

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

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# Section 1

**Supporting early threat warning in Asia-Pacific: Australian DAFF supports to the implementation of WOAAH 7<sup>th</sup> Strategic Plan - background & objective**

# Project background



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

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

**Title:** Supporting early threat warning project for WOAHA 7<sup>th</sup> Strategic Plan funded by the Australian Department of Agriculture, Fisheries and Forestry (DAFF).

**Aim:** to promote transparency in disease reporting and sharing.

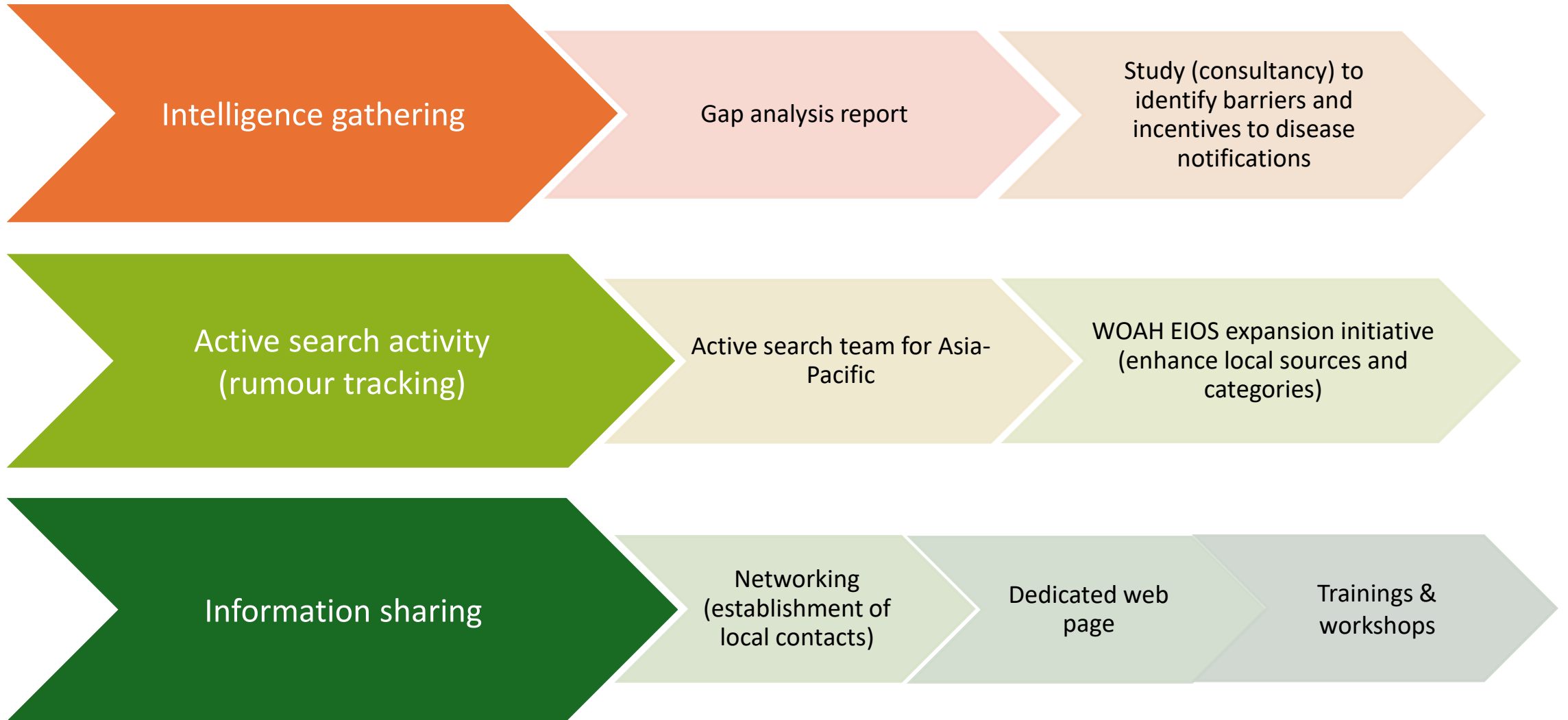
**Objective:** to strengthen WOAHA's early warning systems in Asia and the Pacific region through intelligence-gathering, active search activity (rumour tracking), and information sharing.

**Target participants:** WOAHA Members and territories 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 2

Progress and future outcomes

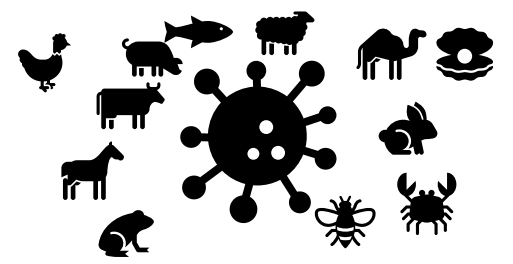
# Progress & future outcomes



# Section 3

Introduction to WOAH active search activity with focus on the Asia-Pacific region

# Mandate of WOAAH for disease reporting



**100 years ago**

**Intergovernmental organisations ensure transparency regarding the global animal disease situation by obligating founding Members to legally report relevant information**

**20 years ago**

Internationally, it is acknowledged that official information is insufficient. To supplement Members, WOAAH was mandated by its Members to conduct epidemic intelligence using various sources.

**Up to now**

A total of 183 Members have progressively joined the organisation and committed to its obligations and principles.



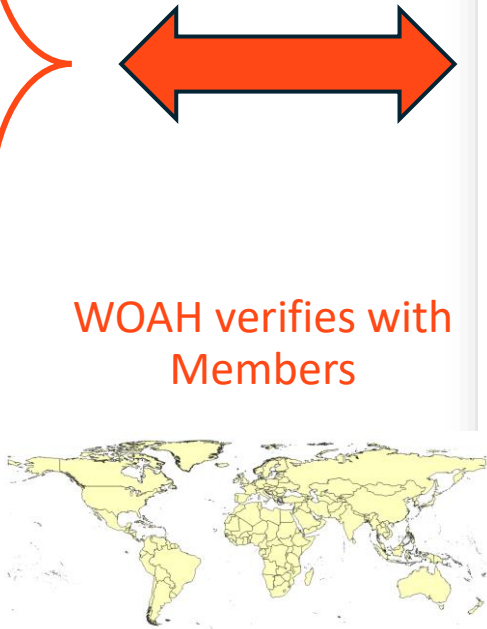
# WOAH epidemic intelligence activity – official and unofficial sources

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

**EIOS** EPIDEMIC INTELLIGENCE FROM OPEN SOURCES

**Reference laboratories (WOAH network)**

**Intelliriver Source**  
**IBIS (Australia)**



## WAHIS: World Animal Health Information System

WAHIS is the global animal health reference database of the World Organisation for Animal Health (WOAH). WAHIS data reflects the validated information since 2005 reported by the Veterinary Services from Member and non-Member Countries and Territories on terrestrial and aquatic Listed Diseases in domestic animals and wildlife, as well as on emerging diseases and zoonoses.

WAHIS includes interactive mapping tools and dashboards to support data consultation, visualization and extraction of officially validated animal health data.



### Latest animal disease events



Country/Territory	Disease - genotype/serotype/subtype	Date
Ukraine	African swine fever virus (Inf. with)	2023/11/06
Ukraine	African swine fever virus (Inf. with)	2023/11/06
Ukraine	African swine fever virus (Inf. with)	2023/11/03
Russia	African swine fever virus (Inf. with)	2023/11/03
Mexico	High pathogenicity avian influenza viruses (poultry) (Inf. with) H5N1	2023/11/02
Colombia	Influenza A viruses of high pathogenicity (Inf. with) (non-poultry including wild birds) (2017-) H5 (N untyped)	2023/11/01
Russia	Influenza A viruses of high pathogenicity (Inf. with) (non-poultry including wild birds) (2017-) H5N1	2023/10/31
South Georgia and the South Sandwich Islands	Influenza A viruses of high pathogenicity (Inf. with) (non-poultry including wild birds) (2017-) H5N1	2023/10/30

# Improving disease notification to WOAAH: Asia-Pacific in supporting early threat warning (active search activity)

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### Latest animal disease events

Country/Territory	Disease - genotype/serotype/subtype	Date
Ukraine	African swine fever virus (Inf. with)	2024/06/12
Hong Kong	Lumpy skin disease virus (Inf. with)	2024/06/11
Moldova	African swine fever virus (Inf. with)	2024/06/11
South Africa	Rabies virus (Inf. with) RABV	2024/06/11



## WAHIS – at global

- **WAHIS**, a global database for official animal health information – maintains by WOAAH
- Since 2005, WAHIS tracks diseases for domestic animals, wildlife & zoonoses diseases.
- WAHIS offers interactive tools for users to explore, visualise & download validated animal disease data.

## Active search activity – at WOAAH regional level

- Early 2024, Asia-Pacific team tracks rumours related to animal diseases and creates weekly summaries of this information, for internal dissemination within WOAAH.
- Epidemic Intelligence from Open Sources (EIOS) - WHO's EIOS initiative uses open-source data to speed up detection and response to public health emergencies.

# The active search process at Asia-Pacific

## Data collection

The active search team for Asia-Pacific gathers information from thousands of online resources (i.e., news articles, social media, official reports) through EIOS. This activity is conducted twice weekly on Tuesday and Thursday through its digests.

## Analysis

The team analyses this data to identify potential disease event of interest and assess their risks.

## Communication

The team disseminate this information internally to raise awareness and enable informed responses if needed. Relevant news is then shared with the active search team in WAHIAD for clarification with Members/territories. If needed, based on the detected news signals, Members will submit official notifications to WAHIS.

# 4 ACTIVE SEARCH PROCEDURE APPLIED BY WOAAH



# EIOS – key figures



Daily screening of the web for all listed and emerging diseases

15,000 sources

500 disease categories

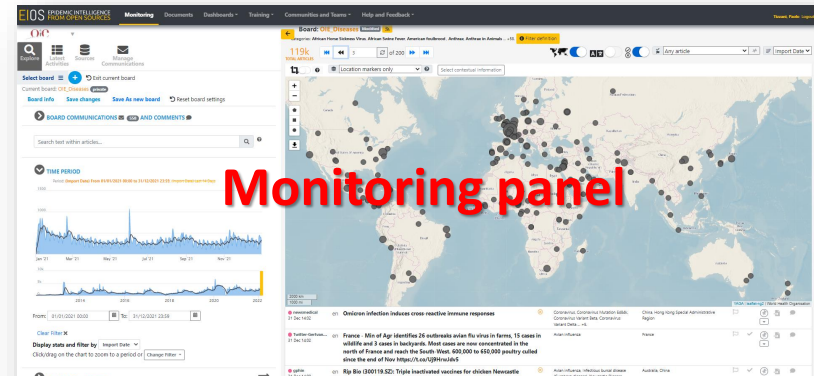
15 languages

100,000 – 150,000 news/year

Communication between WOAHA and its Members

The screenshot displays the EIOS monitoring interface. At the top, it shows the 'Board: OIE\_Diseases' with 119k total articles. A world map is populated with black circular markers of varying sizes, indicating disease locations across various continents. Below the map, a 'TIME PERIOD' section features a line graph showing activity from 2014 to 2022, with a zoomed-in view for the period from 01/01/2021 00:00 to 31/12/2021 23:59. A list of news articles is visible, including headlines such as 'Omicron infection induces cross-reactive immune responses', 'France - Min of Agr identifies 26 outbreaks avian flu virus in farms, 15 cases in wildlife and 3 cases in backyards...', and 'Japan - Authorities in Ehime prefecture will kill about 130,000 chickens due to bird flu outbreak'. The interface includes navigation menus, search bars, and filters.

# WOAH epidemic intelligence activity in Asia-Pacific using EIOS



EIOS fosters a global public health intelligence collaboration, uniting stakeholders and leveraging open-source data for early detection and response to public health threats under a One Health, all-hazards approach. WHO leads this multi-stakeholder initiative under its Health Emergencies Programme. As a global collaboration, the EIOS initiative is governed by a Coordination Group with representatives from various organisations; **WOAH** is one of the organisations.

**CATEGORIES**

All OIE Categories (473 of 473)

Any of these selected categories

- All OIE Categories (473 of 473 categories selected)
- Animal Related (3 of 3 categories selected) **9.8k** ✓
- Biological (144 of 144 categories selected) **26.4M** ✓
- Chemical (76 of 76 categories selected) **132k** ✓
- Disasters (11 of 11 categories selected) **140k** ✓
- Diseases From J-Q (1 of 1 categories selected) **3.07k** ✓
- Health Systems (6 of 6 categories selected) **142k** ✓
- Immunity (4 of 4 categories selected) **10.9k** ✓
- Measures (6 of 6 categories selected) **0** ✓
- Nuclear (4 of 4 categories selected) **776** ✓
- Outcomes (7 of 7 categories selected) **987k** ✓
- Populations (12 of 12 categories selected) **296k** ✓
- Product Safety (1 of 1 categories selected) **0** ✓
- Symptoms (16 of 16 categories selected) **190k** ✓
- zAll Hazards Threats (optional) (182 of 182 categories selected) **909k** ✓

Combine more selected categories in **(AND)**

- Biological (144 of 144 categories selected) **51.7M** ✓
- Mass Gathering (6 of 6 categories selected) **201k** ✓
- Infection with Batrachochytrium salamandrivorans **82** ✓
- Abrin **452** ✓
- African swine fever **56.3k** ✓
- Alcelaphine herpesvirus 1 and ovine herpesvirus 2 **1** ✓
- American foulbrood **134** ✓
- Anthrax **23.2k** ✓
- Anthrax in animals **4.75k** ✓
- Argentine Hemorrhagic Fever **775** ✓
- Aujeszky's disease **1.25k** ✓
- Avian influenza **272k** ✓
- Babesiosis **3.2k** ✓
- Baylisascaris **87** ✓
- Bluetongue **3.16k** ✓
- Borrelia **238** ✓
- Bovine Tuberculosis **4.93k** ✓
- Brucellosis **22.5k** ✓
- Camelpox **123** ✓
- Cerebral venous sinus thrombosis **13.6k** ✓
- Cholera: **121k** ✓
- Chronic Wasting Disease **318** ✓
- Classical swine fever **70.4k** ✓
- Clostridium **29.9k** ✓

EIOS Daily Digest - 10/06/2022

Paolo Tizzani  
To: Paolo Tizzani

**EIOS** EPIDEMIC INTELLIGENCE FROM OPEN SOURCES World Organisation for Animal Health

**EIOS Daily Digest**  
From: Tizzani, Paolo (p.tizzani@woah.org)  
To: WHO staff and other international One Health teams  
Date: 09/06/2022 - 10/06/2022

*This news corresponds to signals collected from the Media in different countries, and do not represent official notifications. OIE official notifications are available in OIE-WAHIS: <https://wahis.woah.org/#/events?viewAll=true>*

Highlights of the day:

Country	Disease
Brazil	Glanders
Congo (Dem. Rep. of the)	Plague
Croatia	Avian influenza
Hong Kong (SAR - PRC)	African swine fever
Hungary	Avian influenza
Indonesia	Foot and mouth disease
Italy	African swine fever
Kazakhstan	Anthrax
Paraguay	Leishmaniosis
Tunisia	Foot and mouth disease
United states of America	Avian influenza in foxes
Global	Increasing spread animal diseases
Caribbean	Coral disease in the Caribbean

*This Update is not for circulation outside of the distribution list. Thank You.*

# Section 4

Key takeaways from the presentation on active search activities in Asia-Pacific include the expected impacts of these efforts

## Expected impacts of these efforts

Improve the **trust** in  
WAHIS data

Reduce **delays** in  
disease sharing and  
reporting at regional  
level

Improve WOAHA capacity  
to monitor undetected  
events at **regional** level  
(i.e., improve EIOS  
sensitivity & specificity)

Improve **sensitivity** of  
WAHIS system

Promote  
country/territory  
responsiveness &  
awareness of the  
**importance of reporting**

## To improve detection & reporting

- Support WOAAH in **incorporating local data** sources into EIOS
- Seek guidance from the WOAAH to support the development of national **event-based surveillance** systems

## To improve communication

- **Network** with other countries/territories. **Become a leader** in advocating for the benefits of transparent disease reporting
- **Share examples** of both positive & negative consequences resulting from early detection, sharing & reporting of disease events with other countries/territories
- **Enhance the speed & effectiveness** of communication with WOAAH regarding any clarification requests arising from rumour tracking activities

**How can Members contribute to the success of this initiative?**



# Thank you

This pilot project aims to detect early warnings in Asia-Pacific. If successful, it could serve as a model for implementation in other regions.

