



Biological Threat Reduction and FIRABioT

FIRABioT Inception Workshop

14-16 March 2023, Nairobi, Kenya

Dr Daniel Donachie, Programme Manager, WOAH

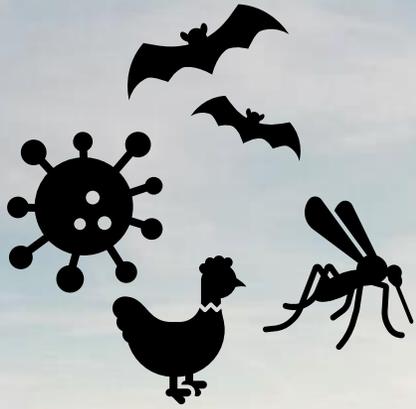
Ms Madison Wimmers, Project Officer, WOAH



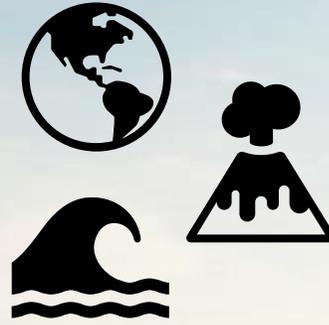


An ever-changing hazard
landscape for Veterinary
Services

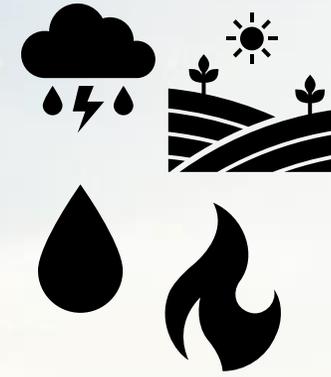




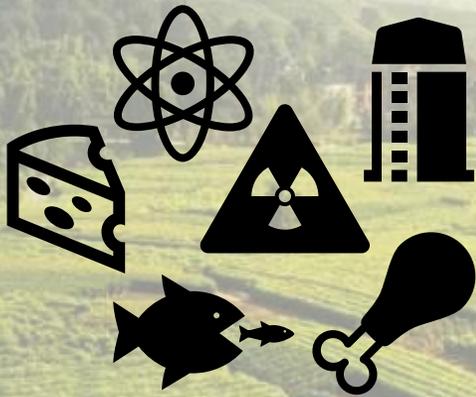
Infectious diseases, including emerging zoonoses and vector-borne pathogens



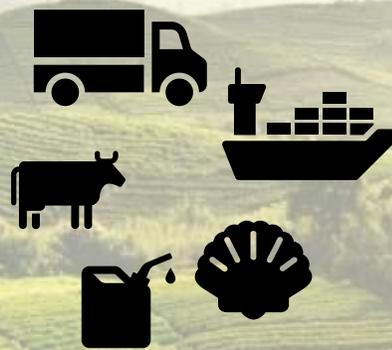
Geological events: earthquakes, volcanoes and tsunami



Adverse weather and climatic events: storms, floods, fire and drought



Technological disasters and contamination of food and feed chains



Transport and maritime accidents, including oil spills



Agro-crime, agro-terrorism, cybersecurity, conflict, refugees



BIOSECURITY THREATS

MAINTAINING A STRONG BIOSECURITY SYSTEM IS INCREASINGLY CHALLENGING



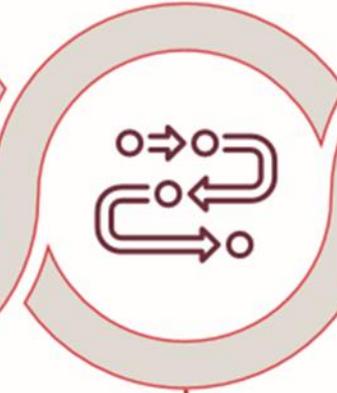
Challenging global trends –
Goods and logistic chains



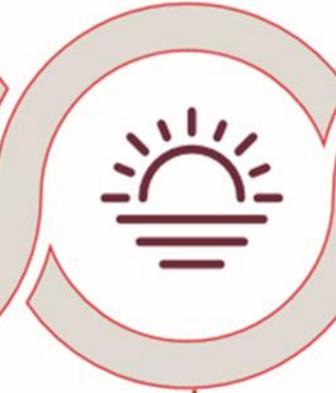
Growing trade and traveller volumes



Increasing imports from a wider range of countries



More complex supply chains



Climate variability changing pest and disease distributions



Illegal activities circumventing biosecurity controls

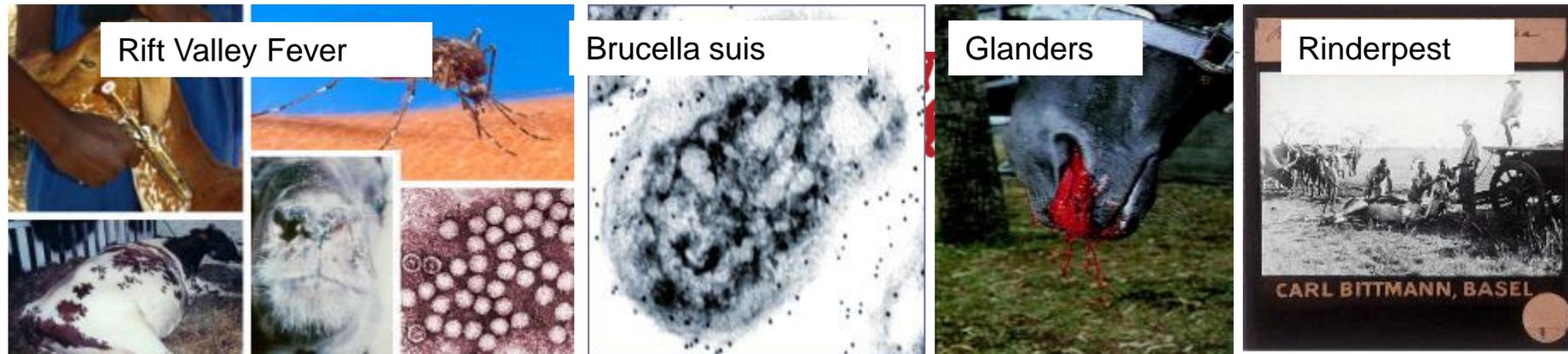
At least **75%** of emerging infectious diseases of humans (including Ebola, HIV, and influenza) have an animal origin



80% of agents with potential bioterrorist use are zoonotic pathogens



**Fight pathogens at the animal source
to protect human health**





The World Organisation for Animal Health (WOAH)

Protecting animals, preserving our future



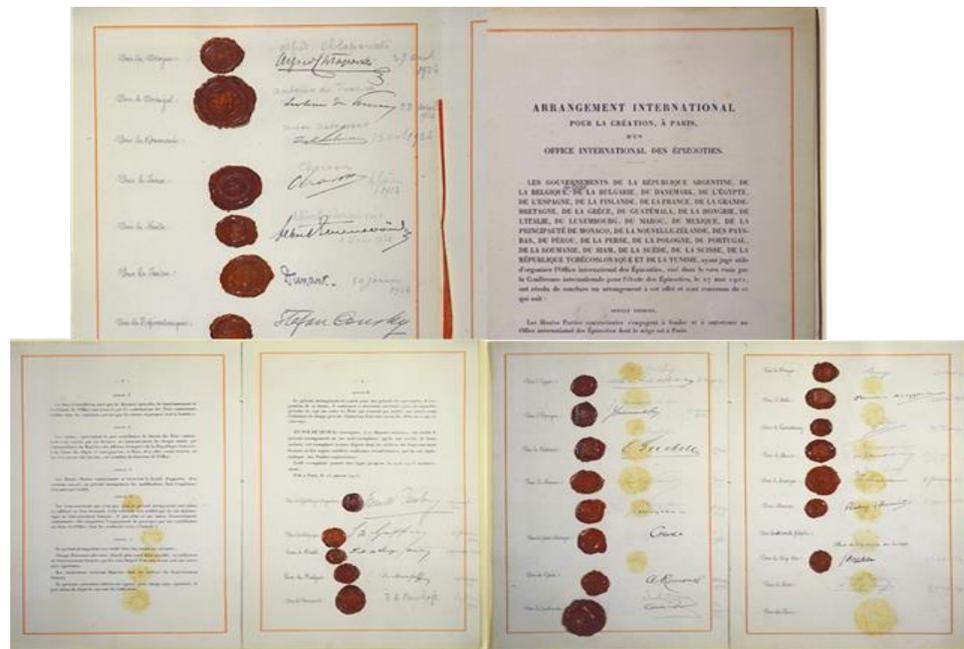
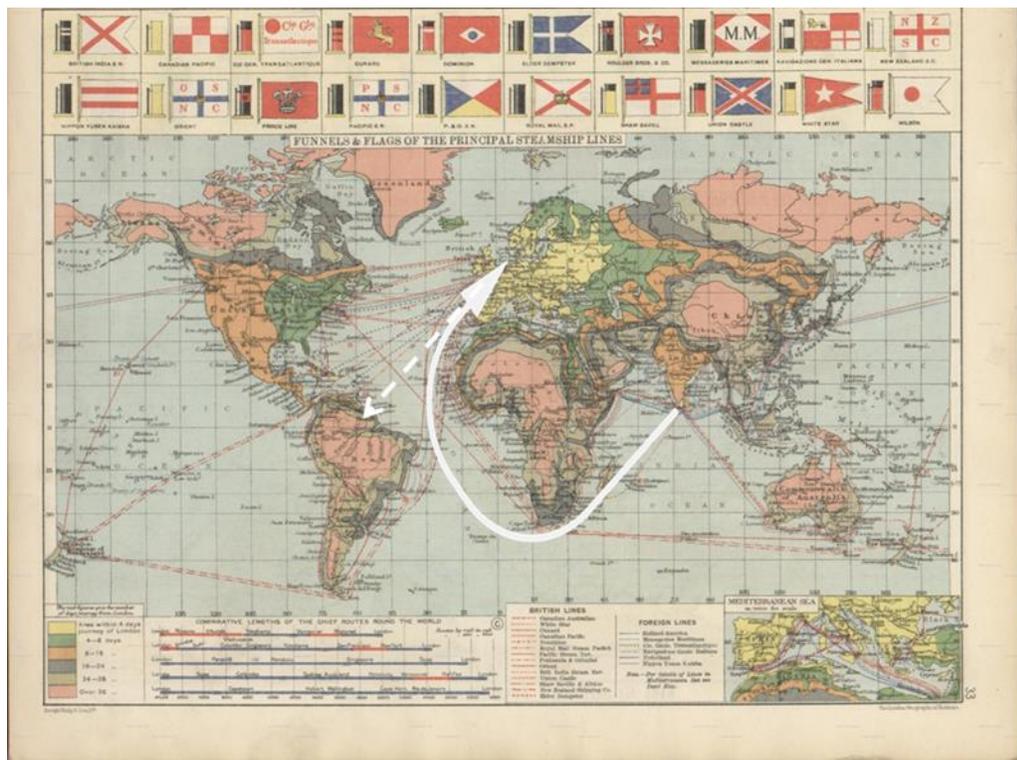
Angrenus tartarox in hungaria temporibus regis Bele quarti



1300s Rinderpest spreads across Asia



Rinderpest and WOAAH



Great rinderpest pandemic 1890s





- Transparency
- Scientific information
- International solidarity

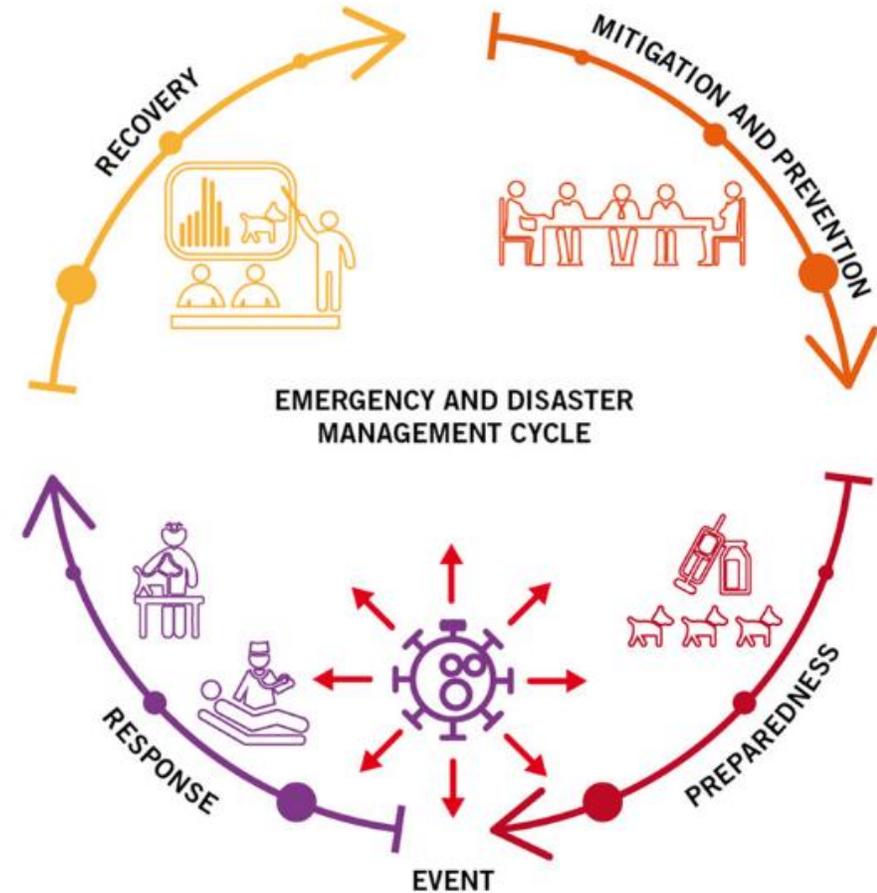
- Sanitary safety
- Promotion of veterinary services
- Food safety and animal welfare

ANIMAL HEALTH AND WELFARE EMERGENCIES

- What is an emergency?

'A serious, unexpected, and often dangerous situation requiring immediate action'

- Emergency management is the organisation and management of roles and responsibilities, resources and capabilities and actions required across all phases of the emergency management cycle

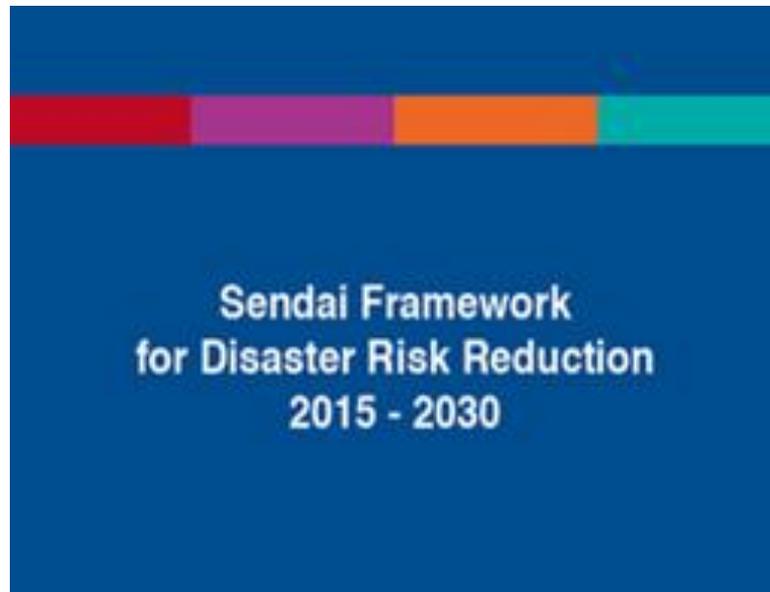




DISASTER

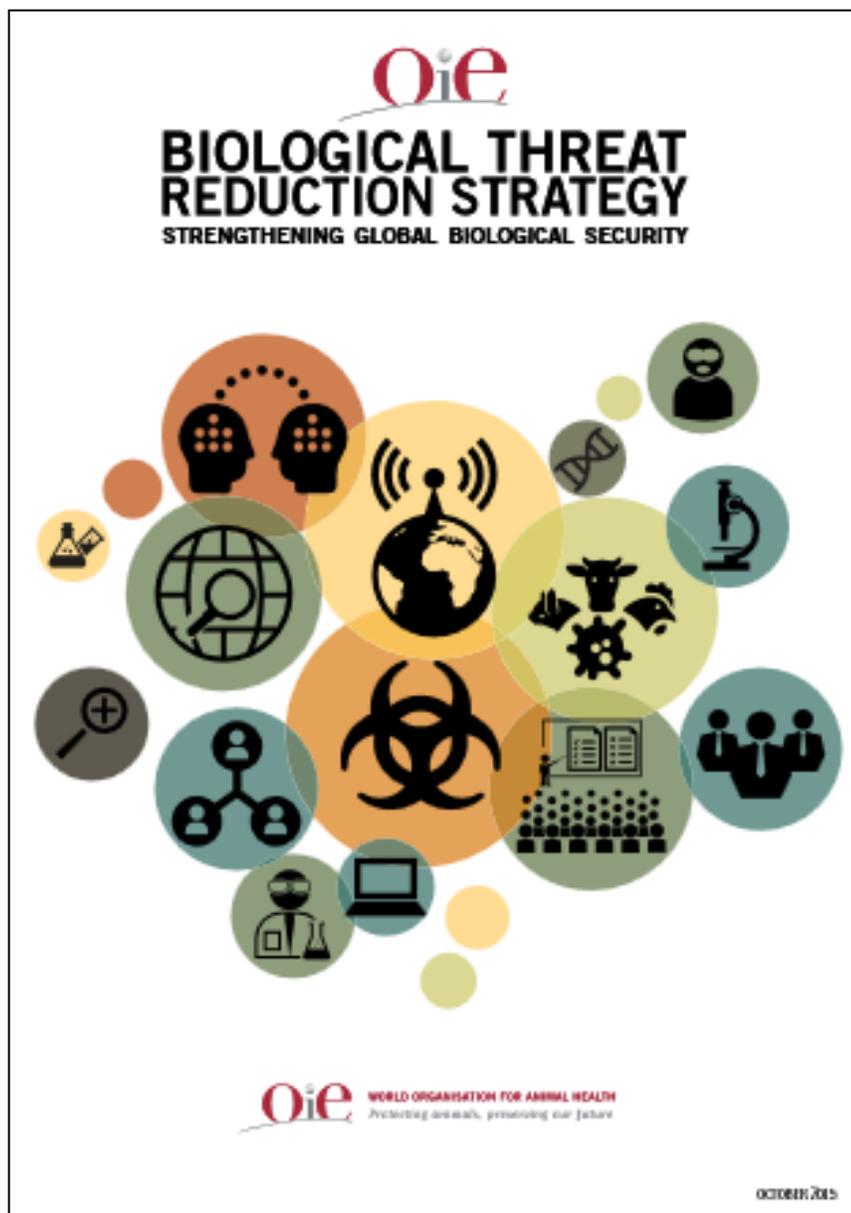
A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which **exceeds the ability** of the **affected community or society** to cope using its own resources'. (United Nations Office for Disaster Risk Reduction – UNISDR, 2015

- Natural disasters, technological/man-made, infectious diseases....
- Need for multi-sectoral and interdisciplinary approach





Biological threat reduction



biological threat or 'bio-threat' refers to the accidental or deliberate release of a pathogen or toxin into a susceptible population



Where do biological threats and emergencies come from?

Naturally occurring

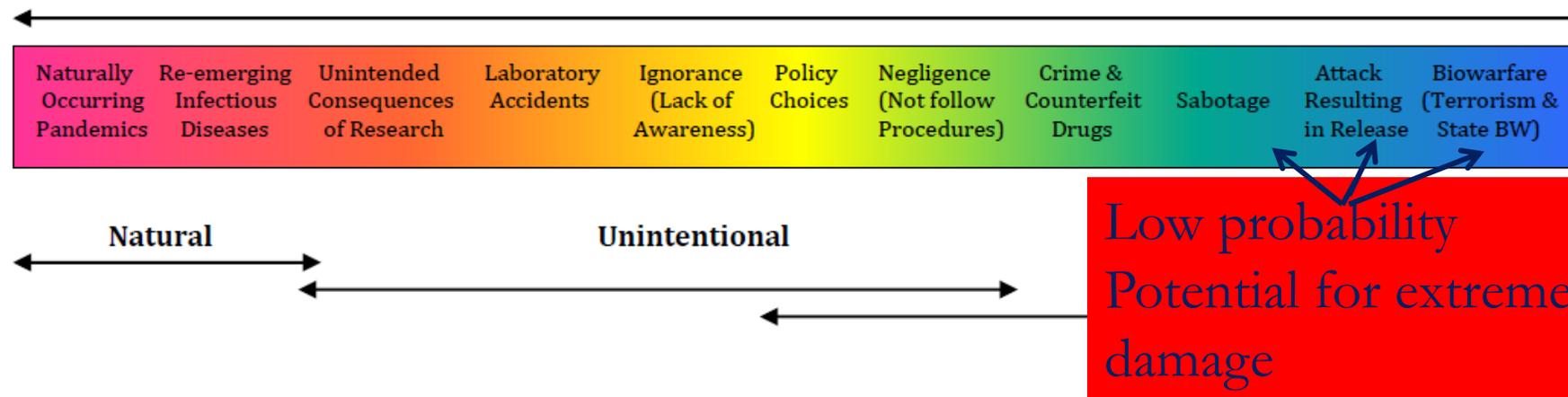
- Imported cases
- Regional outbreak
- Global event
- Pandemic
- Re-emerging
- Newly emerging

Accidents

- Laboratory accidents
- Nosocomial infections

Deliberately caused

- Criminal intention
- Bio- and Agro-terrorism
- Biological warfare





When foot-and-mouth disease stopped the UK in its tracks

By Claire Bates
BBC News Magazine

🕒 17 February 2016

[f](#) [🗨️](#) [🐦](#) [✉️](#) [Share](#)



Fifteen years ago foot-and-mouth disease led to the culling of millions of animals and the UK losing billions of pounds. Could it happen again?

In today's Magazine

**WHAT IS A
TRANSBOUNDARY
ANIMAL DISEASE?**

■ “A HIGHLY CONTAGIOUS DISEASE WHICH CAN SPREAD RAPIDLY ACROSS BORDERS”



Peste de Petits Ruminants (PPR)



Anthrax



African Horse Sickness (AHS)



HOW DO THEY SPREAD?

International movements (legal and illegal)

- Live domestic animals or wildlife
- Animal products – meat, feathers, milk, hides, semen, ova, embryos, offal
- Animal feed

Fomites (people (clothes), vehicles, machinery)

Wildlife e.g. wild spreads spreading avian influenza (“bird flui”)

Air and water (wind, rivers)

Vectors

IMPORTANCE OF TRANBOUNDARY ANIMAL DISEASES

- Impacts on health and welfare of animals, humans, and wildlife
- Impacts on biodiversity
- Disruption to trade and agriculture industry
- Impact on food production and safety
- Indirect losses, e.g., tourism
- Political and national security implications



The New York Times

Blair Postpones Election Because of Foot-and-Mouth Epidemic

[Give article](#) [Share](#) [Bookmark](#)

By Tom Buerkle, International Herald Tribune
April 3, 2001

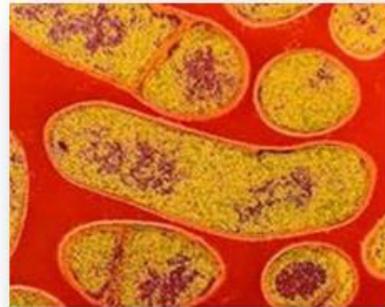
LONDON— In one of the biggest political gambles of his leadership, Prime Minister Tony Blair on Monday formally announced a one-month postponement of local elections to concentrate on combating foot-and-mouth disease, effectively signaling that his Labour government would seek re-election on



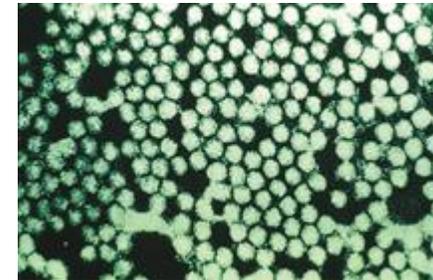
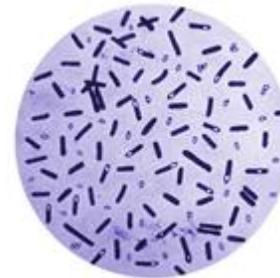


Biological AGENTS OF CONCERN

- High rate of illness among those exposed
- High rate of death among the affected
- Short time between onset of illness and death
- No known treatment
- Animal-to-animal/human transmission
- Easy to produce and disseminate
- Difficult to diagnose, control and eradicate



Clostridium botulinum





Australia Group control lists:
identification of exports which need to be controlled so as not to contribute to the spread of biological weapons

- Biological agents including toxins
- Dual use equipment, technology, software

57 viruses
22 Bacteria
18 Toxins
2 Fungi



WOAH list:
single list of notifiable diseases which
• have all the same degree of importance in international trade and which are
• classified as specific hazards

116 diseases, infections, infestations

RELEVANCE OF / RELEVANT PATHOGENS

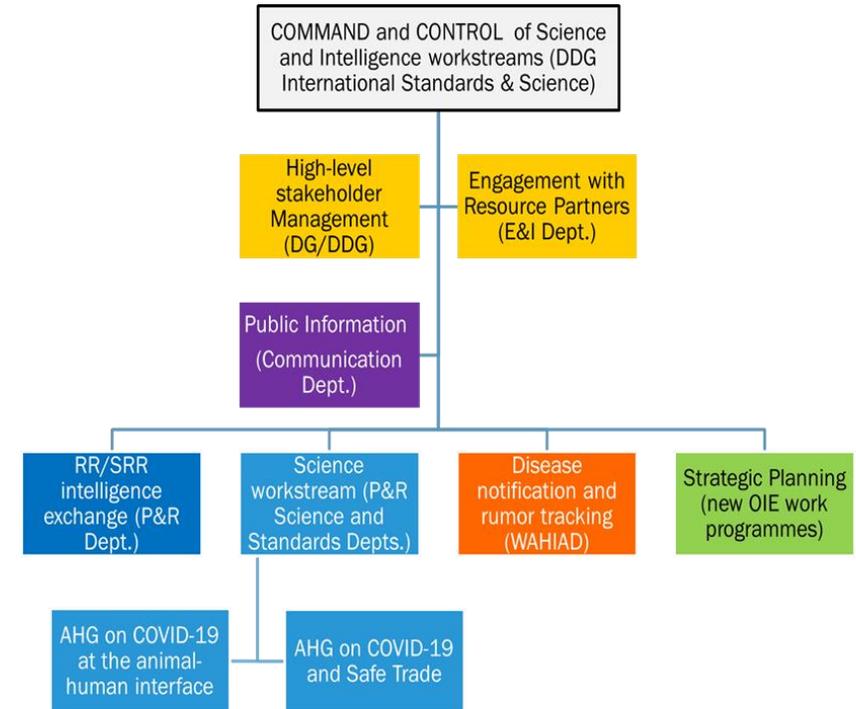
African horse sickness (AHS virus)	+	
African swine fever (ASF virus)	+	
Anthrax (Bacillus anthracis)	+	
Aujeszky's disease virus	+	
Avian influenza (LPAI)	+	
Avian influenza virus (HPAI)	+	
Bluetongue (Bluetongue virus)	+	
Brucellosis (B. abortus)	+	
Brucellosis (B. melitensis)	+	
Brucellosis (B. suis)	+	
Classical swine fever (CSF virus)	+	
Contagious bovine pleuropneumonia (Mycoplasma mycoides mycoides)	+	
Contagious caprine pleuropneumonia (Mycoplasma capricolum/M. F38/M. mycoides capri)	+	
Crimean Congo haemorrhagic fever	+	
Eastern Equine Encephalitis	+	
		Foot-and-mouth disease (FMD virus)
		Glanders (Burkholderia mallei)
		Goat pox and Sheep pox (viruses)
		Lumpy skin disease (virus)
		Japanese encephalitis virus
		Newcastle disease (virus, velogenic strain)
		Nipah virus
		Peste des Petis Ruminants (virus)
		Psittacosis/Avian chlamydiosis (Chlamidophila psittaci)
		Q fever (Coxiella burnetii)
		Rabies
		Rift valley Fever (RVF virus)
		Rinderpest
		Salmonella species
		Tularemia (Francisella tularensis)
		Venezuelan Equine Encephalitis
		Western Equine Encephalitis



- WOAHA Standards oblige Members to notify occurrence or re-occurrence of a WOAHA listed or emerging disease. Official report shared to all Members through WAHIS to inform early warning (Members encouraged to report suspicions of deliberate outbreak to the WOAHA but not mandatory)
- Epidemic Intelligence - Active search and rumour tracking including through GLEWS+ with FAO (+WHO if zoonotic) (criminal activity may be on darknet)
- Risk assessments with FAO (+ WHO if zoonotic) (only been done for natural events)
- Information exchange with INTERPOL under provisions of WOAHA-INTERPOL MoU

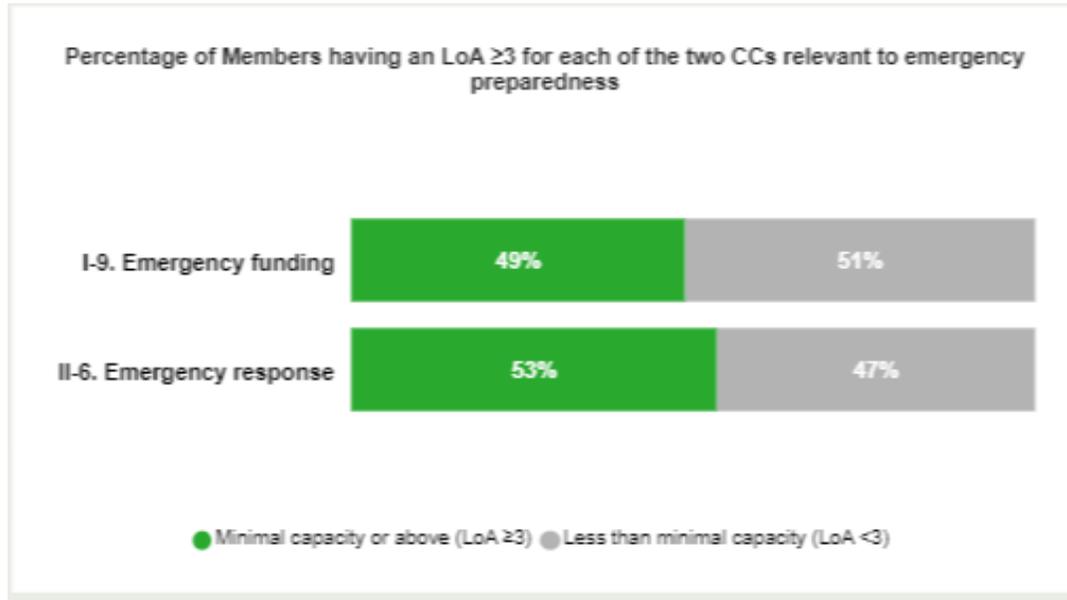


- Activate internal WOAH Incident Management System
- Mobilisation of expert groups through network of Reference Centres
- Respond to requests of assistance from Members
- Participate in FAO emergency response missions
- Cooperate with FAO, INTERPOL, WHO and other partners and mechanisms such as UNODA, UN Secretary General Mechanism, BWC ISU Interagency Standing Committee





WOAH Observatory Annual Monitoring Report



- Data since 2016 (n=40)
- Level of Advancement greater than or equal to 3 considered “compliant”
- Compliance rates:
 - CC I-9 49%
 - CC II-6 57%
 - Both 38%

BUILDING RESILIENCE AGAINST AGRO-TERRORISM AND AGRO-CRIME

- Build and strengthen **multi-sectoral capacity** to respond to **agro-terrorism** and **agro-crime** whilst aiming to build resilience against **all animal health emergencies**
- Strengthen **regional and international cooperation**
- Foster engagement of **veterinary and law enforcement** sectors
- Priority regions are North Africa, Middle East and South East Asia



Food and Agriculture
Organization of the
United Nations



In partnership with
Canada

Global Conference on Emergency Management 3-5 April 2023, Paris

- Highlight emergency preparedness needs to take an all-hazards approach involving multiple sectors and show how this can be operationalised
- Focus on animal health-security interface
- Strengthened international emergency management network



- WOAHA develops a sustainable work programme emergency management utilising an ALL HAZARDS approach to emergencies
- WOAHA Members should:
 - Collaborate with other agencies and ministries in emergency management
 - Base emergency management planning on risk analysis to inform national and regional priorities
 - Collaborate with other Members in emergency management planning

89th General Session World Assembly 
World organisation for animal health Paris, 23-26 May 2022

<https://doi.org/10.20506/bull.2023.1.3394>

SG89/8

Original: English

**WORLD ORGANISATION FOR ANIMAL HEALTH, VETERINARY SERVICES AND AQUATIC
ANIMAL HEALTH SERVICES ENGAGEMENT IN GLOBAL, REGIONAL AND NATIONAL
EMERGENCY MANAGEMENT SYSTEMS**

Matthew Stone¹, Daniel Donachie², Chadia Wannous², Keith Hamilton²

¹ SPADE Solutions Ltd, Wellington, New Zealand

² World Organisation for Animal Health, Paris, France

Executive Summary : Avian influenza, Ebola, African swine fever and COVID-19 epizootics, epidemics and pandemics in recent years have highlighted infectious diseases emergencies affecting public health and animal health. Emergencies from adverse weather events are expected to increase in frequency and severity driven by climate change.



Fortifying Institutional Resilience against Biological Threats – FIRABioT





Inception of *Fortifying institutional resilience against biological threats* (FIRABioT) Project

- WOAHA-FAO-INTERPOL Agro-Crime Project (including Global Conference)
- Previous GAC funded biothreat work
- COVID-19 after-action
- Technical Item and Resolution GS 2022
- Global Partnership and African Signature Initiative



FIRABioT



01

Improve WOAHA's ability to anticipate, respond and recover from emergencies and ensure business continuity

02

Strengthen WOAHA Members' abilities and capacities to respond to emergencies, particularly in Africa

03

Demonstrate value of WOAHA as a partner for security organisations



Project breakdown

Establish a WOAHA Incident Management System

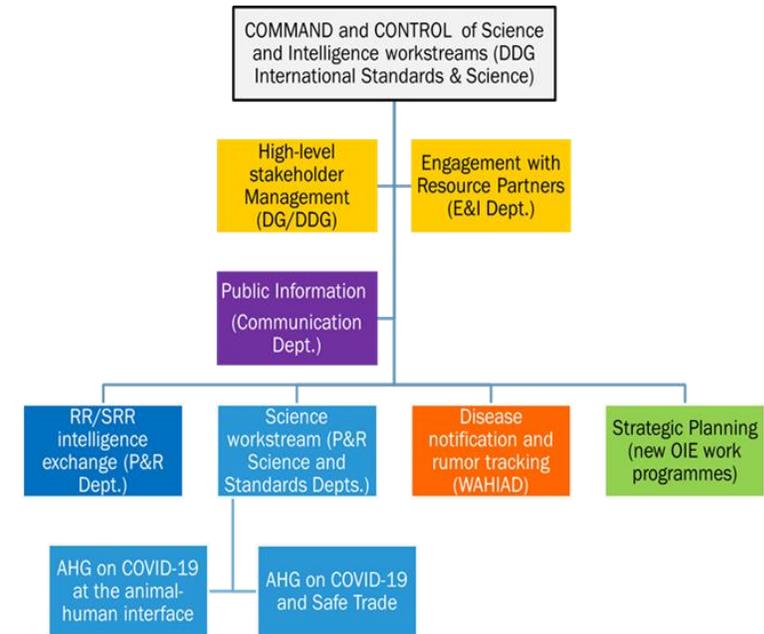
Improve capacity of WOAHA Members to respond to emergencies resulting from deliberate releases (focused on Africa)

Scientific and evidence-based guidance and standards for emergency management developed

Dissemination of good practices for emergency management (including for deliberate releases)

Establish a Sustainable WOAH Incident Management System (IMS)

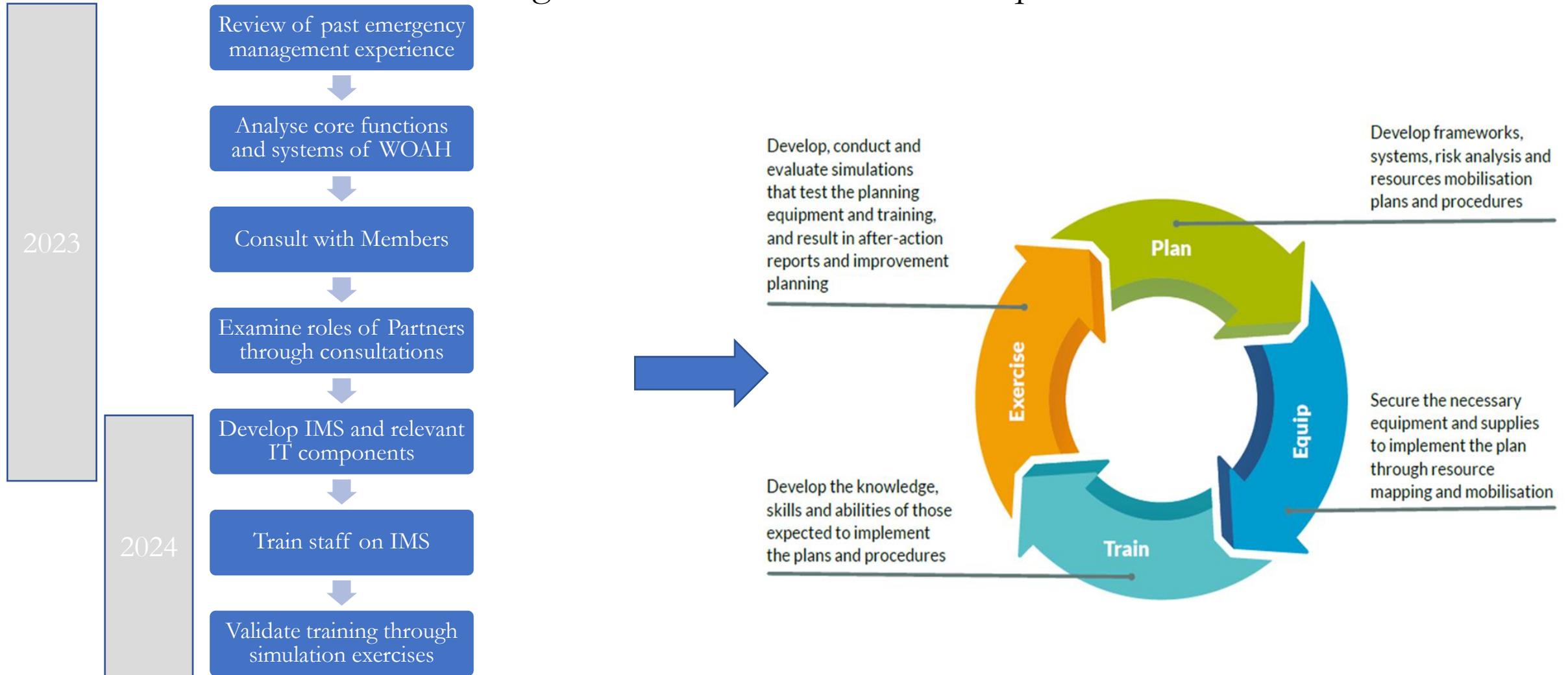
- Recommendation from Technical Item Resolution (GS 2022)
- IMS must take all-hazards approach, build on past experiences and be able to support WOAH, its Members and Partners during international emergencies
- Business continuity and crisis management component





Align and respect WHO's mandate, based on Member expectations and roles of Partners.

Management and IT consultants required





Improved emergency management capabilities of WOA Members (focused on Africa)





Expression of interest sent to Delegates of 25 countries, responses received from 10:

1. Algeria
2. Republic of the Congo
3. Côte d'Ivoire
4. Kenya
5. Madagascar
6. Malawi
7. Morocco
8. Namibia
9. Tanzania
10. Zimbabwe

Opportunity

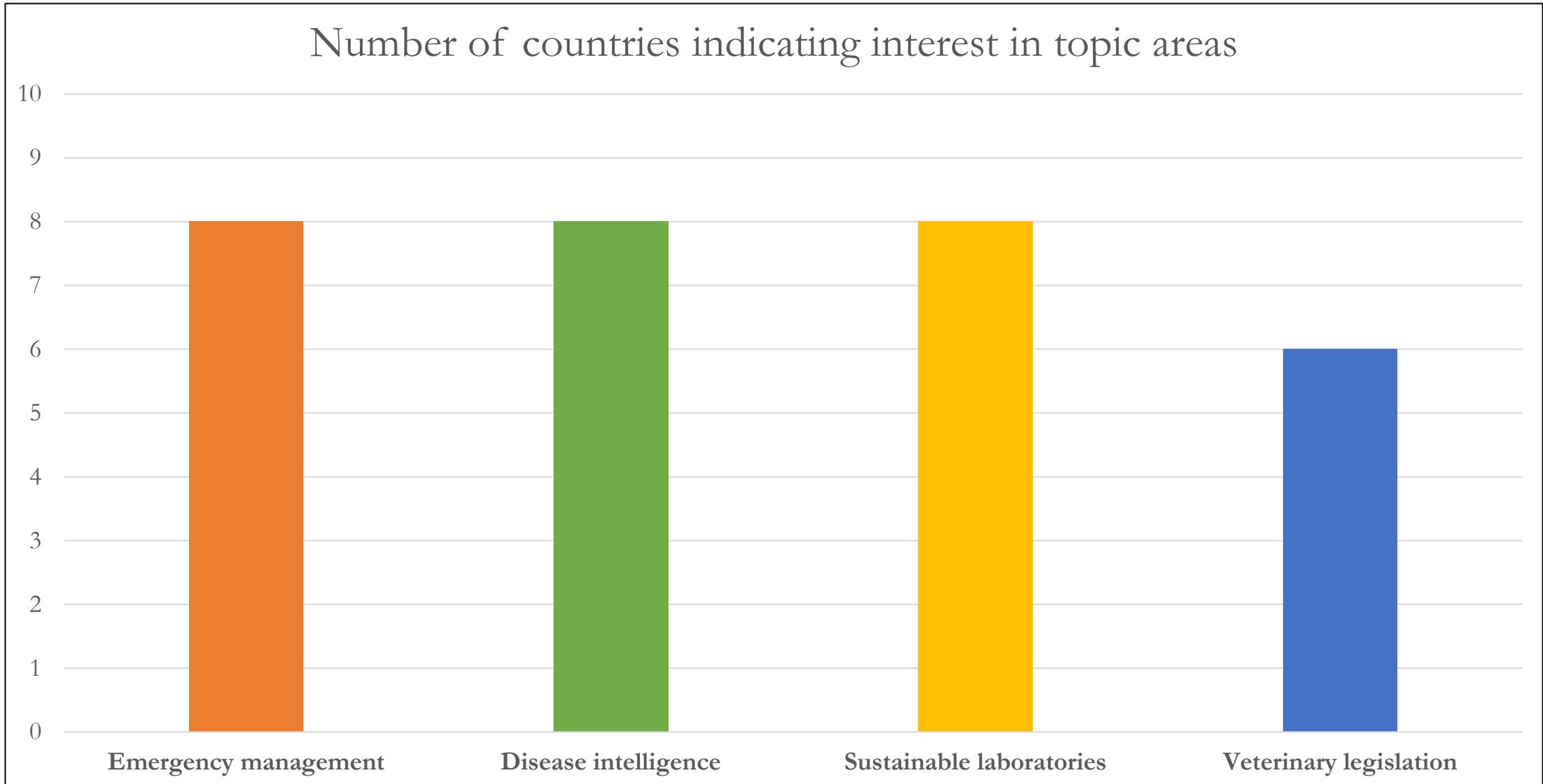
Fortifying Institutional
Resilience Against Biological
Threats (FIRABioT) Project

Request for interest (RFI) to build emergency management capacity and strengthen biosafety and biosecurity

Background to the request



Project Scope





Project Scope

Simulation exercises

Capacity building for laboratories, such as training on biosecurity methods

Capacity building and resource building for disease surveillance

Update legislation

Enhancing Veterinary Services' ability to plan for and respond to emergencies



Scientific and evidence-based guidance and standards for emergency management

Consultancies and ad hoc Groups

- Based on needs from Members (Global conference recommendations and workshop consultations)
- Develop guidelines
 - E.g. multi-agency cooperation practical guidelines.
- Expert Group meetings
 - Recommendations for IMS
 - Standards for Terrestrial Animal (recommendation from Technical Item Resolution)



GUIDELINES FOR SIMULATION EXERCISES

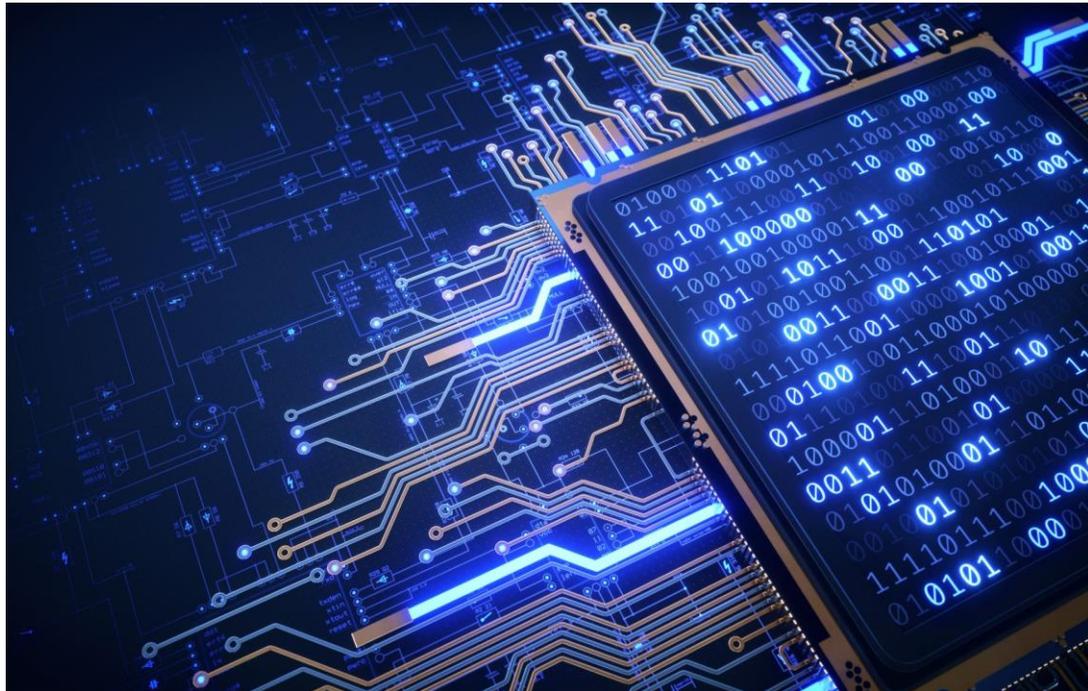
A consistent set of good practices for preparing, delivering, and learning from animal health and welfare and veterinary public health simulation exercises for Veterinary Services



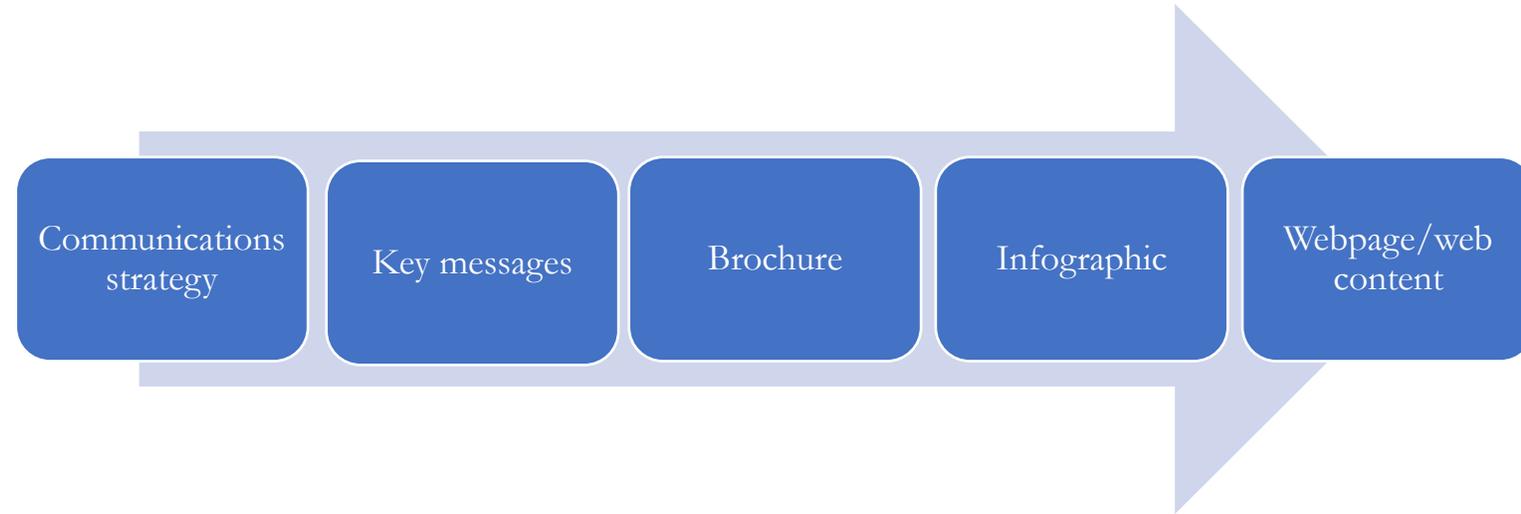
Dissemination of good practices for emergency management (including for deliberate releases)

Global Conferences

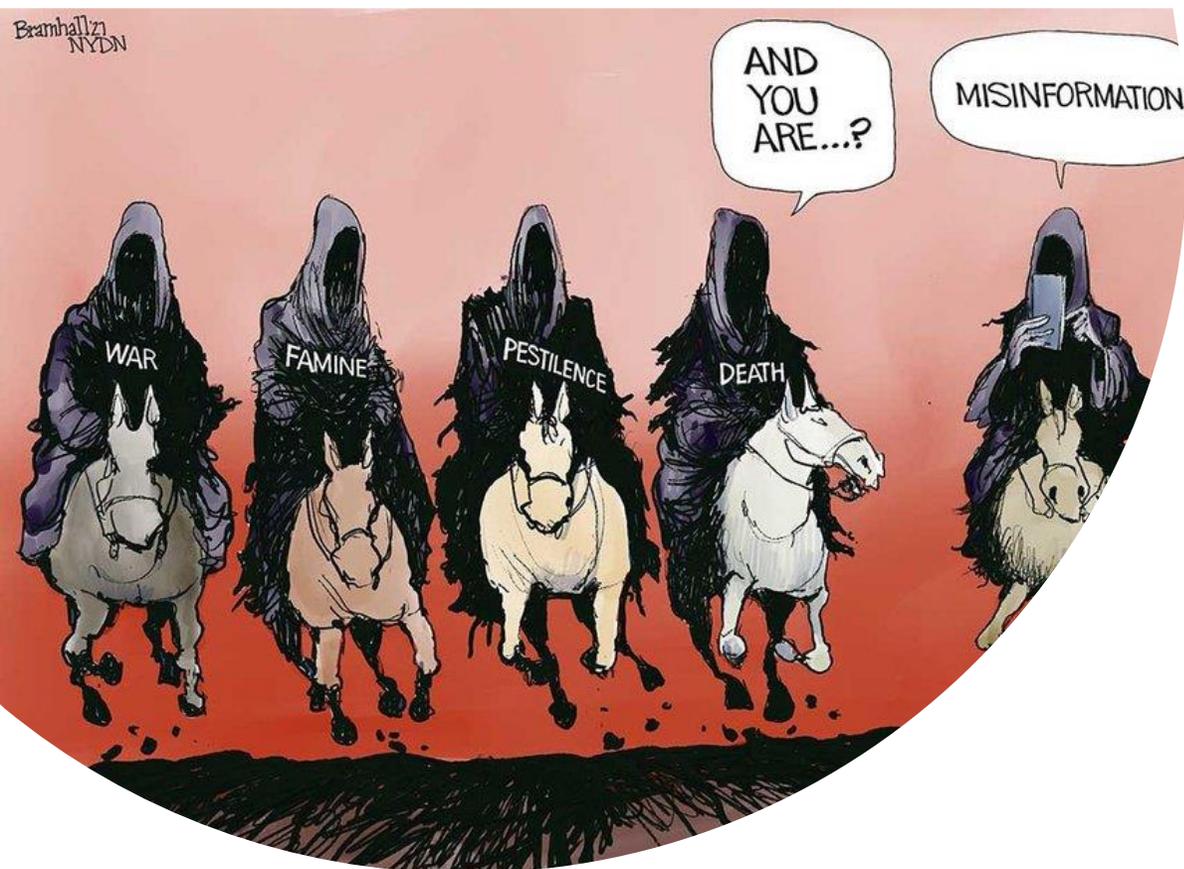
- Global Conference on Information systems (recommendation from 2017 biothreat reduction conference) (October 2024)
- 3rd Global Conference on Biological threat reduction (March 2025) =



Communications and Publications



- Podcasts on emergency and disaster management
- Hire a graphic designer specifically for FIRABiot
- Learn from other projects e.g. EBO-SURSY
- Regular updates in WOAHI News
- Journal articles
- Online repository



Disinformation and Misinformation Workstream

- Academic study understand impact of dis/misinformation in animal health. No study undertaken thus far.
- Use disinformation guidelines to develop training for communications focal points





WOAH and INTERPOL MoU Operationalisation

- INTERPOL Command and Control Workshop in Africa
- Agro-crime workshop (based on roadmap under current project)



Thank you Any questions?

12, rue de Prony, 75017 Paris, France
T. +33 (0)1 44 15 19 49
F. +33 (0)1 42 67 09 87

woah@woah.int
www.woah.org

[Facebook](#)
[Twitter](#)
[Instagram](#)
[LinkedIn](#)
[YouTube](#)
[Flickr](#)





Any
questions?

