use in order to preserve them for future generations. Responsible or judicious use of antibiotics means: always according to label recommendation, under veterinary supervision and only when necessary. The **private sector supports the WHO Global AMR Action Plan** and is actively working with governmental and intergovernmental groups to implement it.

3. There is debate on the respective contribution of human and agricultural use to AMR. Whilst agriculture must play a role in decreasing AMR, there should be no doubt that the core of the solutions remains with human use. There is significant evidence that the **main cause of AMR is over and inappropriate use in humans**, as it is mentioned in several reports, like that from the European Medicines Agency, or the UK Department of Health, which stated that: "…*clinical issues with antimicrobial resistance that we face in human medicine are primarily the result of antibiotic use in people, rather than the use of antibiotics in animals."* It is worth noting that the US CDC in a recent report found that out of the 18 species of antibiotic resistant bacteria that pose the greatest threat to human health, only two have their potential source in agriculture.

4. **Enhanced surveillance of antimicrobial resistance** and monitoring of use of antibiotics are important. Antibiotic use in animals should be available following a prescription by a veterinarian, but in many developing countries this is a problem, because of the lack of veterinarians.

5. Antibiotics have **a role to play in sustainable livestock production** by reducing waste and inefficiencies caused by disease, and help provide a safe supply of food from healthy animals. We need to maintain practices that allow the continued use of antibiotics when they are beneficial.

6. It is our **moral and legal obligation to the animals** in our care to ensure their health and welfare and receive the medicine they need if they get sick.

7. The private sector is **committed to innovation** in vaccines, antibiotics, and their alternatives. Many hundreds of millions of R&D funds are spent to develop new products and approaches.

Research cooperation with the public sector happens in different fora like the FAO or STAR-IDAZ IRC programme.

8. The **public veterinary sector plays an active role** in fighting anti-microbial resistance in multiple ways. The OIE has worked for many years to preserve the efficacy of, and prolonged usage of antibiotics in veterinary medicine. OIE is the global leader as part of the Tripartite Action Plan among OIE, FAO and WHO. The work includes setting global standards, training, education and research, and the development of the global surveillance mechanism regarding antimicrobial veterinary use. Many national authorities have acted in four main areas: creation of action plans to counter AMR, surveillance, R&D and usage.

9. The **private sector is playing a useful role to curb AMR**. Private sector veterinarians across six continents have issued guidance on Responsible Use to hundreds of thousands of veterinarians. They have trained veterinarians around the world and set up and support responsible/judicious use coalitions. Animal medicines producers have been active contributors to responsible use efforts for over two decades. Significant resource has been devoted to use, control and application of antimicrobials. Industry and associations have communicated with users regarding responsible use with the core message that antibiotics should be handled in such way that limits the potential for stimulating the development of resistant bacterial strains.

10. **Farmers and veterinarians use antibiotics only when they are necessary** and in the smallest amount needed. Unlike in human health where the cost of medicine is often borne by a third party, in veterinary medicine the farmer pays for the full cost of the medicine. Farmers have an incentive to avoid using antibiotics whenever they can – they are an expense. Given the low margins in livestock production, and the cost of antibiotics, the deliberate overuse of antibiotics makes no economic sense

11. **Antibiotic residues are rarely found in food**. Monitoring the safety of the national food supply is a fundamental responsibility for all governments. Tests are carried out on routine samples looking for residues of various types of veterinary medicines, as well as other potential contaminants, like pesticides or toxic heavy metals. Typically, more than 99% of samples are at safe levels set by authorities. (For example, 0.31% of sample in Europe for 2013[i] were above the statuary safe maximum residue limit set by authorities.) Any authorised medicine used in livestock has a statutory absorption period stating the minimum amount of time that must be observed after treatment before meat, milk or eggs from that animal can enter the food chain.

References:

UK Government Department of Health five year strategy on Antimicrobial Resistance (2013) *https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/244058/20130902_UK_5_year_AMR_strategy.pdf*

The U.S. Centers for Disease Control (CDC) http://www.cdc.gov/drugresistance/pdf/ar-threats-2013-508.pdf

European Medicines Agency (EMA) Committee for Medicinal Products for Veterinary Use (CVMP) draft strategy on antimicrobials http://www.ema.europa.eu/docs/en_GB/document_library/Scientific_guideline/2015/11/WC500196645.pdf

World Animal Health Organization, OIE presents the basic principles of its strategy to fight antimicrobial resistance http://www.oie.int/en/for-the-media/press-releases/detail/article/the-oie-presents-the-basic-principles-of-its-strategy-to-fight-antimicrobial-resistance/

Report for 2013 on the results from the monitoring of veterinary medicinal product residues and other substances in live animals and animal products (http://www.efsa.europa.eu/en/supporting/pub/723e)