

## ASEAN Strategic Framework to Combat Antimicrobial Resistance through One Health Approach [2019-2030]

### Vision

An ASEAN region working together towards the prevention of the development and spread of AMR to achieve national, regional, and global health security, and the sustainable development goals for the human, animal, food, and environmental health sectors.

### Mission

To formulate and implement an ASEAN regional action plan adopting the One Health Approach in combating AMR through the comprehensive multisectoral and multidisciplinary engagement and participation of all governments and stakeholders.

| Strategies  | Activities  |   |  |   |
|---|---|---|--|---|
|   | Human   | Animal and Agriculture  | Food Safety  | Environment   |
| <b>Strategic Objective 1: To strengthen education and public awareness on AMR</b>   |   |   |  |   |
| Inclusion of AMR in the educational programmes of undergraduate and graduate students, as well as the continuing education of professionals | Establishment of AMR as a core component of undergraduate, graduate, and professional education, including training and development for health care providers and allied health professionals | Establishment of AMR as a core component of undergraduate, graduate, and professional education, including training and development for veterinarians and those in the agricultural sectors | Establishment of AMR as a core component of undergraduate, graduate, and professional education, including training and development for food producers, and food technologists | Integration of the ecology of AMR in <b>human</b> , soil, and water microbiomes in educational programmes of related professional courses |
| Conduct of effective public communication   | Conduct of AMR awareness and advocacy campaigns,  | Conduct of AMR awareness and advocacy campaigns, symposia, and workshops  | Conduct of awareness and advocacy campaigns on interlinkages of AMR to   | Use of communication, education, public awareness (CEPA) tools to enable  |

| Strategies   | Activities  |  |  |   |
|--|---|--|--|---|
|  | Human   | Animal and Agriculture   | Food Safety  | Environment   |
| programs on AMR  | symposia, and workshops among health care professionals, patients, and the general public.  | among veterinarians, farmers, pet owners, feed manufacturers, veterinary pharmaceuticals, distributors of veterinary drugs, veterinary technicians, paraprofessionals, food animal producers, and students | environmental health through campaigns, symposia, and workshops among consumers and professionals in the food industry including the promotion of healthy and nutritious diets | greater understanding on the interlinkages of the issue of AMR with biodiversity and the environment in general including specific actions like proper disposal of wastes with antimicrobials in various ecosystems from water bodies to forests and other ecosystems, etc. |
|  | Dissemination of information to target groups using different information, education and communication (IEC) materials such as videos, posters, flyers, and slide presentations, as well as public and social media |  |  |   |
|  | Celebration of the annual World Antibiotic Awareness Week and conduct of other campaigns.   |  |  |   |
|  | Impact assessment of communication plans / campaigns  |  |  |   |
| <b>Strategic Objective 2: To establish and strengthen surveillance systems for AMR</b>                                     |   |  |  |   |
| Establishment and strengthening of surveillance systems for AMR of the human, animal, food safety, and environment sectors | Strengthening and capacitation of AMS on existing global standards for surveillance for AMR on human health (e.g., WHONET, GLASS, AMU Surveillance)   | Strengthening and capacitation of AMS on existing global standards for surveillance for AMR on animal health (e.g. ATLASS)   | Establishment of systems and standards for surveillance of AMR in the food sector (e.g. ATLASS)  | Establishment of systems and standards for surveillance of AMR in the environment sector  |
|  |   |  |  | Feasibility assessment of using protected area management systems including park rangers in ASEAN to augment surveillance capacity for AMR  |

| Strategies   | Activities  |  |   |   |
|--|---|--|---|---|
|  | Human   | Animal and Agriculture   | Food Safety   | Environment   |
|  |   |  |   | Feasibility assessment of using ASEAN Clearing House Mechanism to assist in the sharing of information on incidents of AMR in protected areas to strengthen surveillance in the ASEAN region  |
| Building of a network of laboratories for the detection of AMR in the ASEAN and strengthening of existing networks | Capacitation of laboratories in conducting AMR surveillance for priority pathogens in human health (e.g., WHONET training, Quality Assurance) | Establishment of laboratory capacity to conduct AMR surveillance for priority pathogens specific for the following: companion animals, livestock, aquaculture, and agriculture (e.g., Quality Assurance) | Establishment of laboratory capacity to conduct AMR surveillance for priority pathogens among food products (e.g., Quality Assurance) | Establishment of laboratory capacity to conduct antimicrobial surveillance for priority pathogens in soil, water, buildings and other facilities (e.g., Quality Assurance)  |
| Improvement and establishment of mechanisms for monitoring and surveillance of antimicrobial use (AMU)             | Capacitation of ASEAN member states in monitoring AMU using existing global methodologies in human health (i.e. WHO methodology on AMU)       | Capacitation of ASEAN member states in monitoring AMU using existing global methodologies for animal health (i.e. OIE and FAO)   | Establishment of systems and methodologies for the monitoring and surveillance of AMU across the food value chain.                    | Feasibility assessment of including hubs for economic activities, not limited to tourism, such as export processing zones, public markets, agricultural plantations, livestock farms, etc. as part of a strengthened surveillance system to monitor AMR incidents |
| Integration of the AMR surveillance programs for human, veterinary, food, and plant antimicrobials                 |   |  |   |   |

| Strategies  | Activities   |  |  |   |
|---|--|--|--|---|
|   | Human  | Animal and Agriculture   | Food Safety  | Environment   |
| <b>Strategic Objective 3: To strengthen infection prevention and control strategies</b>     |  |  |  |   |
| Implementation of AMR prevention measures across the AMS                                    | Strengthening of public compliance with the National Immunization Programs of the member states.                 | Promotion of infection prevention strategies among <b>animals</b> (e.g., vaccination)  | Enhancing sanitation and hygiene in food handling practices (e.g. handwashing) | Increasing of investment in infrastructure, support facilities and equipment to meet the demands of infection prevention and control. |
|   | Enhancing sanitation and hygiene in health care (e.g. handwashing, appropriate use of shared medical items)      |  |  |   |
| Implementation of AMR control measures across the AMS                                       | Strengthening of the implementation of infection prevention and control (IPC) standards in healthcare facilities | Implementation of Good Animal Husbandry Practices (GAHP) and Good Aquaculture Practices (GAqP) as national policies in promoting biosecurity in the animal health sector, and good animal health management in farming |  |   |
| <b>Strategic Objective 4: To optimize the use of antimicrobials across relevant sectors</b> |  |  |  |   |
| Enhancement of regulatory systems and mechanisms for antimicrobials across                  | Implementation of no prescription-no antimicrobial sales for human health as                                     | Implementation of no prescription-no antimicrobial sales for animal health as decided by the national  | Establishment and enforcement of standards regarding antimicrobials in         | Establishment of accountability systems for private companies or manufacturers of   |

| Strategies  | Activities  |   |   |                |
|---|---|---|---|----------------|
|   | Human   | Animal and Agriculture  | Food Safety   | Environment    |
| the AMS   | decided by the national authority in human medicine   | authority in veterinary medicine.<br><br>Phase out of antimicrobials as growth promoters in animal health   | food products based on Codex or other relevant international standards.   | antimicrobials |
|   | Establishment of the systems to track, trace, and control the distribution and use of human antimicrobials  | Establishment of systems to track, trace, and control the distribution and use of veterinary antimicrobials   |   |                |
| Implementation of Antimicrobial Stewardship Programs (ASP) and treatment measures across all sectors in the AMS | Tapping or engagement of philanthropic organizations on campaign to strengthen antimicrobial stewardship  |   |   |                |
|   | Implementation of antimicrobial stewardship programs and standardized treatment guidelines and practices for combating AMR in the human health sector | Implementation of antimicrobial stewardship programs and standardized practices for combating AMR in the livestock, aquaculture and agriculture sectors | Development, establishment, enforcement, and strengthening, as appropriate, food control systems. This includes the review and modernization of national food safety legislation and regulations to ensure that food producers and suppliers throughout the food chain operate responsibly and address AMR, including prudent use of antimicrobials in veterinary |                |

| Strategies   | Activities   |   |                                  |             |
|--|--|---|----------------------------------|-------------|
|  | Human  | Animal and Agriculture  | Food Safety                      | Environment |
|  |  |   | and human medicine. <sup>1</sup> |             |
|  | Develop guidelines for the appropriate use of antimicrobials in human health   | Implement the ASEAN guidelines for the prudent use of antimicrobials in livestock         |                                  |             |
|  | Improving human resource adequacy and proficiency in antimicrobial use, diagnosis, and treatment of infectious diseases. | Develop guidelines for the prudent use of antimicrobials in animals other than livestock. |                                  |             |
| <b>Strategic Objective 5: To conduct research to support the implementation of the ASEAN Strategic Plan to Combat AMR through One Health approach</b>                            |  |   |                                  |             |
| Provision of a platform for the AMS to share and disseminate existing researches on AMR (e.g. websites, research fora, conferences, publications)                                |  |   |                                  |             |
| Strengthening of national and regional capacity to encompass research and development of new antimicrobials and other alternatives, diagnostic health technologies, and vaccines |  |   |                                  |             |
| <b>Strategic Objective 6: To ensure adequate and sustainable resource management and mobilization, as appropriate at national or</b>   |  |   |                                  |             |

| Strategies   | Activities |                        |             |             |
|--|------------|------------------------|-------------|-------------|
|  | Human      | Animal and Agriculture | Food Safety | Environment |
| <b>regional levels, for the implementation of the regional AMR activities</b>  |            |                        |             |             |
| Ensuring that activities of national and regional action plans are sustainably financed by governments and other stakeholders, with effective monitoring and evaluation mechanisms   |            |                        |             |             |
| Fostering of international collaboration and partnerships, as well as benchmarking, in the sharing of technical expertise and experience in the ASEAN network  |            |                        |             |             |
| Encourage regular policy dialogues and exchanges on AMR, as well as the development of a resource database and network to facilitate information sharing and technical cooperation among agencies in the ASEAN and ASEAN Plus Three member states. <b>(ASEAN Plus Three)</b> |            |                        |             |             |
| Appointment of an AMR focal point in each sector<br>Institutionalization of an AMR focal point in each sector  |            |                        |             |             |
| Mobilization of resources from local and international partners  |            |                        |             |             |

### Indicative Timeline of Implementation

| Strategies  | Short-Term<br><i>by 2020</i> | Medium-Term<br><i>by 2025</i> | Long-Term<br><i>by 2030</i> |
|---|------------------------------|-------------------------------|-----------------------------|
| <b>Strategic Objective 1: To strengthen education and public awareness on AMR</b>   |                              |                               |                             |
| Inclusion of AMR in the educational programmes of undergraduate and graduate students, as well as the continuing education of professionals |                              |                               |                             |
| Conduct of effective public communication programs on AMR   |                              |                               |                             |
| <b>Strategic Objective 2: To establish and strengthen surveillance systems for AMR</b>  |                              |                               |                             |
| Establishment and strengthening of surveillance systems of the human, animal, food safety, and environment sectors                          |                              |                               |                             |
| Building of a network of laboratories for the detection of AMR in the ASEAN and strengthening of existing networks                          |                              |                               |                             |

Adopted by ASEAN Health Ministers through ad-referendum consultation

| Strategies  | Short-Term<br>by 2020 | Medium-Term<br>by 2025 | Long-Term<br>by 2030 |
|---|-----------------------|------------------------|----------------------|
| Improvement and establishment of mechanisms for monitoring and surveillance of antimicrobial use (AMU)  |                       |                        |                      |
| Integration of the AMR surveillance program for human, veterinary, food, and plant antimicrobials   |                       |                        |                      |
| <b>Strategic Objective 3: To strengthen infection prevention and control strategies</b>   |                       |                        |                      |
| Implementation of AMR prevention measures across the AMS  |                       |                        |                      |
| Implementation of AMR control measures across the AMS   |                       |                        |                      |
| <b>Strategic Objective 4: To optimize the use of antimicrobials across relevant sectors</b>   |                       |                        |                      |
| Enhancement of regulatory systems and mechanisms for antimicrobials across the AMS as decided by the national authority in human and veterinary medicine  |                       |                        |                      |
| Implementation of Antimicrobial Stewardship Programs (ASP) and treatment measures across all sectors in the AMS   |                       |                        |                      |
| <b>Strategic Objective 5: To conduct research to support the implementation of the ASEAN Strategic Plan to Combat AMR through One Health approach</b>   |                       |                        |                      |
| Provision of a platform for the AMS to share and disseminate existing researches on AMR (e.g. websites, research fora, conferences, publications)   |                       |                        |                      |
| Strengthening of national and regional capacity to encompass research and development of new antimicrobials and other alternatives, diagnostic health technologies, and vaccines                            |                       |                        |                      |
| <b>Strategic Objective 6: To ensure adequate and sustainable resource management and mobilization, as appropriate at national or regional levels, for the implementation of the regional AMR activities</b> |                       |                        |                      |
| Ensuring that activities of national and regional action plans are sustainably financed by governments and other stakeholders, with effective monitoring and evaluation mechanisms                          |                       |                        |                      |
| Fostering of international collaboration and partnerships, as well as benchmarking, in the sharing of technical expertise and experience in the ASEAN network   |                       |                        |                      |



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| <b>Strategies</b>   | <b>Short-Term<br/><i>by 2020</i></b> | <b>Medium-Term<br/><i>by 2025</i></b> | <b>Long-Term<br/><i>by 2030</i></b> |
|---|--------------------------------------|---------------------------------------|-------------------------------------|
| Encourage regular policy dialogues and exchanges on AMR, as well as the development of a resource database and network to facilitate information sharing and technical cooperation among agencies in the ASEAN and ASEAN Plus Three member states. (ASEAN Plus Three) |                                      |                                       |                                     |
| Mobilization of resources from local and international partners   |                                      |                                       |                                     |