



Food and Agriculture
Organization of the
United Nations



World Health
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World Organisation
for Animal Health



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Outcome of the country level mapping of integrated surveillance activities

Approach to situation analysis at country level and outcomes



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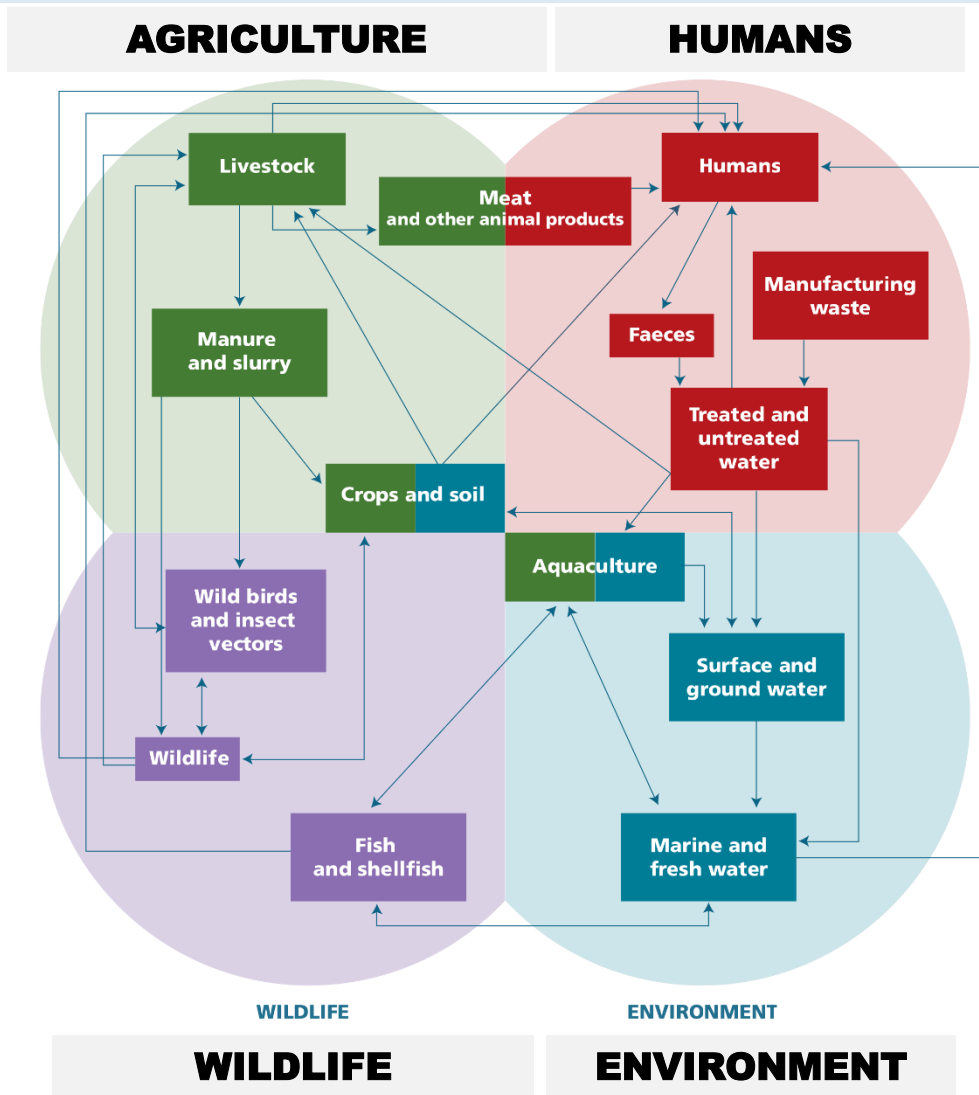
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The need for a One Health approach



- AMR in bacterial organisms **does not recognize biological, physical, or sectoral boundaries.**
- Its potential **transmission pathways** include broad areas of disciplines that are often traditionally segregated: **agriculture, humans, environment, and wildlife**
- AMR therefore needs to be viewed with a **cross-sectoral lens** and addressed with a **One Health approach**



- The collective and coordinated actions across these multiple disciplines can leverage on the strengthened **sectoral accountability towards AMR mitigation**.
- This ensures that the efforts of nations to address this global issue will benefit from the respective **expertise** of each sector, and that actions are also well-sustained by their **respective mandates**

Political Declaration of the High-level Meeting on Antimicrobial Resistance



UN General Assembly High-Level Meeting on antimicrobial resistance 2024

Surveillance and Monitoring

Commitment 97

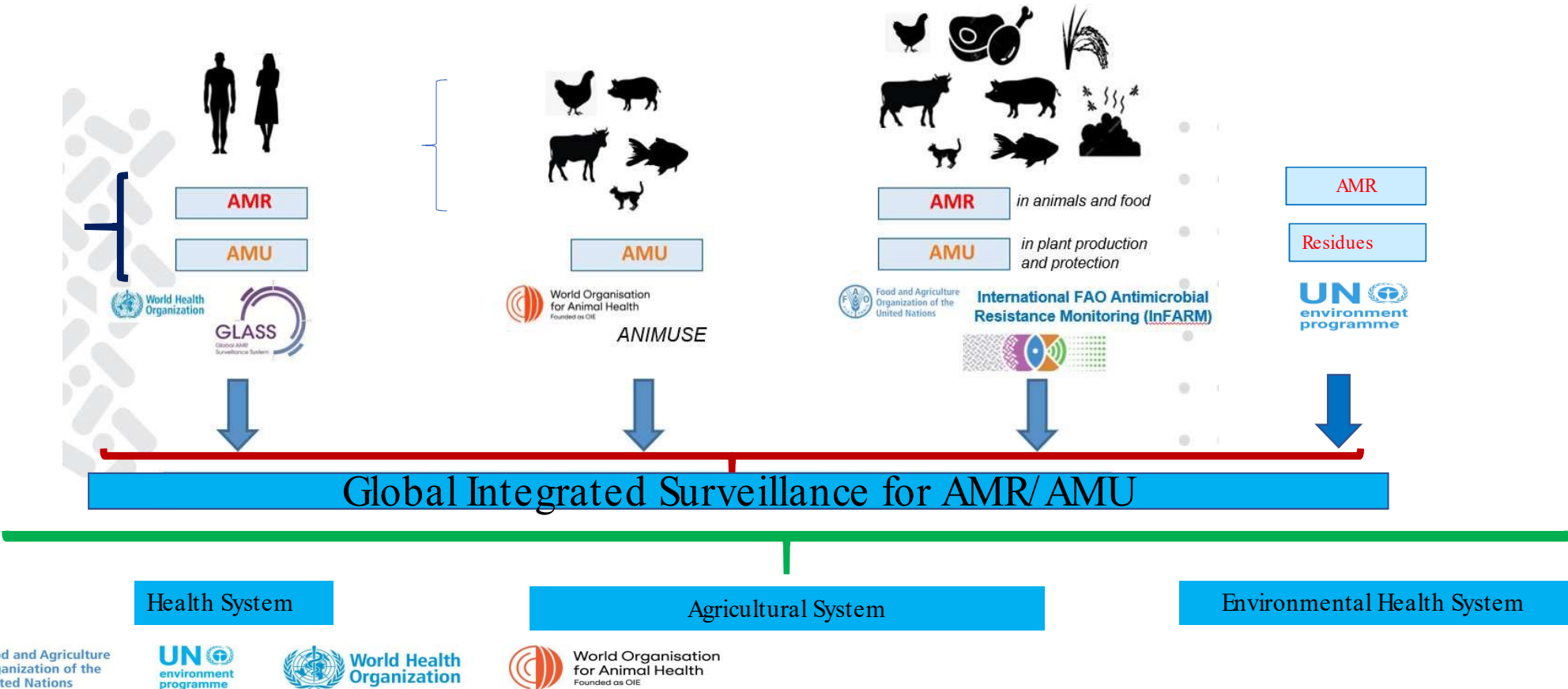
Strengthen national capacities for sustainable, sector-specific, integrated and interoperable **surveillance systems** for antimicrobial resistance and antimicrobial use.

Commitment 98

Encourage all countries to report quality **surveillance data** on antimicrobial resistance and antimicrobial use by 2030, through existing global **surveillance systems** through GLASS, ANIMUSE and InFARM for future use in Quadripartite GISSA (in dev)

GISSA - Global Architecture for Integrated AMR and AMU Surveillance (under development)

Quadripartite Global Surveillance Architecture

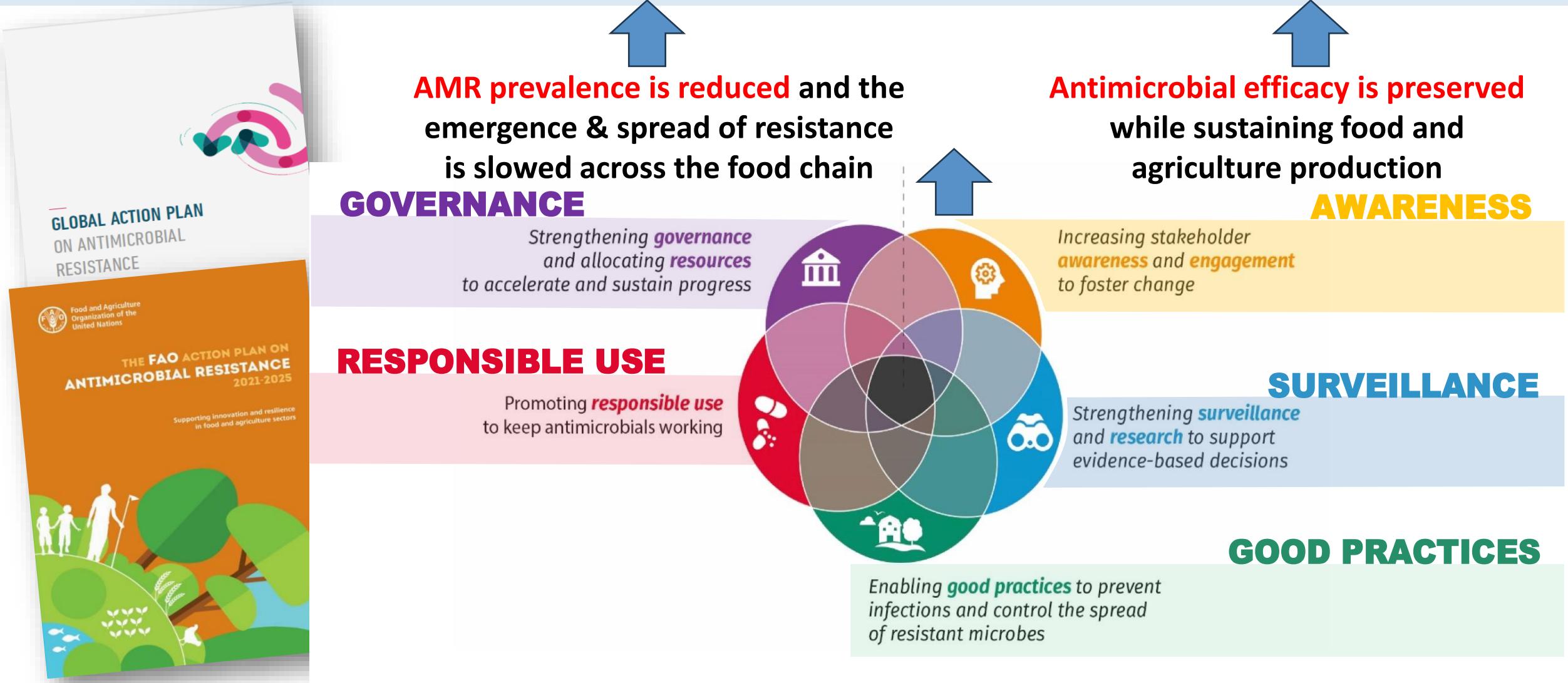


Participation in the global data platform

Country	FAO-InFARM	WHO-GLASS	WOAH-ANIMUSE
1. Bangladesh			
2. Bhutan			
3. Cambodia			
4. India			
5. Indonesia			
6. Japan			
7. Lao PDR			
8. Malaysia			
9. Nepal			
10. Pakistan			
11. Philippines			
12. Republic of Korea			
13. Sri Lanka			
14. Thailand			
15. Vietnam			

Regional workshop on the interpretation of AMU / AMR data to improve evidence-based decision making in Asia and the Pacific, November 18-19, 2025, Bangkok, Thailand

FAO's VISION: Food and agriculture sectors, dependent livelihoods and economies, are made resilient to the impacts of AMR



Reduce the need for antimicrobials on farms for sustainable agrifood systems transformation initiative (RENOFARM)



LAUNCH IN CHONGQING, CHINA, APRIL 2024

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TARGETS

- **100 countries participate** in the initiative, with their NAPs for AMR fully implemented in Food and Agriculture.
- **50% of animal/plant health workers** from participating countries are trained.
- **80% of all participating countries** contributing data to InFARM.

Regional Focus: FAO RAP Strategy for AMR in the Asia-Pacific Region



The Fleming Fund

Ministry of Food and
Drug Safety

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**The
Pandemic
Fund**

- # 1 Understand the organizational, technical, political, and socio-cultural context



- ## 2 Develop and/or apply tools and frameworks to address identified gaps



- ### 3 Provide **training and support** to build needed capacities in food and agriculture



- ## 4 Facilitate **coordination and partnerships** that can reinforce effective AMR mitigation in food and agriculture



- ## 5 Enable **sustained** implementation



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Objective 2 of FAO Action Plan on AMR 2021-2025: Surveillance and research



Guidelines for monitoring and surveillance of AMR, AMU, and antimicrobial residues



Regional workshop on AMR surveillance in human, animal and environment sectors



“Regional hands-on training on isolation, identification, and antimicrobial susceptibility testing for *Enterococcus* spp.”



FAO-ATLASS (Assessment Tool for Laboratories and AMR Surveillance Systems)



Regional Training on the International FAO Antimicrobial Resistance Monitoring (InFARM) System and IT platform



ANNUAL Proficiency Testing for Antimicrobial Susceptibility Testing (PTAST)

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Guidelines for Monitoring and Surveillance of AMR, AMU and Antimicrobial Residues



Volume 1:
Bacteria from healthy
food animals intended
for consumption

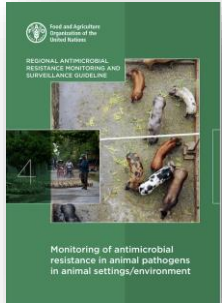
VIEWS

1,688



DOWNLOADS

3,245



Volume 4: Bacteria from
animal environment

VIEWS

2,153

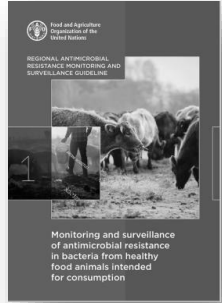


DOWNLOADS

2,864



Volume 5: Antimicrobial
use at the farm level



Volume 6: Antimicrobial
residues in food of animal
origin



Volume 3: Bacterial
pathogens from diseased
aquatic animals

VIEWS

2,238



DOWNLOADS

1,598



Regional benchmarking workshop on AMR surveillance in human, animal and environmental sector

Recommendations related to:

1. Integrated surveillance - map AMR/AMU data sources and areas of integration for country case studies and establish regional TWG
2. Strengthening sectoral and intersectoral lab/surveillance networks and capacities of national coordination centres



Key Regional Tripartite AMR Project (with EU) activities in 2025:

1. National landscaping workshops and case studies for situation analysis and strengthening of one health integrated surveillance of AMR and AMU
2. Strengthening technical coordination of AMR laboratories



Country landscaping workshop for situation analysis and strengthening of one health integrated surveillance of AMR and AMU

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- GOAL** ➡ To understand the current situation of national AMR/AMU surveillance and opportunities for integration
- OUTPUT** ➡ A case study detailing the status of AMR/AMU surveillance and possible integration

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Malaysia – main takeaways

Key Gaps and Challenges in the Malaysian Context



Malaysia – main takeaways

Next Steps for Malaysia – as recommended by Quadripartite and international experts

1. Governance mechanism

- Establish a national coordination body with the legal mandate to oversee integrated AMR/AMU surveillance

2. Standardization

- Harmonize data collection protocols, definitions, measurements (e.g., for AMU and AMR indicators), and refined panels of antimicrobials to do integrated analysis.

3. Pilot Integration

- Begin with priority organisms (e.g., *E. coli*, *Salmonella*) and across the food chain or the highest-risk interfaces (e.g., food chain/retail that is closest to the consumer)

4. Digital Infrastructure

- Develop or adapt a common IT platform for secure, sectoral data uploads and shared analytic methodology including data visualizations.

5. Capacity Building

- Train focal points in cross-sectoral data interpretation and risk communication.

Malaysia – main takeaways

Surveillance Model	Key Features	Relevance to Malaysia
JIACRA (European Union)	Joint analysis of AMU and AMR in humans and animals using standardized datasets across EU countries; developed AMU/AMR outcome indicators for harmonized reporting and has a detailed methodology for integrated analysis (AMU-AMR associations at the ecological level); strong regulatory backing	Demonstrates how harmonized data and joint interpretation enables evidence-based policy; regulatory basis is critical
CIPARS (Canada)	Stepwise integration of human, animal, and retail food data, including AMU from prescriptions, farms/end user, hospital purchase data (humans), pharmacy dispensation data (humans) and sales of antimicrobials intended for use in animals	Highlights the role of coordinated sampling across sources and shows feasibility of gradual integration through phased pilot sites; combines both voluntary participation and regulatory mechanisms for data collection.
NAOR (Japan)	Consolidated reporting from JANIS and JVARM; one of the earliest AMR surveillance programs in Asia with contextualized national indicators	Highlights the role of national coordination and country-specific indicators



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State-level landscaping workshop for situation analysis and strengthening of one health integrated surveillance of AMR and AMU in India



4–5 December 2025

Gandhinagar, Gujarat, India

Regional TWG on AMR/AMU integrated surveillance in Asia-Pacific

Functions

- provide technical advice to countries on use integrated AMR/U surveillance data
- advocate for regional/country implementation of AMR/U guidance and initiatives generated at the global level (QTG-AIS guidelines, international standards, Codex, WOAHA,
- support data reporting to GLASS, ANIMUSE, InFARM and GISSA
- synthesize and analyse surveillance data from individual countries on a regional level
- serve as the primary communications channel with relevant stakeholders

Composition

- regional and country experts with knowledge of technical areas relevant to sector-specific or integrated surveillance
- technical representative(s) from each engaged country, directly involved in the design and implementation
- subject matter experts from outside the region (surveillance, laboratory systems and integration of sectors),

Modality

- convene regularly, either online or in person
 - platform for knowledge and information exchange
 - discussions of harmonized reporting of AMU/AMR metrics and indicators should be held.
- anchored to Regional QPT TWG Action Track 5

Regional TWG on AMR/AMU integrated surveillance in Asia-Pacific



GROUP 1: Function of the platform

GROUP 2: Composition of the platform

GROUP 3: Modality of the platform

RAP regional AMR project partners



(FAO Reference Centre for AMR)



World Organisation for Animal Health
Founded as OIE
(Regional Representation for Asia and the Pacific)
(Sub-Regional Representation for South-East Asia)



Federation of Asian Veterinary Associations

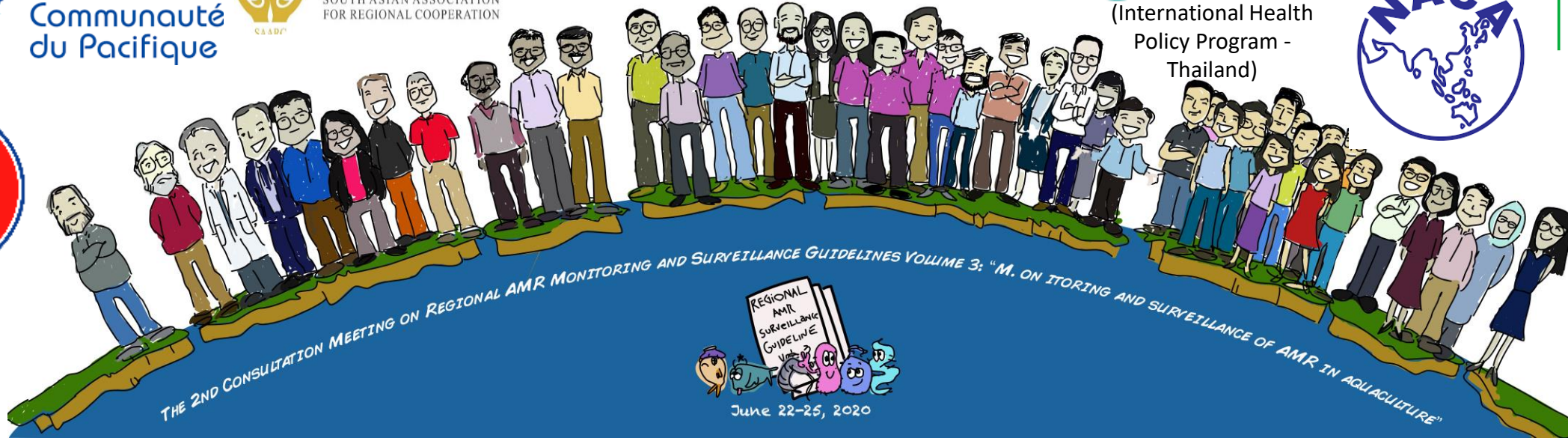


Pacific Community
Communauté du Pacifique



S A A R C
SOUTH ASIAN ASSOCIATION
FOR REGIONAL COOPERATION

THANK YOU FOR YOUR SUPPORT AND CONTRIBUTIONS!





Working together to fight antimicrobial resistance