

Wildlife policy in Asia and the Pacific



Executive summary

In 2020, the OIE published a Wildlife Health Management Framework, with the overall objective “to protect wildlife health worldwide to achieve One Health”. Following this, sub-regional discussions were planned in Asia and the Pacific to exchange information and discuss strategies to address geographically relevant issues. These meetings took place in 2020 and early 2021 for the sub-regions of East Asia, South Asia, and the Pacific. This report summarises information shared by Members during these meetings.

In **East Asia** (five Members of East Asia CVOs Forum represented), key topics covered in legislation are wildlife conservation, protection of wildlife, and infectious disease control. Activities relating to wildlife mainly included disease surveillance relating to transboundary animal diseases (TADs).

In **South Asia** (eight OIE Members represented), key topics covered in legislation are wildlife protection, conservation, and management. Activities relating to wildlife mainly included clinical care of wildlife.

In the **Pacific** (four OIE Members represented), key topics covered in legislation are biosecurity, wildlife protection, and endangered species. Activities relating to wildlife mainly included clinical care of wildlife, and disease surveillance.

In **South-East Asia** (nine OIE Members represented), key topics covered in legislation are wildlife conservation and protection, animal and zoonotic disease control and disease surveillance. Activities relating to wildlife included rescue, rehabilitation, clinical care, conservation programs for wildlife, and disease surveillance.

One Health activities conducted in the sub-regions frequently involved wildlife sector representation on “One Health” committees (or similar), with collaborations primarily involving disease surveillance for zoonotic diseases. Some sub-regional variation was reported, with AMR included in East Asia and South Asia, outbreak management in South Asia, illegal wildlife trade in both East Asia and the Pacific, and environmental crime in Southeast Asia.

Members have a common future priority of wildlife disease surveillance. In South Asia, capacity building was identified as key for this, while in the Pacific the focus was on zoonotic diseases. Another priority was to increase awareness and advocacy on wildlife health and its importance. Information shared by Members during these meetings will be used as a basis for further development of appropriate and targeted wildlife health activities within the region, in line with the objectives of the Wildlife Health Management Framework.



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INTRODUCTION

The OIE Focal Points for Wildlife assist the Delegates with issues pertaining to wildlife. They receive regular training workshops, with the next planned for the Asia and the Pacific region in 2021. These Focal Points and their colleagues working in the wildlife sector frequently work apart from the Veterinary Services (VS) in the Member country. With several high impact transboundary diseases—affecting wildlife, livestock and potentially humans—already present or at risk of entering the region, the importance of sharing information between sectors and discussing strategies for prevention and control of diseases is increasingly recognised by stakeholders.

The importance of understanding the role wildlife play in animal and zoonotic diseases is highlighted by high priority diseases such as avian influenza, African swine fever (ASF) and most recently SARS-CoV-2. These all have links with wildlife species either as a primary source or reservoir (known or suspected) to maintain or spread disease. Other societal and environmental concerns around globalisation, climate change, food security and the ecological impact of modern living also need to be considered in the broader context for VS to prepare for and respond to disease threats.

In 2020, the OIE published a [Wildlife Health Survey of Members](#) and a new [Wildlife Health Management Framework](#) based on this document. The overall objective of the framework is to protect wildlife health worldwide to achieve One Health. This will involve a One Health approach to concentrate on the human-animal-ecosystem interface.

In order to focus on geographically relevant issues, the OIE Regional Representation for Asia and the Pacific and OIE Sub-Regional Representation for South-East Asia planned sub-regional discussions to exchange information and discuss strategies to address such diseases, to prime Members to develop regional approaches to new and emerging threats. The meetings took place in 2020 ([East Asia](#)) and 2021 ([South Asia](#), the [Pacific](#) and [South-East Asia](#)). This report summarises the information shared by Members during these meetings and will be used as a basis for further development of wildlife health activities in the region and implementation of the Wildlife Health Management Framework.

**2. Summary of “Virtual Meeting on Wildlife Health for (Members of) the East Asia CVOs Forum”
(8th September 2020)**



Represented Members: China P.R., Chinese Taipei, Hong Kong SAR, Japan, Republic of Korea
Members not represented: Korea (DPR), Mongolia

a. Wildlife policy

Every Member has legislation relating to wildlife, although the priorities and nuance varies. Key topics covered in most include: **wildlife conservation, protection of wildlife, and infectious disease control** (including domestic animal infectious diseases (e.g. ASF) and zoonoses). Additional relevant policies covered areas such as quarantine including specific wildlife species (Japan), prevention of damage to agriculture by wildlife (Japan), and protection of the public from wild animals/birds where exhibited (Hong Kong SAR). China P.R. specifically mentioned protection of aquatic wild animals.

In line with differing topics, various ministries/departments have different responsibilities. Commonly, this will be the Ministry of Agriculture (or similar) and Ministry of Forestry (or similar). They may be explicitly responsible for different activities, such as: **disease surveillance, mass die-offs in wildlife, criminal case investigations, population management, and public education**. For some aspects, responsibilities are delegated to local governments/smaller administrative regions. Cooperation between the Ministries and local governments, universities, private zoos and NGOs was specifically mentioned by Chinese Taipei.

b. Activities relating to wildlife

These mainly include **disease surveillance** performed by the VS relating to **transboundary animal diseases (TADs) with risk to domestic livestock or to zoonotic diseases**: ASF in wild boar, HPAI in wild birds, tuberculosis. Other diseases mentioned were: classical swine fever (CSF), FMD, rabies, COVID-19, Newcastle disease, paratuberculosis, bovine viral diarrhoea or mucosal disease (BVD MD), brucellosis.



Sometimes, these were conducted in **collaboration** with the Environment/Forestry department (or similar; China P.R., Republic of Korea). In Japan, the human health sector (MHLW) conducts wildlife surveillance for other diseases of public health concern: rabies, SFTS virus.

Only one Member (Republic of Korea) mentioned VS involvement in clinical care and diagnosis of wildlife (by local veterinary services). Additionally, Hong Kong SAR highlighted population management and public education activities relating to wildlife-human interactions.

c. Disease reporting

Most disease reporting covered the TADs or zoonotic diseases as listed above in surveillance, in particular: **ASF/CSF, avian influenza (HPAI/LPAI)**. Also mentioned were: brucellosis, bat lyssavirus, COVID-19, FMD, rabies. [See presentation slides for details of results – positives in previous year for ASF, CSF, LPAI, rabies, bat lyssavirus.]

China P.R. did not include any disease reporting information but mentioned monitoring of major animal epidemics (see next section).

d. One Health

Examples of One Health collaborations were given by Members. Several cited “One Health” committees (or similar). Under these, a key activity is ensuring coordination on disease surveillance or response to a disease outbreak, and sharing of information between sectors. Issues addressed by these included: illegal trade in wild animals, zoonotic diseases (plague, avian influenza, rabies, SFTS, coronaviruses), AMR. Networking was improved across sectors and multilevel to address CSF in wild boar in Japan. In the Republic of Korea, a consultancy service enhances laboratory surveillance of emerging infectious diseases (EIDs).

e. Future activities

This was not included as an additional question at this meeting. Priority TADs¹ for the region remain as: FMD, avian influenza, PPR, rabies, and high impact swine diseases (CSF, ASF, PRRS).

¹ <http://www.gf-tads.org/regional/asia/en/>

**3. Summary of “Virtual Meeting on Wildlife Health for OIE Members in South Asia”
(13th January 2021)**



Represented Members: Afghanistan, Bangladesh, Bhutan, India, Maldives*, Nepal, Pakistan, Sri Lanka
[*No country presentation]*

a. Wildlife policy

Every Member has legislation relating to wildlife, although the content varies. Key topics covered in most include: **wildlife protection, conservation and management**. In this sub-region, some Members have legislation relating to **captive management** of wildlife species e.g. Bangladesh (crocodiles, pet birds, deer, elephants) and Nepal (elephants). In relation to trade, CITES was mentioned by both Pakistan and Sri Lanka. Notably, Bhutan has a national strategy for **human-wildlife conflicts** management; Sri Lanka also has guidelines for mitigation of human-elephant conflicts. Nepal and Sri Lanka reported legislation pertaining to protected national reserves (or similar); 14% of the total land area in Sri Lanka is wildlife protected area.

For most, the Ministry of Agriculture (or similar) is responsible for wildlife-related activities. In Afghanistan, NGOs also assist with surveillance of TADs in wildlife (rabies, PPR, FMD). In Bhutan, Departments of Forests and Parks collaborate with the Department of Livestock (both in the Ministry of Agriculture and Forests) on wildlife issues. In Pakistan, there is a division of responsibilities, with wildlife management conducted by wildlife departments under provincial/territorial legislations.

b. Activities relating to wildlife

In this sub-region, **clinical care** of wildlife was listed by all Members as an activity undertaken by the VS. NGOs are important collaborators for this work in Afghanistan. Both Bangladesh and Nepal have wild animal hospitals. Vaccination in wildlife is undertaken in Afghanistan (PPR, FMD, rabies) and Bangladesh. **Research** was also mentioned by Nepal and Sri Lanka. **Conflict management** (e.g. elephants, other wild animals) is important in Nepal and Sri Lanka. Capacity for **diagnostics** of wildlife disease (e.g. laboratories)



was identified in Bangladesh, Bhutan, Nepal and Sri Lanka. **Disease surveillance** mainly covers zoonotic and economically important livestock diseases: e.g. canine distemper, capripox, FMD, HPAI, leptospirosis, Newcastle disease (ND), PPR, rabies, and tuberculosis.

Other activities include monitoring and regulation of illegal wildlife trade (Bhutan), wild animal translocation (Nepal), and environmental activities such as pollution control (Sri Lanka).

c. Disease reporting

Several diseases in wildlife were reported, but there were **no specific trends across the sub-region**. In Afghanistan, surveillance appears to be focused on contact points of wildlife with livestock/humans. Bangladesh reported analysis of samples from sick and dead wildlife.

Reported diseases by Member: Afghanistan – PPR, FMD, rabies, distemper; Bangladesh: tuberculosis, ND, mycoplasmosis, pasteurellosis, coli-enteritis, clostridial enteritis, dermatitis/mange, ringworm, tapeworm, cryptosporidiosis, giardiasis, coccidiosis, capture myopathy; Bhutan – capripox, Nepal – tuberculosis, various in rescued tigers, elephant endotheliotropic herpes virus (EEHV, with 5 of 13 cases surviving). No data was available for Pakistan.

d. One Health

Most Members mentioned some form of One Health committee or inter-ministerial collaboration (excepting Nepal) which involved wildlife to varying degrees. The main aim of these is zoonotic disease surveillance and/or outbreak management. A collaborative project in Sri Lanka includes disease risks to livestock as well as to humans. Multisectoral collaborations are also present in Pakistan and Sri Lanka to address illegal wildlife trade. In Sri Lanka, antimicrobial resistance (AMR) studies include wildlife.

e. Future activities

Besides continuation of existing programs, the following were identified as activities of interest or under development in the Members: human resources (e.g. wildlife veterinarians) and logistical (e.g. diagnostic facilities) capacity building, awareness programs, advocacy, risk assessment at wildlife-domestic animals interface, research on zoonotic diseases, information sharing, and investigation of COVID-19 in suspected animals. A wildlife disease diagnostic laboratory is to be established in Bangladesh.

**4. Summary of “Virtual Meeting on Wildlife Health for OIE Members in the Pacific”
(10th February 2021)**



Represented Members: Australia, Fiji, New Caledonia, New Zealand

Members not represented: Micronesia (FS), Papua New Guinea, Timor-Leste, Vanuatu*

Observers from Pacific Community: Cook Islands, Kiribati, Palau, Samoa, French Polynesia, Tonga, Wallis-and-Futuna Islands; Secretariat of the Pacific Community (SPC) staff

*[*Invited speaker present but no OIE representative]*

a. Wildlife policy

Australia and New Zealand have legislation specifically for wildlife, while Fiji and New Caledonia include wildlife within certain legislation relating to animals. Key topics covered in the sub-region include: **biosecurity, wildlife protection, and endangered species**. Other areas are: animal welfare, conservation, emergency response, notifiable diseases, and trade in endangered species. New Zealand has specific legislation for protection of marine mammals.

Legislation is enacted primarily at the national level, including preventing introduction/managing risks from harmful organisms. Wildlife management includes population management, conservation of endemic species, and monitoring of invasive alien species. In New Caledonia, VS are responsible for disease surveillance in animals while the human health sector leads for zoonoses at the government level; provincial authorities have some responsibilities.

b. Activities relating to wildlife

Clinical care of wildlife by VS was identified in Australia, Fiji and New Zealand. **Disease surveillance** undertaken varies by Member: in Australia, data is received from a range of stakeholders to be integrated into Australia’s Animal Health Information System; New Caledonia tests birds, bats, wild pigs, and newly discovered non-endemic species for diseases of concern; New Zealand undertakes targeted surveillance. Notably, Australia has an integrated cooperative activity system (Wildlife Health Australia) and wildlife



health **network** with >600 members. VS in New Zealand conducts various activities relating to border control and illegal wildlife trade.

There is frequent cooperation/**collaboration** with other stakeholders regarding wildlife activities in the sub-region. These include addressing issues such as: invasive alien species, biodiversity and conservation, habitat conservation, passive disease surveillance, and various studies on wildlife by academics and environmental agencies.

c. Disease reporting

Most wildlife **disease surveillance is general** and relates to sick/dead animals, although **some targeted testing** is conducted. Australia uses a web-based wildlife health system for collection of data. Fiji does not focus on wildlife disease but does some testing of honey bees and leptospirosis in rats. Testing of samples from a newly introduced frog species in New Caledonia detected a positive for *Batrachochytrium dendrobatidis* (although further testing has been postponed due to budget cuts). In New Zealand, 30% of notifications to the veterinary authority relate to wildlife disease; targeted surveillance in wildlife includes avian influenza, Paramyxovirus type 1, and bovine tuberculosis; annual reports are available.

d. One Health

Collaborations between the animal and human health sector were outlined. These include various committees involving wildlife health representation and collaboration on **zoonotic disease** (known diseases such as leptospirosis and avian influenza and emerging infectious disease). In this regard, illegal wildlife trade was cited by both Fiji and New Zealand.

e. Future activities

Priority activities include continuing and strengthening **action against zoonotic diseases** of importance, and work on threatened species, invasive species, and research on wildlife. For New Caledonia, improved biosecurity of pig farms to feral pigs (relating to ASF) and bat zoonoses were highlighted. New Zealand also included mention of streamlined wildlife sample submissions and adaptation for climate change.

5. Summary of “OIE Sub-Regional Virtual Meeting on Wildlife Health and Network for South East Asia”
(28th October 2021)



Represented Members: Cambodia, Indonesia*, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam [*No country presentation]*
Members not represented: Brunei

a. Wildlife Policy

All Members have legislation centering on wildlife conservation and protection, through which wild animals fall within the mandate of the Forestry and/or Environment Ministry or Department. For Laos, legislations for aquatic animals are included with wildlife. Animal disease and zoonotic disease control policies are also mentioned, usually falling within the mandate of the agriculture and/or Livestock Ministry or Department. Laos and Myanmar reported legislation relating to CITES, falling within the responsibility of the Environment/Forestry sector.

Mostly (in Malaysia, Myanmar, Singapore, Thailand and Vietnam), the wildlife sector is with the Ministry of Environment or Forestry but there is always a level of collaboration for wildlife disease surveillance and investigation, mostly in availing of support from veterinary and laboratory services. Selected disease surveillance (mostly for HPAI and ASF) in wildlife is conducted by the livestock or animal health sector in some countries.

b. Activities relating to wildlife

For all the Members, the Environment or Forestry sector carries out rescue, rehabilitation, and conservation programs, as well as wildlife management in the wild and in captivity. In Singapore, this sector provides all veterinary services for not only terrestrial wild animals but also for companion and stray animals.

In other Members, the Animal health sector provides veterinary services—such as clinical and laboratory services—for rescued wild animals. The involvement of the animal health sector in wildlife disease surveillance varies: from surveillance on major diseases in wild boars and migratory birds in Malaysia, Thailand, Philippines and Vietnam; focus on major species at the human-wildlife interface in Myanmar; joint wildlife disease surveillance in Laos; to only involvement with food animals in Singapore. Other Non-



Governmental Organizations (e.g. EcoHealth Alliance, Wildlife Conservation Society, and USAID) and research/educational institutes are also involved in wildlife disease surveillance. Collaboration on disease control in the sub-region exists at various levels.

c. Disease reporting

In the past year, a few Members reported wildlife disease to OIE-WAHIS – most prominently ASF in wild boars (Laos and Vietnam) and coronavirus in bats. For other Members, wildlife specimens were collected and tested but the results were negative.

d. One Health

In many Members (Malaysia, Philippines, Myanmar, Thailand, and Vietnam), the environment/forestry sector is part of One Health initiatives through engagement in various committees; some are also engaged in wildlife health networks within their individual countries (Laos and Vietnam). In Malaysia and Myanmar, joint efforts in combating environmental crime are also included within One Health activities.

e. Future activities

Future activities were focused for most Members on development of a national plan for wildlife disease surveillance, capacity building of field staff on response to wildlife disease outbreaks, specimen collection, and enhancing laboratory capabilities. A general theme was to increase awareness and to focus on advocacy for wildlife health. Some Members also included strengthening collaborations both nationally and internationally, wildlife disease reporting, and risk assessments of wildlife disease.



5. Combined overview for all sub-regions

a. Wildlife Policy

In most Members, specific legislation is in place for wildlife; in some, wildlife may be included in legislation relating to animal species or human health (for zoonotic diseases). **Wildlife protection** is a common key topic in all sub-regions. Wildlife conservation, management and disease surveillance were also reported across sub-regions. Themes highlighted in particular sub-regions were: captive management of wildlife species and human-wildlife conflicts in South Asia, and biosecurity, endangered species and invasive animal species in the Pacific. China P.R. and New Zealand have specific legislation pertaining to protection of wild aquatic species.

Legislation is usually the responsibility of national level governments, although some aspects are conducted at lower administrative levels in some Members. Cooperation between sectors involving multiple stakeholders was reported by many Members, particularly for those relevant to zoonotic diseases or TADs of interest in livestock.

b. Activities related to wildlife

VS are involved in **disease surveillance** of wildlife in all sub-regions. The focus of this surveillance varied between Members – for many, the focus is on TADs and/or zoonotic diseases. Priority diseases common across sub-regions included **ASF and avian influenza**. Selected wildlife activities are performed in collaboration with other sectors/stakeholders, most commonly the human health sector on zoonotic diseases.

All Members in South Asia and the Pacific reported that VS conduct clinical care of wildlife; this was only highlighted by some Members in East Asia. Human-wildlife conflict was included by some Members in East Asia and South Asia. Commonalities between South Asia and the Pacific included: leptospirosis as a priority zoonosis, illegal wildlife trade, and research on wildlife. Members in the Pacific also highlighted invasive alien species as a priority. Capacity for wildlife disease diagnostics was highlighted in South Asia.

c. Disease Reporting

Wildlife disease reporting **varies greatly** not only across the region but also within sub-regions. Although some individual Members (such as Australia) have strong systems for disease reporting, in most Members data collection and sharing is patchy. Most wildlife disease surveillance is general, based on sick/dead wildlife and/or investigation of major animal outbreaks. The reported/prioritised diseases vary: ASF/CSF and avian influenza were prioritised in East Asia; in South Asia and the Pacific, each Member had individual priorities. Avian influenza, rabies and tuberculosis were identified by several Members across the region.

d. One Health

The wildlife sector is involved in One Health committees (or similar) for most Members in the region, supporting coordination and information sharing activities. In all sub-regions, zoonotic disease is included within these committees. Priority activities on wildlife for One Health vary between sub-regions; for example, some Members include AMR, outbreak management, or illegal wildlife trade.

e. Future activities

Overall, Members have a common priority of **wildlife disease surveillance**. Noting that this topic was not specifically covered at the East Asia meeting, priority TADs identified for the region include diseases which may affect and/or circulate in wildlife, including avian influenza and ASF/CSF. In South Asia, capacity building including for disease diagnostics was listed as key for the future. In the Pacific, strengthening action against zoonotic diseases was prioritised.



6. Conclusions and follow-up

These meetings gave OIE Focal Points and other interested representatives from Members in the region the opportunity to discuss wildlife health, understanding the regional situation better. During each meeting, an introductory session gave some background to the importance of wildlife health and key information on the new OIE Wildlife Health Management Framework, before Members made their presentations to share experiences. These experiences provide a snapshot of the situation in each Member relating to wildlife health, in particular highlighting current legislations and wildlife activities involving VS.

Looking to the future, this information will be used by the OIE to provide appropriate and targeted support to Members in the region (including those who were unable to join the earlier meetings). Noting that some challenges faced are relevant for all Members across sub-regions, regional activities can be planned – for example, on strengthening disease surveillance and reporting, and continued support for TADs such as ASF and avian influenza. These meetings also highlighted several topics which require sub-regional attention (or even more focused support) – for example, sub-region-specific disease issues (including priority zoonotic diseases), human-wildlife conflict, invasive alien species, aquatic species, and illegal wildlife trade.

In addition, cross-cutting issues such as support for information sharing, multi-sectoral collaborations, and networking will also be addressed in the future. These and other activities will be developed in line with the objectives of the Wildlife Health Management Framework, “Protecting wildlife health to achieve One Health”.