Assessing and improving the quality of disease notification to WOAH: Asia-Pacific experience in supporting early threat warning

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World Organisation for Animal Health
Founded as OIE

Organisation mondiale de la santé animale
Fondée en tant qu'OIE

Organización Mundial de Sanidad Animal
Fundada como OIE

General objectives

- Present WOAH's work to assess and improve disease reporting at regional level (also at global).
- Raise awareness of key deliverables for the 'Supporting early threat warning project under WOAH 7th Strategic Plan, funded by the Australian Department of Agriculture, Fisheries and Forestry (DAFF).
- Highlight impacts of the project at the regional level (i.e., that it's a pilot project, if successful - could be extended to other regions).

Section 1: Introduction to WOAH active search activity and on completeness and timelines project

Section 2: Supporting early threat warning in Asia: Australian supports to the implementation of WOAH 7th Strategic Plan - background & objective

Section 3: Progress and future outcomes

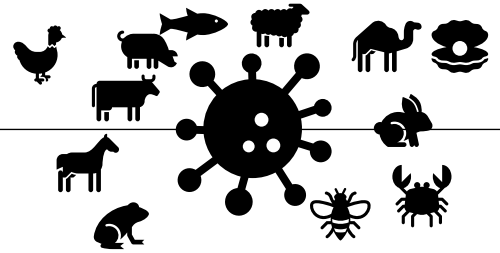
Section 4: Gap analysis of disease reporting and detection in Asia-Pacific region

Section 5: Proposed actions based on identified gaps in the analysis report

Section 1

Introduction to WOAH active search activity and on completeness and timelines project

Mandate of WOAH for disease reporting



Almost 100 years ago

Intergovernmental organisation ensuring transparency of the global animal disease situation - founding Members committed themselves to the legal obligation to report

20 years ago

International acknowledgment that official information alone is not sufficient, Members provided WOAH with mandate to conduct epidemic intelligence using other sources to support Members

Up to now

183 Members have progressively joined and committed to this obligation and these principles

WOAH Epidemic intelligence (EI) activity – official and unofficial sources

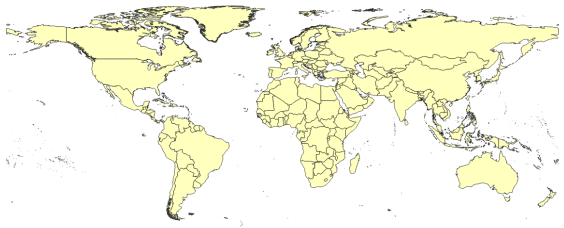
GLEWS platform — Global Early Warning and Response System for Major Animal Diseases, including Zoonoses

EIOS EPIDEMIC INTELLIGENCE FROM OPEN SOURCES

Reference laboratories (WOAH network)

Source Intelliriver Source

IBIS (Australia)



WOAH verifies with Members

Completeness and timelines project

Evaluate notification performance

Completeness

Completeness of WAHIS for selected listed diseases

Timeliness

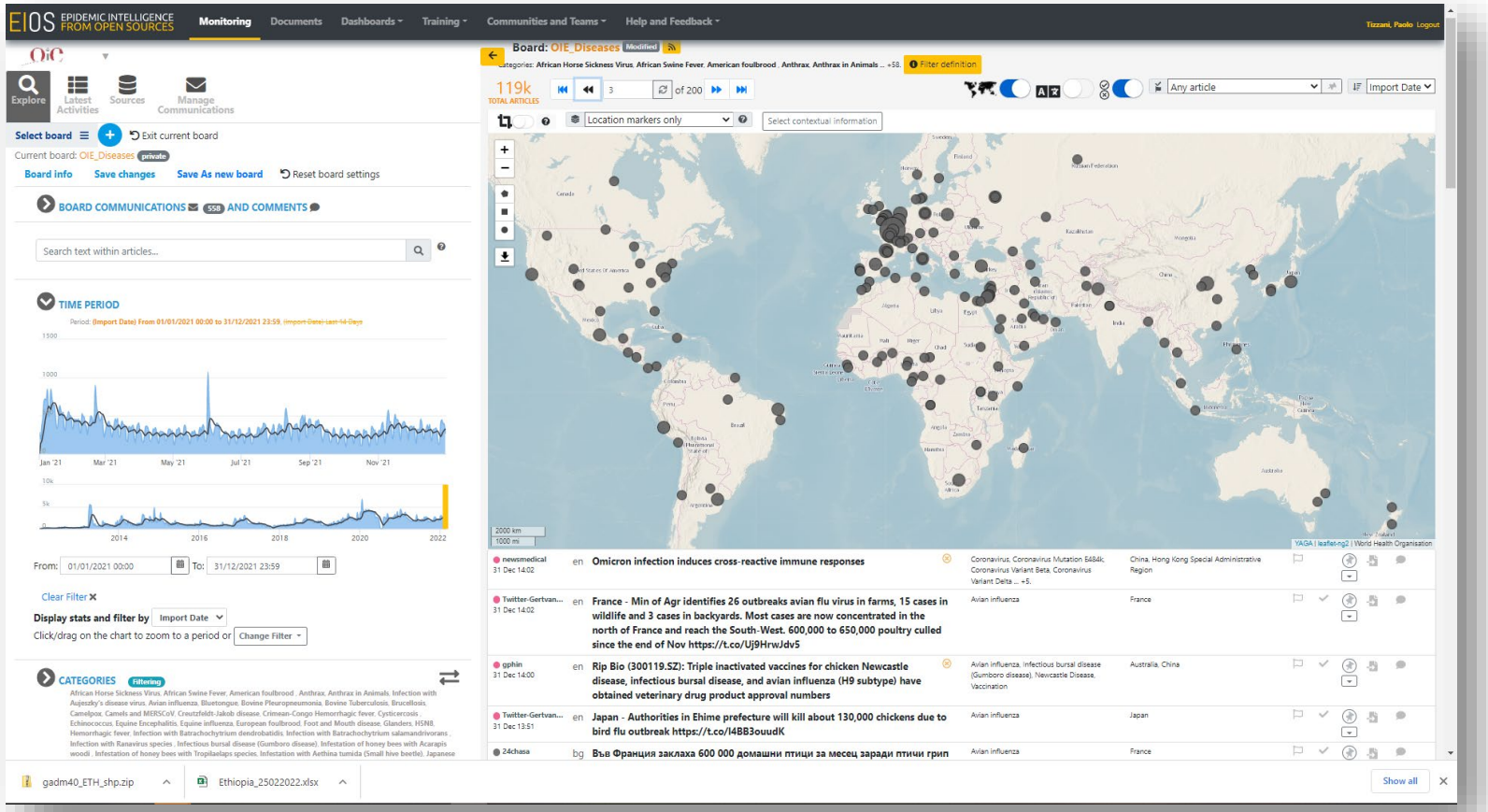
Submission time (immediate notifications, follow-up reports and six-monthly reports)

Assign scores to countries / territories based on their global submission time

Assess the need for actions (WOAH or Members) to improve identified gaps

EIOS system – key figures

- Used since end 2017
- Daily screening of the web for all listed and emerging diseases
- 15,000 sources
- 500 disease categories
- 15 languages
- 100,000 – 150,000 news / year
- Communication between WOAH and Members



EIOS EPIDEMIC INTELLIGENCE FROM OPEN SOURCES

Section 2

Supporting early threat warning in Asia: Australian supports to the implementation of WOAH 7th Strategic Plan - background & objective

Background

One of WOAH 's missions: to ensure transparency of the animal disease situation worldwide.

To meet this objective, WOAH collects official notifications of animal diseases from its Members and disseminates the information to the international community.

Title: Supporting early threat warning project for WOAH 7th Strategic Plan funded by the Australian Department of Agriculture, Fisheries and Forestry (DAFF).

Australian Government
Department of Agriculture, Fisheries and Forestry

Aim: to promote transparency in disease reporting and sharing.

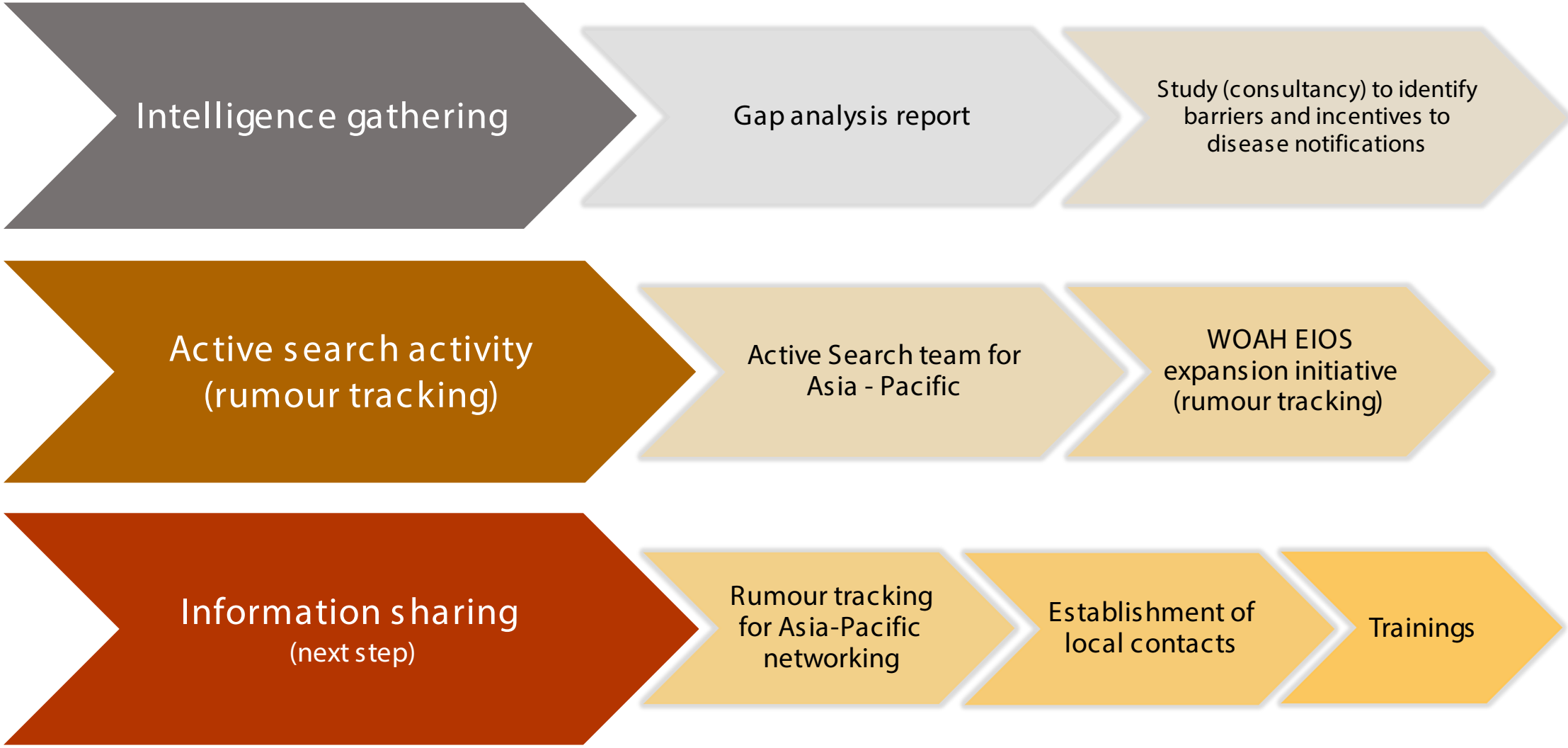
Objective: to strengthen WOAH's early warning systems in Asia and the Pacific region through intelligence-gathering, active search activity (rumour tracking), and information sharing.

Target countries: WOAH Members in Asia and the Pacific region.

Components:

1. Intelligence gathering - gap analysis, consultancy
2. Asia-Pacific rumour tracking
3. Development & implementation of a strategy – information sharing

How will we achieve the objective?



Section 3

Progress and future outcomes

Progress & future outcomes

Section 4

Gap analysis of disease reporting and detection in Asia-Pacific region

Gap analysis

Objective

Evaluate current animal disease detection capacity in Asia-Pacific region and identify areas for improvement

Data sources

- ✓ WAHIS: statistics on disease reporting
- ✓ WOAH active search : statistics on country transparency
- ✓ EIOS: statistics on rumour detection capacity

Gap analysis

Indicators

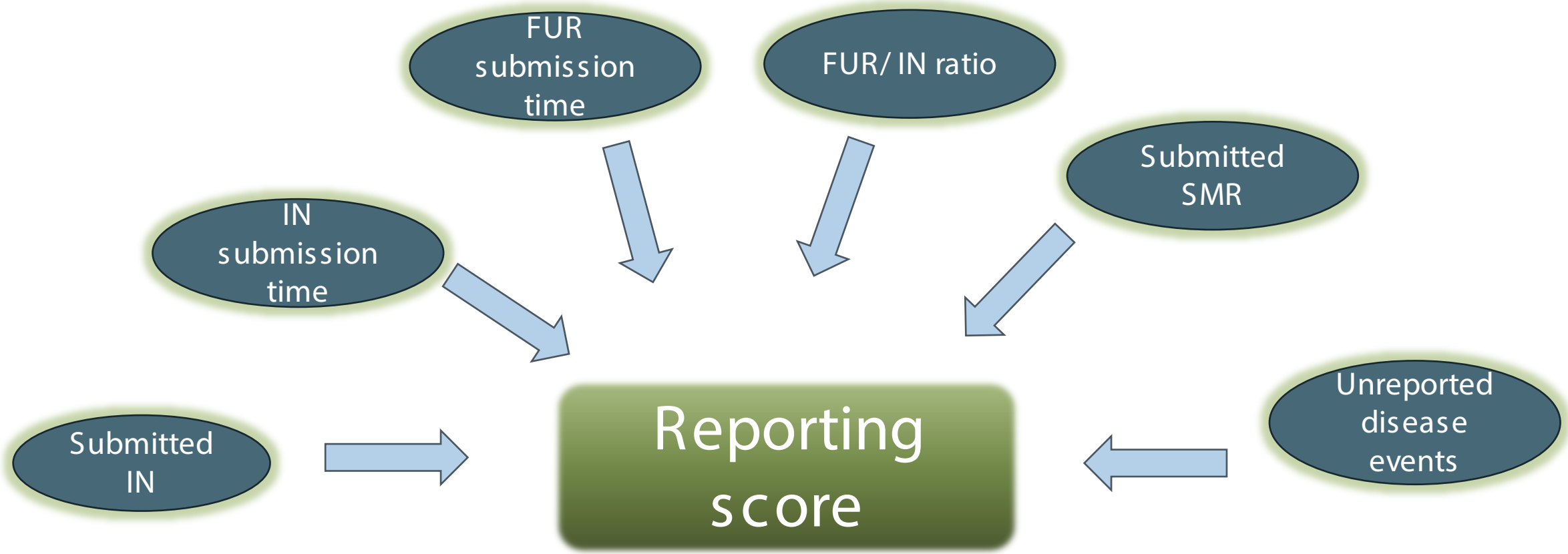
- Countries reporting performances through the Early Warning System (immediate notifications)
- Countries reporting performances through the Monitoring System (six-monthly reports)
- Country response to WOAH request for unreported events
- EIOS ability to detect unreported disease events

Reporting score

Detection score

Reporting score

Indicators



Percentage countries by group

Reporting score

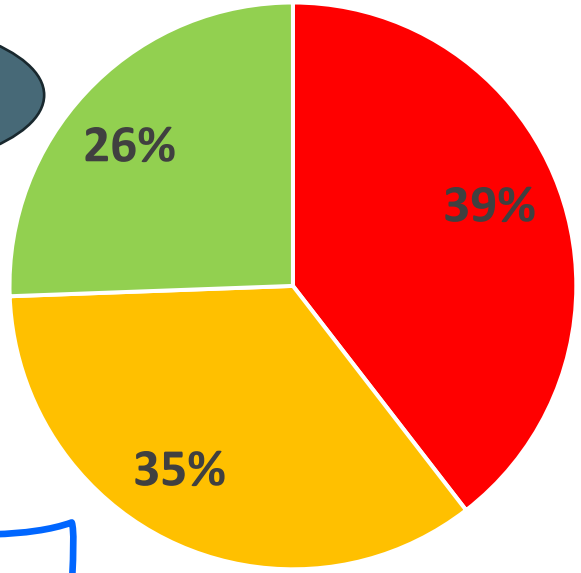
FUR submission time

FUR/ IN ratio

Submitted SMR

IN submission time

Submitted IN



Poor reporting

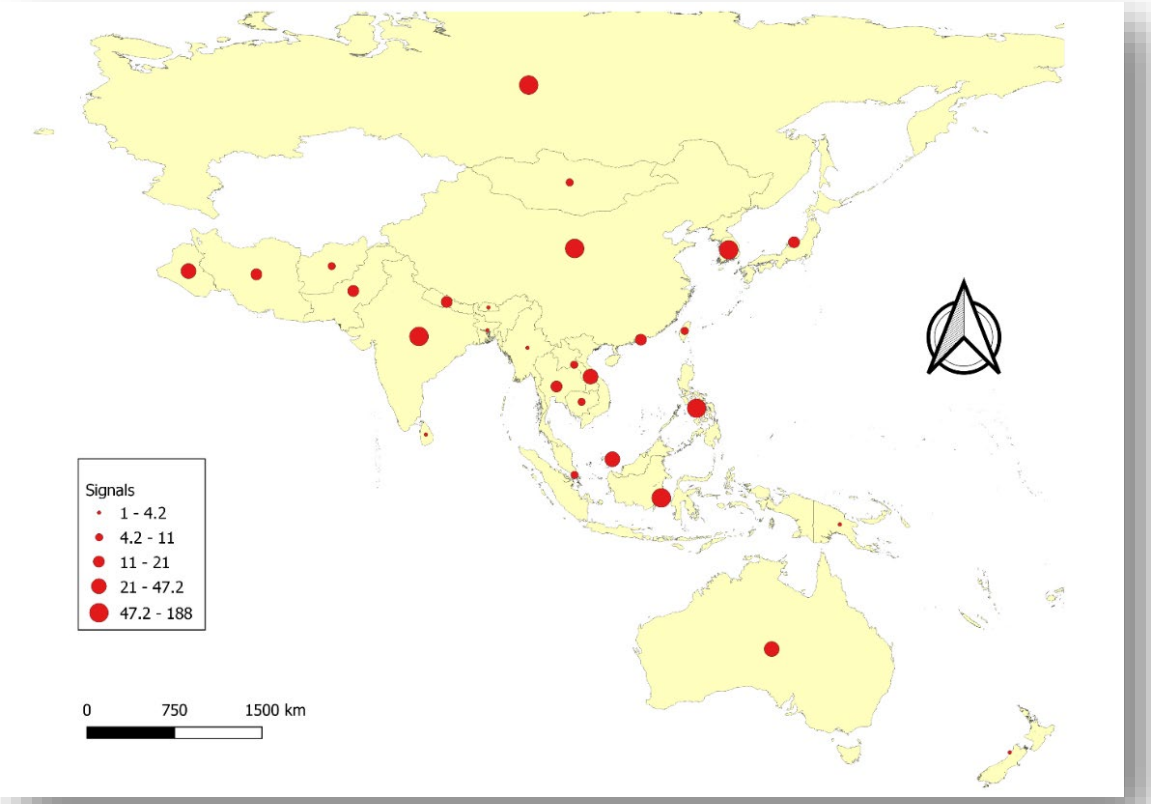
Unreported disease events

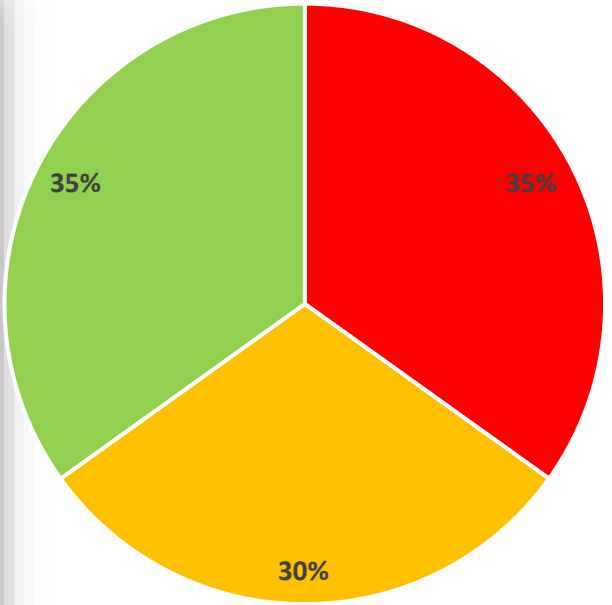
Good reporting

N = 43

Indicators and groups

Detection score





Low
Medium
High

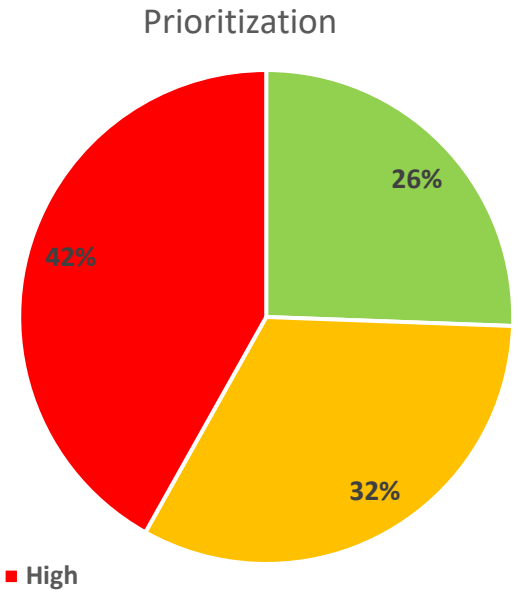
Poor detection

Good detection

N = 43

Combining reporting and detection scores

		Detection capacity score		
		Low	Medium	High
Reporting country score	Low	High priority	High priority	Medium priority
	Medium	High priority	Medium priority	Medium priority
	High	Low priority	Low priority	Low priority



N = 43

Transparency : high --> low priority
Transparency : medium --> medium priority except when detection is low and then priority high...

11 “ low priority”,
14 “ medium priority”
18 “ high priority”.

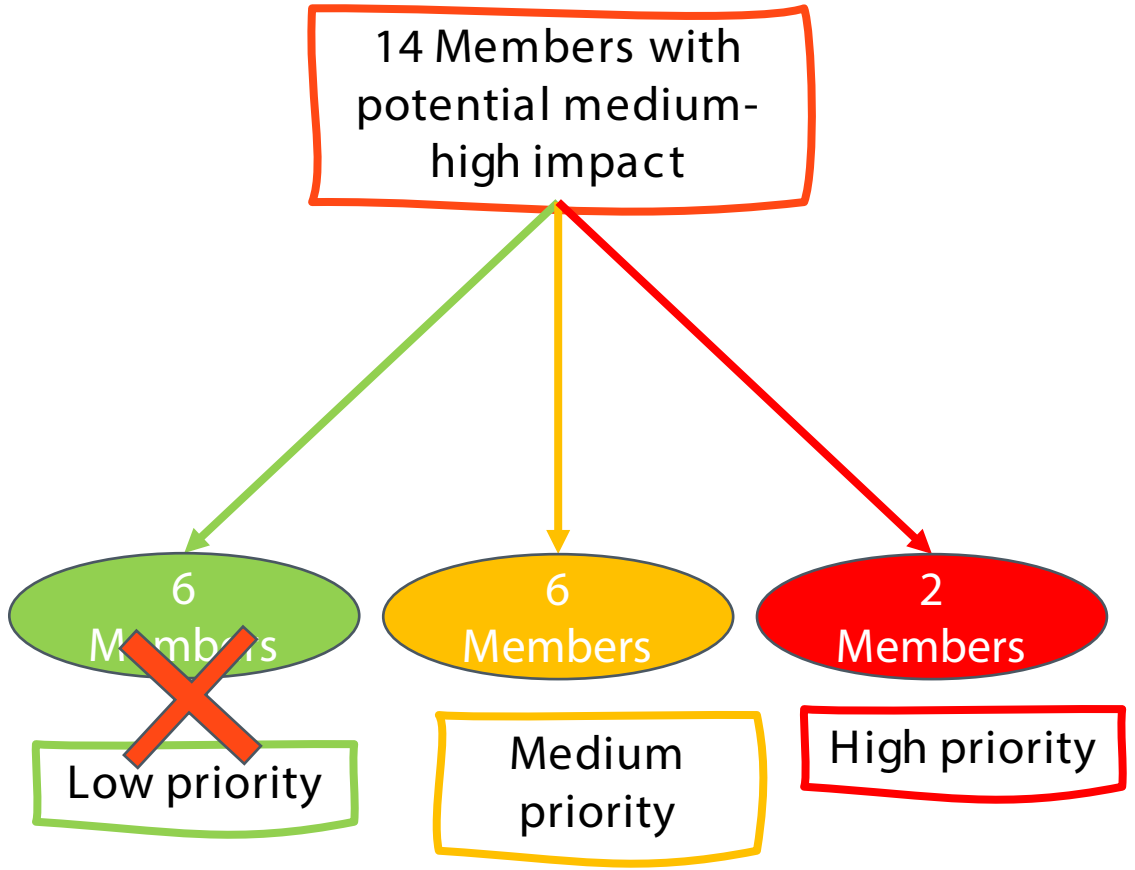
Further refining of the prioritisation

Including impact assessment

Data sources

- ✓ Animal population
- ✓ Country size
- ✓ Animal population density
- ✓ Geographic isolation
- ✓ Number of trading partners

N = 8



Gap analysis – main findings

Reporting highlights

- 80% of IN since 2005 submitted by 10 Members and non-Members
- IN submission time = 15 days (median)
- FUR submission time = 67 days (median)
- Only 28% of the Members and non-Members submitted all the SMR required
- Most of the IN (70.4%) related to three diseases only: ASF, AI, FMD

Dedicated efforts to improve reporting

Detection highlights

- EIOS detected news for only 65% of the Members and non-Members
- 60% of the news detected in five Members
- Globally EIOS detected relevant signals for 29 diseases
- 78% of signal detected for only 6 diseases

Needs to improve ability to detect rumours

Results from gap analysis refined through dedicated workshop with subject matter experts

Section 5

Proposed actions based on identified gaps in the analysis report

Proposed actions

For WOAH (at the regional)

1) To improve detection/reporting
   a. using gap analysis with a country-specific approach
   b. identify factors related to detected gaps and propose actions to reduce the impact
   c. constantly monitor efficacy of the rumour tracking activity.
2) To support countries/territories
   a. tailored to individual (identified) needs
   b. encourage disease reporting and quality data sharing
   c. develop materials to raise awareness on the importance of transparency and limiting gaps
   d. facilitate, and encourage creation of event-base surveillance system at country level.
3) To improve communication
   a. promote regional networking
   b. establish a secure and efficient channel to communicate on rumour tracking findings with countries/territories

For countries/territories

1) To improve detection/reporting
   a. tackle and prioritise main gaps identified from the project to improve disease detection and reporting
   b. support WOAH in sharing local sources to be integrated in the EIOS system
   c. ask guidance from WOAH to facilitate national event base surveillance systems

2) To improve communication
   a) networking with other countries/territories and be a champion in promoting benefits of being transparent in disease reporting
   b) disseminate and share with countries/territories examples of impact and consequence of early detection, sharing and reporting of disease events (both positive and negative effects)
   c) improve the timeliness and efficiency in communication with WOAH for request of clarifications on rumour tracking activity

Proposed actions

For EIOS system

1) To improve detection/reporting
   a. improve detection capacity for priority countries & diseases
   b. increase detection algorithm scope including local languages to cover priority areas
   c. increase local sources that feed information in EIOS from priority areas

Expected impacts

1) Improve WOAH capacity to monitor undetected events at regional level (i.e., improve sensitivity and specificity of the EIOS system).
2) Improve sensitivity of WAHIS system.
3) Improve the trust in WAHIS data.
4) Promote country responsiveness & awareness of the importance of reporting.
5) Reduce delays in disease sharing and reporting.

A pilot project to detect early warnings in Asia-Pacific - could be extended to other regions if successful (a model).

Thank you

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