AU-IBAR Promotes Work on Antimicrobial Resistance in Africa

1.   *Problem of AMR in the animal Health Sector in Africa:*

Animal resources are a key contributor to Africa's Agricultural GDP, however, animal diseases still burden Africa with annual losses of over US$4 billion in Sub-Sahara, an equivalent to 25% of the total value of animal production. Management of most diseases largely relies on use of anti-microbials. However, irrational use, prolonged use, farmers disregarding drug withdrawal periods and recommended dosages, wide use of antimicrobials for growth promotion and as prophylaxis, in animal farming, poor quality of drugs and self-medication has led to the emergence and spread of antimicrobial resistance.

AMR is a source of concern because it increases the likelihood of treatment failure in both animals and humans. Antimicrobial resistance in the animal health sector has received comparatively less attention than in human health. However, reports indicate that from 2000 to 2018, the proportion of AMR above 50% increased from 15% to 41% in chickens and from 13% to 34% in in pigs.

In animal health, greater commercialization and intensification in small holder farming has led to increased antimicrobial use (AMU) for prophylaxis and treatment of animals in order to maintain animal health, leading to emergence of antimicrobial resistance.

Livestock may act as reservoir of AMR bacteria, with potential for widespread transmission between humans and animals as a result of close contact between the two, or via the food chain.

Pathogens with resistance can be directly transferred to humans from animals and animal products

A significant increase in the prevalence of antimicrobial resistance to *Campylobacter spp.* (29.6-63.1%) from 1990 to 2021 has been reported in the animal health sector in Africa.

A recent study conducted in 37 Africa countries revealed widespread antimicrobial resistance in farm animals. Antimicrobial resistance is largely reported in *Campylobacter spp.*, *Salmonella spp.*, *Escherichia coli*, and *Enterococcus spp* within animal the production sector in Africa

Tetracycline resistance being predominantly reported (43%), followed by Penicillin resistance (16%), Quinolone resistance (8%), Acaricides resistance (5%), Trypanocide resistance (5%), Streptomycin resistance (3%) and Sulphonamide resistance (3%). Reported resistance against drug combinations was low (3%). The majority of the countries (17) reported a prevalence of 0-20%. Fewer countries (8) reported a prevalence of 21-40%. Other countries (10) reported a prevalence of 41-60%. Only one country reported a prevalence of 61-80%.

3. AU-IBAR interventions on AMR and achievements

CES-AMR Africa project

- AU-IBAR, with support from the United Stated Department of Agriculture – Foreign Agricultural Services (USDA-FAS), is implementing a project on "Containing the Emergence and Spread of Antimicrobial Resistance in Africa (CES-AMR Africa)", a two-year project. The overall objective of the project is to enhance AMR governance with focus on regional approaches that strengthen capacities to undertake surveillance of AMR microorganisms. This is a continental project supporting all African countries on AMR work.

Practical training on AMR for African countries

- AU-IBAR has conducted practical training on AMR surveillance, Laboratory testing, Animal pathogen isolation techniques and data collection and analysis techniques for 18 Africa countries. Training was conducted at Ecole Inter-Etats des Sciences et Médecine Vétérinaires (EISMV), Dakar, Senegal, 25-29 September 2023 and at Sokoine University of Agriculture, Morogoro, Tanzania, 23-27 October 2023
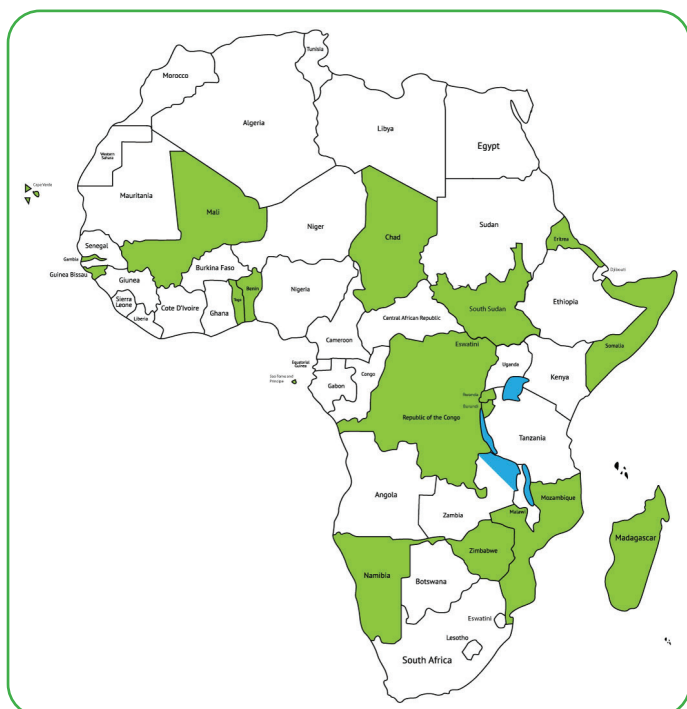
Launch of the Africa AMR Surveillance Network (AMRSNET)

- AU-IBAR launched the Africa AMR Surveillance Network (AMRSNET), a network dedicated specifically to the animal health sector. The network is consisted of names of AMR Focal points for Animal Health/production and Public Health from 37 African countries.
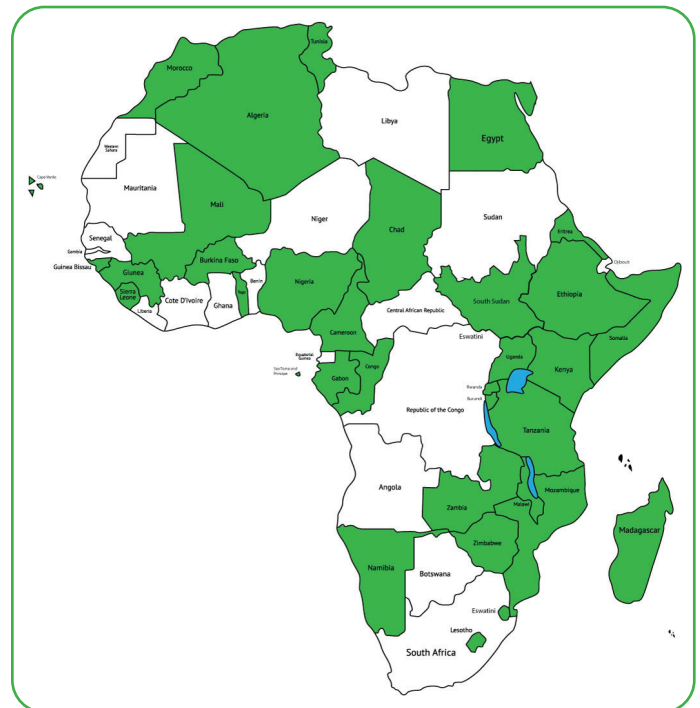
- AMRSNET serves as a vital platform for fostering collaboration among experts, policymakers, and stakeholders. It facilitates the coordination of efforts, sharing of best practices, and the strengthening of Africa's collective response to AMR in animals.

AMR update survey report for Africa published

- AU-IBAR conducted an AMR update survey in African countries. An AMR update survey report has been published.