





GROUP EXERCISE AMR (Day 1): Identify existing regional capabilities, needs, resources that could help in improving collection and reduction of AMU in aquatic animals

GROUP EXERCISE

Group 1: Regional capabilities

Group 2: Coordination

Group 3: Resources

Group 4: Partnerships including Public Private Partnerships (PPP)

Outcome

At the end of the group exercise participants are able to share views and inputs to improve collection and reduction of antimicrobial use in aquatic animals.

Time:

Group discussion: 40 minutes per group

Plenary: 40 minutes (10 minutes per group)

GROUP EXERCISE

Group 1: Regional capabilities

Regional capabilities including regional governance, polices, institutions e.g collaborative centres, reference laboratories, early detection, surge capacities, response capabilities, capacity building programmes, information sharing on aquatic animal treatments, research, technological capabilities to monitor and reduce antimicrobial use in aquatic animals.

Q1: Current state of play

Q2: Identify the common challenges/gaps?

Q3: What priorty action you recommend?

Group 1: Regional capabilities

Current state of play	Challenges	Priority actions /needs
Regional guidelines exists	•Guidelines more on terrestrial animals	Aquatic guidelines
•AM use in Hatchery only (not in ponds / open system)	 Hard to quantify of AM use on farms difficult to know Risk that farmers stop treatment 	 Registration of AM used on farms Promote prescription Farmers awareness
Vet Prescription : few countries	before •Lack of aquatic vet	Vet training / registration of vet
•Surveillance : on disease AND AMU	•Early detection : if disease already there often too late for treatment	
•Testing capability : official or private lab	•Farmers don't use the service •Over infection : lab diagnostic can be difficult	Encourage sampling and testingPromotion of alternatives to AB

GROUP EXERCISE

Facilitators: Dante Mateo

Group 2: Coordination

Coordination including internal and external coordination with public and private stakeholders, coordination mechanisms, national and regional networks on aquatic animal health, coordination with regional and international partners, research institutions, industry to monitor and reduce antimicrobial use in aquatic animals.

Q1: Current state of play including strengths if any?

Q2: Identify the common challenges/gaps?

Q3: How these challenges can be addressed?

Group 2: Coordination

Current state of play RELEVANT TO COORDINATION

As for size and scope of industry:

- Aquaculture as a sector is new in some countries, so AMU is not even practiced (e.g., Vanuatu)
- Human resource are currently limited; it is easy to coordinate (e.g., NZ)

As for nature of prescription practices in the country:

- Off-label use requires prescription and no need to report;
- Company repackages AMs for humans, animals so it is difficult to track
- Aquatic professionals cannot prescribe, only vets
- Human medicines cannot be accessed by vets
- Vet prescription can be dispensed from human pharmacy

As for regulations:

- Actions are dependent on law; enforcement is also an issue
- Legal tools are outdated and slanted more for human health
- Dependent on political appetite

Challenges RELEVANT TO COORDINATION

- Lack of regulation that will guide relevant stakeholders; Importation of AMs → data capture not in the legislation
- Lack of enforcement of regulations
- Poor communication across key players
- Lack of access to reliable advice
- Misplaced trust (rely on neighbor advice more than vets')
- Setting requirements for AMR could be a trade barrier (SPS arrangement limitations)

Priority actions/needs RELEVANT TO COORDINATION

- Updating of legislation that will support coordination
- Provide relevant training including communication
- Build trust

GROUP EXERCISE

Facilitators: Iddya Karunasagar

Group 3: Resources

Resources including human (competencies, workforce) material (equipment, supplies, consumables, software) and financial resource mobilisation, allocation of resources, leveraging resources to monitor and reduce antimicrobial use in aquatic animals.

Q1: Current state of play including strengths if any?

Q2: Identify the common challenges/gaps?

Q3: How these challenges can be addressed?

Current State of play	Challenges	Priority Actions /Needs
 AMU Data collection limited but data can be separated between terrestrial and aquatic 	-Farms in remote areas luck of laboratories - AMU data species specific luck of data	Stakeholders engagement is important for AMU data collection implementation
 Indonesia Limited AMU data based on research project India 	Access to veterinary storesLack of Government officials	Training of government officials especially for new aquaculture industries
 Quantitively data both for terrestrial and aquatic Malaysia, Fiji (unknown actual use of medicine if they end up in aquatics) 	 Financial challenges Data analysis: Luck of time or expertise Farmers are not engaged unknown benefits for them to report AMU 	Communication campaign and user-friendly platform (eg one stop shop) for current law and legislation for farmers.
Sales data are reported for aquatic animals for food consumption and ornamentals in Japan	- Farmers luck of knowledge of antimicrobials	 Collaboration / Partnerships for data analysis Explore alternative antimicrobial compounds
Aquatic animals sales and usage data. Sales data for		

Current State of play	Challenges	Priority Actions /Needs
List of antimicrobial for aquaculture China, Japan, Chile, Iran,		
List of banned antimicrobial Indonesia, India, Malaysia, Iran, Chile		
Treatment guideline Japan, Malaysia, Iran		

GROUP EXERCISE

Group 4: Partnerships including Public Private Partnerships (PPP)

The areas of collaborations (policy implementation, legal enforcement, surveillance, capacity building, communications), the level of partnerships (national, regional, international), PPP examples or opportunities to monitor and reduce antimicrobial use in aquatic animals.

Q1: Current state of play including strengths if any?

Q2: Identify the common challenges/gaps?

Q3: How these challenges can be addressed?

Current state of play	Challenges	Priority actions /needs
•Regulatory mechanism to monitor AMR •No PPP in place (Bangladesh, India, Taiwan, LaoPDR) only livestock (LaoPDR) •Private hatcheries producing SPF seeds (Bangladesh) • Collect sales data only (Taiwan, Australia) •The national action plan includes PPP (B, Au, Taiwan, Singapore, Lao)	 Lack of awareness of danger of non-prudent AM use; lack of incentive to prudent use of AM. Farmers do not believe vets, rather than based on experience Lack of regional and sectoral collaboration to seek solutions with private sectors. Private sectors think AMU/AMR is a government issue (Taiwan, Laos, B) Farmers are worried about what they have. They don't want to be blamed of introducing the disease or AMR. Farmers don't see any benefit of providing usage data. Who is the responsible agency for PPP? 	•Awareness activities (private sectors are a key stakeholder; farmers should be the key player; •) •Financial incentives (free testing; \$\$ per reporting; market access; •Feedback on AMU/AMR to aquatic vets •Effective considerate timing and frequency of communication (e.g. short video through social media) •Reports have to be digestible and easily understandable by non-technical farmers •Frequent feedback from gov to private sector to improve their practices (e.g. website)

Group 1: Regional Capabilities

Facilitators: Eduardo Leaño

	Organisation	Name
1	New Caledonia	Dr Stephanie Andree Martin Ep Sourget
2	Korea R.O. observer	Dr Jaeok Kim
3	Philippines	Dr Joselito Somga
4	Sri Lanka	Dr Dulip Tharanga Kasagala Kahagala Hewage
5	Myanmar	Ms Yi Yi Cho
6	Timor-Leste	Mr Horacio Guterres
7	SPC	Dr Kevin Ellard
8	Temasek Life Sciences Lab.	
9	VetTrust	Dr Han Zi Yang

Group 2: Coordination

Facilitators: Dante Mateo

	Organisation	Name
1	Vietnam	Mr Ngoc Tien Nguyen
2	Korea RO	Dr Jinha Yu
3	New Zealand	Dr Rissa Williams
4	Singapore	Dr Diana Chee
5	Vanuatu	Dr Chelsea Simo
6	Thailand	Ms Siriwimon Thamgandeee
7	FAO RAP	Dr Mary Joy Gordoncillo
8	UVAXX	Dr Sunita Awate
9	CSIRO	Dr Nick Moody

Group 3: Resources

Facilitators: Iddya Karunasagar

	Organisation	Name
1	Malaysia	Ms Moi Eim Yeo
2	Iran	Dr Kazem Abdi
3	Fiji	Dr D M Wattegedara Chaminda Bandara Dissanayake
4	China	Dr Xiang Zhang
5	Japan	Prof. Manabu Furushita
6	Indonesia	Ms Christina Retna Handayani
7	WorldFish	Laura Khor
8	CEFAS, UK	Dr Athina Papadopoulou
9	Prime Group International	Mr Terence Tan

Group 4: Partnerships including PPP

Facilitators: Tikiri Priyantha

	Organisation	Name
1	Bangladesh	Mr Md Nowsher Ali
2	Laos	Mr Akhane Phomsouvanh
3	Chinese Taipei	Dr Yi-Ming Huang
4	Korea R.O. observer	Dr Jisu Park
5	India	Mr Sudhansu Sekhar Mishra
6	Australia	Dr Yuko Hood
7	FAO RAP	Dr Muhammad Usman Zaheer
8	Prime Aquaculture	Dr Masao Miyata
9	WOAH	Dr Kinley Choden