

**COUNTRY PERSPECTIVE ON ANTIMICROBIAL RESISTANCE (AMR) BY MR LIM HUAN SEIN, DIRECTOR OF AQUACULTURE TECHNOLOGY DEPARTMENT, AGRI-FOOD & VETERINARY AUTHORITY, AS SINGAPORE REPRESENTATIVE AT THE 9<sup>TH</sup> COFI SUB-COMMITTEE ON AQUACULTURE SIDE EVENT ON AMR ON 25 OCTOBER 2017 IN ROME, ITALY**

Excellencies,  
Distinguished Delegates,  
Ladies and Gentlemen,

I am delighted to be here in Rome for the 9<sup>th</sup> Session of the Committee of Fisheries Sub-Committee on Aquaculture and honoured to be invited to deliver a statement on Singapore's perspective on Antimicrobial Resistance (AMR) at this side event on AMR. I will also share our perspective as a member of the Association of Southeast Asian Nations (ASEAN) and why it is critical for countries in the region and across continents to stay plugged into and work together on AMR.

2 The World Health Organisation (WHO), the World Organisation for Animal Health (OIE) and the Food Agriculture Organisation of the United Nations (FAO) are united in the fight against AMR. In Singapore, the Agri-Food and Veterinary Authority of Singapore (AVA), using a "One Health" approach, works closely with other agencies to tackle the issue of AMR. Representatives from AVA, which is the agency responsible for animal health and welfare, aquaculture and fisheries, plant health and food safety, work with the Ministry of Health (agency in charge of human health), The National Environment Agency (agency in charge of environment and retail food safety) and Public Utilities Board (agency in charge of water resources) to coordinate our efforts across the animal, human, food and environment sectors. We recognise that AMR requires a collective, multi-sectorial and multi-agency response.

3 Allow me to share some of the upcoming AMR programmes. First, on the AMR surveillance and research front, we are working across human, animal, food and environment sectors. We have conducted workshops bringing researchers studying

different aspects of AMR in different sectors together, so as to promote and facilitate collaboration.

4 Second, AVA conducts activities regularly to raise awareness of AMR to veterinarians and farmers, including fish farmers, leveraging on international events such as “World Veterinary Day” and “World Antibiotic Awareness Week”. As part of our outreach programmes, we are including topics on AMR in humans, animals and food in the school curriculum and public libraries.

5 Third, to provide alternatives to antimicrobial use, we work with feed producers and vaccine developers on fish vaccines. We also believe that good biosecurity is the cornerstone of a good antimicrobial stewardship programme on the farm as it prevents infection and reduce the need for antimicrobials.

6 Fourth, to optimise and control antimicrobial use, Singapore monitors its use in the food producing sector. Food products in Singapore, including seafood are routinely tested by AVA for the presence of antibiotic residues. Animal feed used in our local farms, including aquaculture is also regularly tested for antibiotic residues or banned substances. We also do not allow antimicrobials to be used for growth promotion. AVA is also taking a long term approach towards strengthening our regulatory regime while ensuring that our industry can cope with the changes.

7 The aquaculture sector in ASEAN is growing rapidly and is a significant food producing sector and industry to ASEAN economies. If an epidemic of AMR infections occurs in the aquaculture sector, there would be significant impact to the ASEAN economies, with serious aquatic animal and public health consequences. It will also threaten the progress of the Millennium Development Goals and Sustainable Development Goals. Singapore imports more than 90% of its food, including that of finfish. Anything that affects our food security is of great interest to us as well. Given the significant aquaculture and fisheries trade in the world, it is imperative for countries to come together to tackle the problem. We need to prevent a situation where food safety and food security of the world is affected because of AMR.

8 At the 38<sup>th</sup> Meeting of the ASEAN Ministers of Agriculture and Forestry (AMAF) in 2016, the Ministers agreed to enhance cooperation in AMR in agriculture and accepted Singapore's offer to lead the coordination of ASEAN AMR efforts in the livestock and aquaculture sector. Since then, we have developed the ASEAN Guidelines on Prudent Use of Antimicrobials in Livestock to assist Member States to develop national guidelines, according to local contexts and veterinary systems. We are now working to develop similar guidelines and assist countries to implement AMR initiatives for the aquaculture sector. Singapore currently hosts several academic institutions on AMR research, and a world-class food safety laboratory which is also the OIE Collaborating Centre for Food Safety. The Centre has conducted workshops for ASEAN member states on drug residues testing in seafood products. We look forward to working or collaborating with other collaborating centres and reference laboratories in AMR research and training.

9 Singapore hopes to collaborate with countries, regions and international organisations to combat AMR, especially in the aquaculture sector and seek your support for our participation in work projects. We believe that Singapore can play a role in the global agenda for AMR. I look forward to meeting you during the rest of the meeting days.

Thank you.

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