

出國報告（出國類別：研究）

赴世界動物衛生組織（WOAH）
亞太區域代表處研習報告

服務機關：農業部動植物防疫檢疫署基隆分署

姓名職稱：鄭昉苓 科長

派赴國家/地區：日本

出國時間：112年 08 月 26 日至 112 年 11 月24 日

報告日期：113 年 2 月 29 日

行政院及所屬各機關出國報告摘要

出國報告名稱：赴世界動物衛生組織(WOAH)亞太區域代表處研習報告

出國計畫主辦機關/聯絡人/電話

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鄭昉苓/農業部動植物防疫檢疫署基隆分署/科長/24247363*210

出國類別：研究

出國期間：2023 年 08 月 26 日至 2023 年 11 月 24 日

出國地區：日本

內容摘要：

世界動物衛生組織（OIE，其縮寫於 2022 年改為 WOAH），總部位於巴黎，全球設有 5 個區域代表處，其中亞太區域代表處位於東京，其任務為確保國際間動物疾病狀況透明度，蒐集分析及傳播獸醫科學資訊，並鼓勵國際間團結控制動物疾病，以確保動物及其產品衛生健康。

我國自 1954 年成為會員國以來，積極參與各項活動，並致力於與 WOAH 及各會員國合作，以提升我國動物防疫檢疫水準及區域聯防功能。

本計畫研習期間，協助亞太區域代表處針對「Regional Work Plan Framework (RWPF)」及「Regional Aquatic Animal Disease Reports」蒐集研析相關會員國家/地區資料，依據研析結果提出結論與建議，作為日後執行相關業務及規劃後續研習、訓練或會議等工作之參考。另至札幌北海道大學參加（Sub-regional Meeting for Veterinary Education Establishments (VEEs) and other Stakeholders of Veterinary Workforce Development in East Asia）會議，並前往東京羽田機場觀摩入境旅客檢疫，收穫豐碩。

研習期間與 WOAH 工作人員互動良好，瞭解 WOAH 當前重要工作及方向，強化我國與 WOAH 合作往來之基礎。

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壹、目的

世界動物衛生組織 (World Organisation for Animal Health, WOA) 其前身為 Office International des Epizooties (OIE)，於 1924 年在法國成立，總部設於巴黎，其任務為確保國際間動物疾病狀況之透明度、蒐集分析及傳播獸醫相關科學訊息、鼓勵國際間團結控制動物疾病、藉由發佈國際貿易有關之動物及動物產品健康標準維護世界貿易安全、完善國家獸醫服務的法律框架與資源、提供經濟動物來源良好保證及基於科學的方式提升動物福利。(OIE 縮寫已於 2022 年第 89 屆年會決議更改縮寫為 WOA，以下稱 WOA)。

WOA 為世界貿易組織 (World Trade Organization, WTO) 所指定之動物健康與人畜共通傳染病相關標準、準則與建議制定機構，為擁有 183 個會員國 (2023 年 5 月) 的國際性組織。並於非洲、美洲、歐洲、亞太及中東等 5 區域設置有區域代表及次區域代表。於亞太區域，其代表辦公室設於東京，另有次區域代表辦公室設於曼谷，亞太區域共有 32 個會員國。目前 WOA 總部及各區域代表處經費由會員國以捐助名義支應，會員國常態性派遣支援人員於 WOA 協助會務推動同時研習國際組織運作。以亞太區域代表處為例，目前有來自日本、中國大陸等國官方獸醫人員支援該辦公室業務。

我國先前於 2018 年派 2 人次各 21 天前往亞太區域代表處 (以下簡稱「東京局」) 研習，成果豐碩，然囿於國際合作計畫項下限制，短期研習仍無法深入了解及深化與 WOA 合作關係，為更深入瞭解 WOA 之運作，農業部 (改制前為農委會) 農業菁英計畫每年派員前往東京局進行短期研習 3 個月，先前已分別於 2020 及 2022 年派員前往研習，各研習人員表現優異，故東京局多次表示期望我國能持續派員前往支援。本次研習最重要的目的在於藉由實質參與其運作，強化我國與該組織及其相關國際組織之往來與業務合作，以提升我國在國際社會的能見度。

本次研習由 2023 年 5 月 23 日獲我國 WOA 常任代表農業部 (改制前為行政院農業委員會) 杜文珍次長正式去函向東京局推薦，續與東京局協調安排，決定研習時程為 2023 年 8 月 28 日至 11 月 23 日，為期 87 天。出發前藉由參加相關視訊、討論，搜集及研究相關資料，蒐集我國動物疫病、動物產品衛生安全等相關議題及資料等準備工作，以便適時介紹我國優良獸醫服務體系及分享經驗。

貳、過程

本次赴 WOAH 東京局研習自 2023 年 08 月 28 日至 2023 年 11 月 23 日，為期共 87 日。

研習地點位於東京大學彌生校區食品科學館 5 樓。因應特殊傳染性肺炎 (COVID-19) 疫情，辦公室持續採行部分視訊上班，職員每週可以選擇 2 日居家遠距離辦公。

112 年表定行程表

日期	說明
2023/04-07 月 前置作業	1. 瞭解東京局業務內容及人員分組 2. 參加 WOAH 相關視訊會議 3. 加強英文及日文能力
2023/08/26	抵達日本
2023/08/28	赴 WOAH 代表處研習 1. 參與 WOAH 東京局業務 2. 視訊參加 WOAH 會議
2023/09/11-09/13	赴札幌參加「Sub-regional Meeting for Veterinary Education Establishments (VEEs) and other Stakeholders of Veterinary Workforce Development in East Asia」及「21 st Asian Association of Veterinary Schools (AAVS) Meeting」
2023/09-11 月	赴 WOAH 代表處研習 1. 參與 WOAH 東京局業務 2. 視訊參加 WOAH 會議 3. 協助彙整分析東京局「Implementation of Regional Work Plan Framework (RWPF)」簡報引用數據資料 4. 針對 2013-2022 年間東京局與 NACA (Network of Aquaculture Centres in Asia-Pacific) 合作出版的「the Regional Aquatic Animal Disease Reports」，彙整分析參與國家/地區提交報告情形 5. 10 月 30 日參訪動物檢疫所羽田空港支所 6. 分析臺灣在動物防疫檢疫工作方面的國際優劣勢
2023/11/24	返國

8月

- 8月26日抵達東京。
- 8月28日上午至東京局報到，同日下午參加東京局定期線上 staff meeting (由 Dr.Kugita 主持)；及 WOA 內部定期會議 (由 Director General Dr. Monique Eloit 主持)，主要由各區域依序報告近期重大活動及事務之推展進度更新。
- 8月29日參加「WOAH Food Safety Webinar-Production, Evaluation and Regulation of Cultured Meat」, 本次講座主要針對培養肉品(Cultured Meat)之食品安全問題進行討論，對此類產品進行評估時，建議各國食品安全部門可與貿易夥伴國家合作及分享經驗，以汲取對培養肉品進行安全評估所需要的參考數據和建議。此外，如何讓利害關係人/團體的積極參與也有助於對培養肉品進行相關食品安全評估。FAO 專家亦提醒，對此新興食品領域相關專有名詞之採用將是個重要議題，建議參考 FAO 提供的資料，並依國家文化及語言等因素整合，俾與國際用語接軌。(參考網站：<https://www.fao.org/documents/card/en/c/cc6967en>)
- 8月30日參加馬鼻疽網路研討會「Webinar on glanders」, WOA 專家說明陸生動物法典對馬鼻疽的規範內容，法國 Dr. Karine Laroucau 簡報馬鼻疽之診斷方法及參考實驗室所扮演之角色，包括 CFT 檢測 (Complement Fixation Test) 之標準化及提供訓練等，印度 Dr. Harisankar Singha 報告關於該國如何進行馬鼻疽包括監控、管理等防治工作。(參考網站：<https://www.woah.org/en/what-we-offer/safe-trade-and-movement-of-animals/international-competition-horse-movement/>)
- 自8月30日經核准加入東亞次區域獸醫教育與人力發展會議「East Asia sub-regional meeting on veterinary education and workforce development」籌備工作，持續參與相關會議前置討論及籌備工作。

9月

- 9月5日，由東京局同仁簡介 WOA、PVS (Performance of Veterinary Services 及 Disease Reporting (WAHIS 系統) 等內容。
- 9月6日，內部討論9月11日 Sapporo meeting 並持續進行會議前置籌備工作。
- 9月7日：
 - 上午參加東京局與 FAO 之 Sub-Regional GF-TADs (The Global Framework for the Progressive Control of Transboundary Animal Diseases) 每月定期會議，主要由 FAO-RAP 及 SRR-SEA 等單位報告近期重大活動及事務之推展進度更新。
 - 下午由東京局同仁簡介 GF-TADs 等內容。

- 下午以線上會議方式參與 WOH 總部與東京局預定於 10 月中旬在中國青島辦理 PVS Pathway Orientation Training Workshop 籌備細節之內部前置討論。
- 9 月 8 日：
 - 上午與北海道大學主辦方迫田義博教授方面進行線上 Hybrid setting testing，確認實體及線上會議設備等籌備細節。
 - 下午以線上會議方式參加 WOH 總部、東京局及中國動物衛生與流行病學中心 (CAHEC) 三方對 10 月中旬在中國青島辦理 PVS Pathway Orientation Training Workshop 籌備討論，主要討論議程流程等細節。
 - 下午以線上會議方式參加東京局、FAO 代表及 SAARC 秘書處討論 the SAARC CVOs Forum 第一次籌備會議，主要係討論辦理天數及經費分攤來源等議題。
- 9 月 11 至 13 日：
 - 11 日協助東京局於北海道大學主辦「Sub-regional Meeting for Veterinary Education Establishments (VEEs) and other Stakeholders of Veterinary Workforce Development in East Asia」之實體與線上會議，當日下午並直接參與實體分組討論，實際與各國代表經驗及意見交流。
 - 12-13 日參加「21st Asian Association of Veterinary Schools (AAVS) Meeting」。

本次會議中，有超過 40 位來自獸醫領域的教育機構、政府單位及其他相關單位，如：Asian Association of Veterinary Schools (AAVS)、Federation of Asian Veterinary Associations (FAVA) 及 Southeast Asian Students Association (SEASA) 等參與，提供不同國家在獸醫教育（包含繼續教育）及獸醫人力培育（包括女性參與）等議題的相關經驗與資源分享、討論的交流平臺。

WOH 將持續提供適當的工具與指南，以改善會員國/區域的獸醫教育成果，協助各會員國評估、規劃及管理獸醫人力；並持續支持或辦理各國和區域層級的獸醫人力相關研討會議，繼續為區域成員提供經驗分享交流的機會。

此外，在本次 AAVS 會議中，來自泰國代表 SEAVSA 的 Dr. Khongsak Thiangtum 與 Dr. Prawit Butudom，介紹該地區成員國規劃、制訂的「Development and application of Southeast Asia Veterinary School Accreditation Standards」草案，透過本次分享，足見以泰國為首的 SEAVA 區域國家已積極地提升該地區各獸醫學校的水準，未來透過該認證標準實施，可相互認證學歷，讓區域的獸醫人力更容易相互流動。
- 9 月 14 日：以線上方式參加「WOH (internal) workshop to explore ways to improve detection capacity for Epidemic Intelligence from Open Sources (EIOS) in Asia and the Pacific region based on country prioritization.」，「WOH Epidemic Intelligence from Open Sources

(EIOS) expansion strategy」是由澳洲 Department of Agriculture, Fisheries and Forestry (DAFF) 出資的一項新計畫，主要是支持 WOAH Seventh Strategic Plan 的「early threat warning project」(2020-2025)。本次工作坊的目的為：

- 讓參與者協助改善 EIOS 系統的偵測（搜尋）能力。
- 聚焦在主動偵測亞太地區對非官方動物疾病相關資訊（即「rumour tracking」），以規劃區域內國家/地區的偵測排序，並請各參與者提供地區新聞、社群媒體網站及地方語言常用的動物疾病用詞供資料庫參考。
- 9月15日：
 - 內部討論 Regional Work Plan Framework（簡稱 RWPF）報告內容架構及各小組負責內容，本次主要針對依據 WOAH 7th Strategic Plan 所擬訂的 Third RWPF (2021-2025) 提報執行成果。
 - 東京局同仁簡要介紹 Regional Work Plan Framework (RWPF) 內容架構，並指導協助整理 GF-TADs 小組相關資料。
- 9月19日：
 - 參加東京局定期線上 staff meeting（由 Dr.Kugita 主持），主要由各小組依序報告近期重大活動及事務之推展進度更新。
 - 東京局同仁簡介 AMR、One Health 及 Wildlife 等 One Health Team 推動之內容。
- 9月20至21日
 - 協助彙整 GF-TADs 及 One Health 等小組之 RWPF 成果資料。
 - CVO of FAO, Dr. Keith Sumption 於 20 日下午到東京局拜會。
- 9月22日
 - 依據 WOAH HQ 對 9 月 11 日會議結論草稿內容的建議，在內文增加獸醫教育機構及政府單位也應積極推動 VPPs (the veterinary paraprofessional) 的養成，以作為解決各國獸醫人力不足問題的相關配套。
 - 由 WOAH RRAP-SSR 主辦 Webinar 「Biosecurity preparedness」，主要係討論動物發生傳染病經撲殺後的生物安全、如何安全並有效地處理動物屍體，及清潔消毒等工作，各國並交流處理撲殺後動物屍體現場面臨的問題及經驗。

依據馬來西亞 Dr. Muhammad 報告其調查統計結果，影響動物屍體處理的因素依序為：處理時間、氣味、對環境的衝擊、處理設備之可及性、費用、生物安全及空間需求等。

與會美國專家 Dr. Gary Flory 說明，對於撲殺後動物屍體處置的生物安全原則，包括：隔離（避免交叉污染）、清潔（進入畜牧場的物品都須將可視的塵土、糞便等污物清除乾淨）及消毒（包括人、車、設備及畜牧場環境等都必須徹底消毒），並特別提醒使用消毒劑時，要確認其不活化病原需要的接觸時間（contact time）及其適用用途（registered uses）。

Dr. Flory 並簡要介紹、分析後列 4 種動物屍體處理方式的優缺點：Deep burial、Open burning、Shallow burial with carbon 及 Composting，提供與會國家視個案發生情形作為擇定動物屍體處理方式的參考。

- WOAH Director of general, Dr. Monique Eloit 因參加 21 日於東京舉辦之第五屆 G7 Chief Veterinary Officers Forum，並於 22 日下午至東京局辦公室訪視，與東京局各同仁面對面進行業務意見交流。
- 9 月 25 日：
 - 參加東京局定期線上 staff meeting (由 Dr. Kugita 主持)，主要由各小組依序報告近期重大活動及事務之推展進度更新，Dr. Kugita 並轉達 DG Dr. Eloit 之指示，為迎接 2024 年 WOAH 成立 100 週年，於 2024 年將與日本農林水產省 MAFF 合作辦理活動，期鼓勵年輕學生未來投入獸醫及農業科學相關領域。
 - 與巴基斯坦新任 CVO Dr. Khalid Ashfaque 和該國獸醫相關單位代表召開線上會議，會中向巴國簡介 WOAH 東京局相關工作及同仁，並討論未來協議合作事項，包括：PVS 評估、Rabies 及 LSD 等疫苗等。
 - 參加東京局及 FAO 代表討論 the SAARC CVOs Forum 籌備會議，主要係討論辦理會議議程及邀請與會國家 CVO 之相關執行細節。
 - 與東京局同仁內部討論 10 月份在中國舉辦豬病研討會 (參加國家 20 國) 議程草案。
- 9 月 26 日：
 - 參加線上會議討論 10 月上旬在孟加拉召開 SAARC GF-TADs meeting agenda 及 logistic 等籌備工作內容。
 - 參加 FAO 及 WHO 合作之「Tripartite Webinar on Rabies」，本次分享主題包括狂犬病在印度、菲律賓等國的監測情形，如印度已經發展出可利用智慧型手機 APP 記錄並上傳疑似之犬隻病例資訊，並建議當發生一個動物病例時，要對發生地點 5-10 公里範圍內的犬隻完成環狀免疫。
另印度及印尼也分享發生動物及人的狂犬病疫情與相關防控措施等，並邀請幾位曾被陽性犬隻咬傷的民眾分享其經驗，在人類疫情控制部分，要特別注意是否曾有被動物咬傷病史，而對學生、一般民眾的教育宣導工作也相當重要，在印度甚至印製通報熱線小卡，上面並教導一般民眾被動物咬傷時，當下可自行立即處置的步驟。
- 9 月 27 日
 - 線上參加「WOAH East Asia Wildlife Health Network meeting #9」，並邀請美國 APHIS Dr. Mary Donahue 發表專題演講「Restricted Use of HPAI Vaccine in California Condors」，期透過疫苗適當使用，讓 California Condors 避免因高病原性家禽流感死亡，造成其群體復育困難。由於本計畫試驗結果將另正式發表於研究期刊，故 APHIS 專家僅簡單說明各實驗組施打疫苗劑量，並未說明結果。

- 東京局同仁簡介 Aquatic animal health 在亞太地區推動工作及相關內容，並介紹東京局與 FAO、NACA (Network of Aquaculture Centres in Asia-Pacific) 合作編纂之 Regional aquatic animal disease report (<https://rr-asia.woah.org/en/projects/qaad-reports/>)
- 9月28日
 - 參加東京局與泰國辦公室內部定期線上 GF-TADs staff meeting，依序報告近期重大活動及事務之推展進度更新。
 - 東京局內部討論 the SAARC CVOs Forum 籌備會議議程，主要係討論第1天 WOAH 與 FAO 合辦之 GF-TADs meeting 議程的相關細節。
- 9月29日
 - 內部討論 RWPF 成果資料初稿內容。
 - 協作完成「Sub-regional Meeting for Veterinary Education Establishments (VEEs) and other Stakeholders of Veterinary Workforce Development in East Asia」Mission report 初稿。
 - 協助辦理「World Organisation for Animal Health Animal Welfare Webinar 2023: Using WOAH Standards to support good animal welfare in Asia and the Pacific」活動，本次邀請講者分享關於動物福利的主題包括：陸路動物運輸、犬隻族群控制、動物屠宰及疾病控制下的動物撲殺等，在犬隻族群控制部分，新加坡講者 Dr. Anhui Lin 分享「Trap-Neuter-Release/Rehome-Manage (TNRM) Programme: A Humane Approach to Dog Population Management in Singapore」，新加坡政府自 2018 年 11 月起起展開 5 年專案計畫，期控制當地流浪犬隻族群，針對捕捉到的流浪犬隻，會對每隻個體完成絕育（不限性別）、注射狂犬病疫苗（僅施打 1 劑，因重複捕捉困難尚無補強注射）、晶片植入及剪耳等措施，並與當地動保團體合作，於固定餵食點（計有 8 處）以「乾淨餵食」方式照顧流浪犬隻。經後續追蹤統計，截至 2023 年 8 月計捕捉流浪犬隻約 4,000 隻(3,992 隻)，其中 Rehome 47%(1,872 隻)、Fostered/Sheltered 17%(700 隻)、Released 34% (1,345 隻) 及 Other 2% (75 隻)，rehomed/ fostered 的個體超過 60 %，且來自民眾投訴流浪犬的平均月案件數顯示有逐年下降趨勢（2018-2022 年）。

10月

- 持續協助 TADs team 檢視 Regional aquatic animal disease report，並與 WAHIS 系統資料進行比對分析。
- 持續協助分析「World Organisation for Animal Health Animal Welfare Webinar 2023: Using WOAH Standards to support good animal welfare in Asia and the Pacific」活動之參與情形，包括參與人員、問卷調查及回饋意見等資料。

- 協助檢視預定於 11 月 21、22 日在中國青島辦理「The fifth WOA Regional Workshop on Swine Disease Control in Asia and the Pacific」之提案書、議程等相關草案資料。
- 持續協助分析 RWP 關於 2021 至 2022 年間 Reference laboratories and Collaborating Centres 相關成果資料。
- 10 月 25 日，參加「Emerging topics in our food environment」視訊講座。
- 10 月 30 日，在東京局聯繫安排下，參訪日本農林水產省動物檢疫所羽田空港支所，並進行邊境檢疫業務實務經驗交流，另因植物檢疫業務另隸屬植物檢疫所，故本次至羽田機場參訪行程未涉及邊境植物檢疫業務實務。對羽田機場目前採行邊境入境旅客檢疫措施可供參考之處，簡要摘要重點如下：
 - 在可疑行李上以束帶標示明顯警示標籤及可感應的 security tag，方便監控檢查。
 - 羽田機場國際航廈入境大廳設有 8 道行李轉盤，羽田空港支所協調航站盡量將高風險航班之托運行李安排在靠近動物檢疫櫃檯附近的轉盤。

11 月

- 11 月 13-16 日協助東京局於 Youtube 網路平臺線上轉播於印度新德里召開之「33rd Conference of the Regional Commission for Asia and the Pacific」，前協助彙整分析之「Implementation of Regional Work Plan Framework」簡報，由 Dr. Kugita 於 13 日下午會議中報告。
- 持續檢視 Regional aquatic animal disease report，且與 WAHIS 系統資料進行比對分析，並於 11 月 20 日東京局定期線上 staff meeting(由 Dr. Kugita 主持)中，以「Analysis of the Regional Aquatic Animal Disease Reports」為主題報告，主要係分析 2013 至 2022 年間，亞太區域應通報水生動物之疫病種類變化，及區域內各會員國/地區對其轄區發生水生動物疫病之通報情形等。
- 11 月 24 日返回臺灣。

參、研習重點及心得

一、WOAH 亞太區域代表處簡介

WOAH 亞太區域代表處（以下簡稱「東京局」）研習，由區域代表 Dr. Hirofumi Kugita 主持，研習期間東京局之團隊成員及其業務分組（圖 1）：

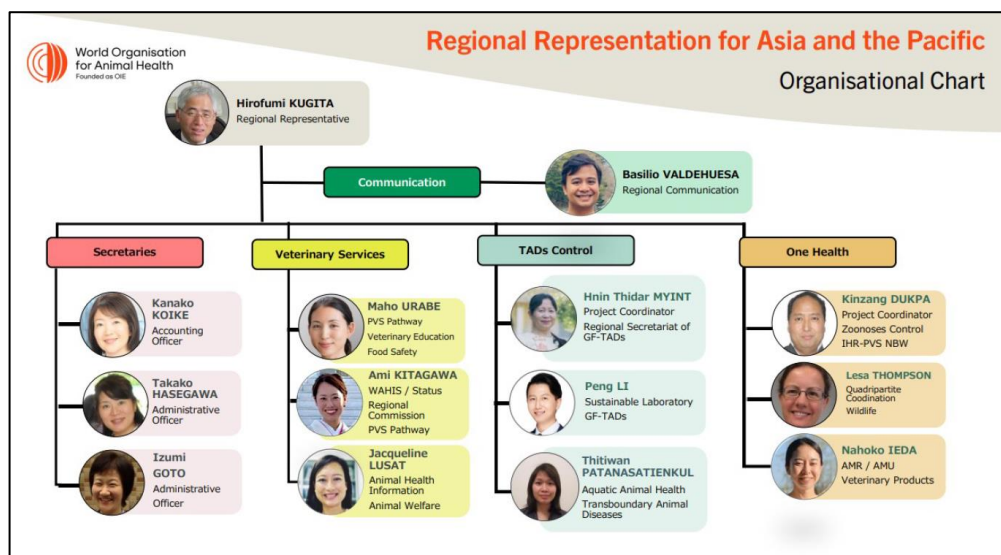


圖 1：Organisational Chart of WOAHRAP

(網址：<https://rr-asia.woah.org/en/regional-representation/>)

- (一) Mr. Basilio Valdehuesa (美國，Regional Communication Officer)。
- (二) One Health Team：有 Dr. Kinzang Dukpa (不丹，Regional Project Coordinator)、Dr. Lesa Thompson (英國，Regional Project Officer) 及 Dr. Nahoko Ieda (日本，AMR Regional Project Officer) 等 3 位。
- (三) TADs(Transboundary Animal Diseases) Team：有 Dr. Hnin Thidar Myint (緬甸，Regional Project Coordinator)、Dr. Peng Li (中國，Regional Project Officer) 及 Dr. Thitiwan Patanasatienkul (泰國，Aquatic Animal Health Officer) 等 3 位。
- (四) VS(Veterinary Services) Team：有 Dr. Maho Urabe (日本，Regional Veterinary Officer)、Dr. Ami Kitagawa (日本，Regional Veterinary Officer) 及 Dr. Jacqueline Lusat (馬來西亞，Animal Health Information Officer) 等 3 位。
- (五) Secretaries：包括 Ms. Kanako Koike (Accounting Officer)、Ms. Takako Hasegawa 及 Ms. Chiharu Izumi 等 3 位日籍行政人員。另東京局聘有區域顧問，為常駐於尼泊爾的 Dr. Pasang Tshering，主要協助 VS Team 及南亞地區事務。

東京局目前之正職人員除透過對外招募，並由日本及中國大陸等官方政府以 2 年為任期派員協助（分別為 Dr. Ami Kitagawa 及 Dr. Peng Li），其餘國家亦表達興趣派員協助。

本次研習期間，同時有香港政府食物環境衛生署派遣支援人員 1 名 Dr. Ka Long Lao 至東京局短期支援 3 個月，以 VS Team 業務為主，而職則被分配於 TADs Team 擔任研習生，主要在 Dr. Myint 及 Dr. Patanasatienkul 指導下，配合 TADs Team 及其他小組之實際業務狀況，自主機動支援協助相關工作，本次研習工作重點主要涉及 TADs 及 VS Team。

二、本次參與重點工作分述如下：

- (一) 協助東京局於 9 月 11 日假北海道大學辦理「Sub-regional Meeting for Veterinary Education Establishments (VEEs) and other Stakeholders of Veterinary Workforce Development in East Asia」(東亞地區獸醫教育機構及獸醫人力發展之利益關係人之次區域會議)，及參加 9 月 12、13 日「21st Asian Association of Veterinary Schools (AAVS) Meeting」(第 21 屆亞洲獸醫教育機構聯盟會議)。

本次會議之我國參加代表包括：官方代表農業部動植物防疫檢疫署鄭清薰科長（參加 9 月 11 日會議），學界代表國立臺灣大學獸醫專業學院張芳嘉教授與國立中興大學獸醫學院陳德助院長等 2 位（均參加 9 月 11 至 13 日會議）。

前揭會議議程如參考資料 1、2，會議照片如參考資料 3。會議資料網址：
<https://rr-asia.woah.org/en/events/east-asia-sub-regional-meeting-on-veterinary-education/>
<https://www.vetmed.hokudai.ac.jp/project/aavs2023/>

於 9 月 11 日會議中，職主要協助上午視訊會議聊天室之掌控及協助下午首次採用「world café」方式進行隨機分組專題討論。

當日分組專題討論議題包括：

1. 「Review, Reflect, and Share」-接續上午議題（包括獸醫服務人力、獸醫教育等方面所面臨挑戰）進行經驗及想法分享，並討論如何建構各國或區域性之分享網路。
2. 「How can we collaborate」-討論地區會員國家如何促進關於獸醫教育、獸醫專業培訓能力及勞動力需求等面向之結盟合作。

WOAH 於 11 日研討會所得結論如下：

1. WOAH 採行強化措施，持續致力於獸醫教育和獸醫人力發展活動，最近重點關注於推動獸醫人力發展計畫和性別評估。

2. 儘管存在部分差異，東亞地區的 WOA 會員國在獸醫教育和獸醫人力發展等議題仍面臨一些相同挑戰，透過次區域和區域之聯繫網路可以促進資訊、經驗和資源共享。
3. 許多會員國的獸醫課程、訓練資源與當地獸醫執業的實際需求仍有落差，須根據不同 WOA 會員國之獸醫教育機構、獸醫官方單位或同等機構之情況進行評估及提出解決方案。
4. 為了加強獸醫服務和有效利用資源，須要各利害關係人監督地方和國家層級獸醫人力發展進度。
5. 從事公共服務及畜牧業之獸醫人力短缺，尤其在一些會員國的農村地區。須要付出更大的努力來協調國家層級的活動，建議提升至國家層面協調促進獸醫和獸醫輔助專業人員（the veterinary paraprofessional, VPP）的工作機會（例如透過獎勵措施或培訓機會），以加強其國家獸醫服務體系。
6. 女性投入獸醫產業之趨勢日益明顯，但擔任領導職之女性人數仍不足。應制定更多與性別相關政策，並鼓勵女性參與獸醫服務。
7. WOA 與亞洲獸醫學校聯盟等專業組織持續合作作為全球、區域和次區域等獸醫教育機構之交流平臺，以交換最新資訊及經驗，並促進落實 WOA 標準。

至參加北海道大學獸醫學院於 9 月 12 及 13 日舉辦之「第 21 屆亞洲獸醫教育機構聯盟會議」部分，在本次會議中引起最多討論的係以泰國為首的 AVSBN (ASEAN Veterinary Statutory Body Network) 及 SEAVSA (South East Asia Veterinary School Association) 等次區域組織，已著手制訂「South East Asia Veterinary School Accreditation Standards」(SEA 獸醫學校認證標準) 草案共 11 點（詳如參考資料 4），目標是在東協區域會員國完成獸醫教育之獸醫師未來能獲得一致化認證，以促進該區域獸醫人力流通。

參與本次會議心得

1. 會中各國普遍認為獸醫人力發展及獸醫教育最大的挑戰是偏鄉人力短缺，經濟動物獸醫不足，導致動物醫療不足和食品安全問題，因為經濟及就業市場的考量，薪資高低仍是獸醫選擇專業領域的現實因素。解決方案可能包括獸醫學校更加注重經濟動物獸醫師訓練，提供獎勵措施，鼓勵獸醫到偏遠地區工作，例如提供償還就學貸款計畫或提供獎學金。
2. 獸醫教育持續跟進不斷發展的新知和技術，學校應定期更新課程，包括最新的診斷、治療和動物福利標準，加強獸醫師之實務操作訓練，因應新興動物傳染病及人畜共通疾病的防控技術，健全獸醫服務人力發展。應確保獸醫服務體系之人力素質，以利提供優良獸醫服務，而獸醫教育

機構是獸醫人力素質養成關鍵，獸醫教育機構、獸醫法定機構及獸醫主管機構應加強交流溝通，整合獸醫教育體系及相關單位的意見。

3. 鼓勵各大學應用 WOA 核心課程指引及建議調和獸醫教育課程，建立課程調和機制，納入獸醫師公會及業界建議，反映未來獸醫職場需求及技術發展，加強畢業後之實際執業能力，並持續豐富繼續教育內容，因應新興傳染病及人畜共通傳染病的挑戰，確保提供健全及穩定的獸醫服務體系。評估是否導入第三方認證制度，確認課程及訓練符合標準。就我國獸醫之高等教育制度，後續仍應針對師資、人力、設備、課程尋求改制解決方案及配套積極推動，避免國家甚至區域間之認證問題，提升我國競爭力，以與國際接軌。

(二) 協助東京局彙整分析「Implementation of Regional Work Plan Framework (RWPF)」簡報內引用之數據資料，並由 Dr. Kugita 於 11 月 13 日在印度新德里舉辦之「33rd Conference of the Regional Commission for Asia and the Pacific」報告。

前揭會議議程如參考資料 5，東京局完整簡報內容如參考資料 6。本次會議官網及線上錄影直播網址：

<https://rr-asia.woah.org/en/regional-commission/33rd-regional-conference-in-new-delhi-india/>

<https://www.youtube.com/watch?v=0nfh5IKnXfg>

本次 RWPF 簡報係東京局與 WOA 總部、亞太次地區代表處（曼谷辦公室）及其他相關組織合作，評估亞太地區執行區域工作框架（Regional Workplan Framework for the Regional Commission for Asia and the Pacific, RWPF）之執行成果，並向亞太區域委員會進行 2 年 1 次的報告，若區域委員會認為有必要，可在 2025 年之前修改其內容及區域目標。

現行之第 3 版亞太地區 RWPF，係東京局依據 WOA 第 7 版策略計畫（WOA Seventh Strategic Plan）更新，執行期間為 2021 至 2025 年，從當中擇定 5 項關鍵區域目標及對應的 9 項優先區域活動為指標（圖 2），並由東京局蒐集區域會員國/地區於 2021 至 2023 年期間的相關執行成果進行評估。

（相關網址：<https://rr-asia.woah.org/wp-content/uploads/2023/07/rcap-3rd-regional-work-plan-framework-2021-25.pdf>）

Key Regional Objectives	Related activities
Safe and fair trade	a. Enhance animal disease reporting b. Enhance the application of WOAAH standards and guidelines to facilitate trade, while safeguarding Regional Commission (RC) Members' animal health status
Public Health	a. Contribute to the Global Action Plan on antimicrobial resistance (AMR) b. Contribute to the Wildlife Health Framework
Global food security and safety	a. Contribute to regional initiatives to control TADs in the context of the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs)
Sustainable socio-economic development	a. Monitor and evaluate the performance of Veterinary Services b. Improve the capacity of veterinary laboratories c. Build capacity for preparedness and resilience
Cross-cutting area	a. Strengthen the network of WOAAH Reference Centres and other relevant institutes

圖 2. 本次亞太地區 RWPF 之評估指標

本次納入評估之會員國執行成果，主要依「資訊可及性 (Information/data availability)」及「重點活動 (Priority activities)」等原則擇定，職在本次簡報資料的統計分析工作中，主要負責內容簡述如下：

1. 針對亞太地區之參考實驗室 (Reference Laboratory, RL) 及 Collaborating Centres (CC) 之評估部分：包括統計亞太地區參與 Laboratory Twinning Projects 的數量、規劃或參與 Laboratory Proficiency Testing 的參考實驗室數量、是否為其他 WOAAH 會員籌辦會議、工作坊或訓練課程之參考實驗室或 CC 的數量等，主要係由每年各 RL 及 CC 填報給 WOAAH 之年度問卷資料中 (2022 年問卷範例如參考資料 7、8)，逐筆檢視各單位回報問卷並擷取相關回復內容，再進行相關統計分析。
2. 針對亞太地區會員之應變計畫對外發布情形：本節須上網調查各會員國/地區針對動物疫病或自然災害之防災災害應變計畫和其法源依據等資料，是否公布於其官方網站上，並進行後續統計分析。
本項工作須以不同關鍵字逐一查詢各會員國之官方網站，且因亞太地區會員國多數並非英語系國家，又本區域多數國家不一定將相關資訊公布於其官網英文網頁 (甚至未建置英文版網頁)，故須利用翻譯工具將關鍵字轉換成不同國家語言進行搜尋調查，常須花費大量時間轉換語言搜尋始能查到相關官方公開資料。

東京局針對本次評估結果所得結論及後續建議如下：

1. 亞太地區的會員國均十分活躍，多有落實執行 RWPF 所要求的工作及相關活動。
2. 在 2021 至 2022 年期間，許多活動受到 Covid-19 疫情的影響。

3. 針對本次簡報內容提出下列建議：
 - (1)RWPF 中擇定的部分評估指標項目需再調整。
 - (2)某些數據、執行成果難以取得，故建議：
 - 鼓勵會員在官網上提供更多訊息，例如該國之災害應變計畫。
 - 鼓勵會員與 WOAH 分享相關資訊，例如該國辦理演習之成果。
4. 亞太地區未來的活動，透過以評估指標管考的方式，可具體性地落實 RWPF 的目標。
5. 下次 RWPF 評估報告將於 2025 年發表，且建議：
 - (1)可能需要進一步修改評估指標。
 - (2)與 WOAH 的「Observatory」計畫進一步協作。

參與本次簡報資料分析彙整工作之心得

由本次 WOAH 挑選之 RWPF 評估指標，都能呼應 WOAH 的「TRANSPARENCY」、「STANDARDS」、「EXPERTISE」及「SOLIDARITY」等宗旨。

最初東京局內部先就各評估指標討論可對應之會員國執行成果，再分頭進行相關資料的蒐集、統計及分析。

由 WOAH 指定的評估指標及擇定的對應成果，可窺見東京局重視會員國哪些工作績效項目，主要包括：

1. 各會員國對其國內動物疫情狀況之回報工作（是否依時效及規定通報 WAHIS 系統）；
2. 在國際貿易上能否有效應用 WOAH 規範及指引（WTO notifications related to WOAH Standards）；
3. 會員國對細菌抗藥性（AMR）行動計畫之投入程度（包括行動計畫、預算編列等）；
4. 會員國對國內獸醫服務績效之考核評估（是否曾進行 PVS 評估）；
5. 強化 WOAH 參考實驗室和其他相關機構之橫向聯繫網絡（是否為其他 WOAH 會員籌辦會議、工作坊或訓練課程等交流工作）。

前揭指標均可作為我國未來規劃相關政策或工作計畫之參考方向，俾以提升我國在國際獸醫專業領域之參與度及能見度。

- (三) 由於水產養殖為全球成長最快的食品生產類別，亞太地區在水產養殖之產量產值上均領先全球，然而疫病仍為水產養殖產業的主要威脅。為確保區域水生動物健康狀況之透明度，東京局及 NACA (Network of Aquaculture Centres in Asia-Pacific) 自 2013 年起合作，定期聯合公布區域水生動物疫病報告 (Regional aquatic animal disease report)，以瞭解區域內各國發生水生動物疫病狀況，並掌握各類疾病於亞太地區的分布情形。

職在 Dr. Thitiwan Patanasatienkul 指導下，逐年逐筆檢視各會員國 2013 至 2022 年間提交之資料，並彙整分析作成專題報告「Analysis of the Regional Aquatic Animal Disease Reports」，主要係分析於 2013 至 2022 年間，亞太區域應通報水生動物之疫病種類變化(包含 WOAH-listed 及 Non-WOAH-listed diseases)，及區域內各會員國對其轄區發生水生動物疫病之通報情形等。(2013 及 2022 年會員國報告範例如參考資料 9、10，本次專題報告完整簡報如參考資料 11)

(參考網址：<https://rr-asia.woah.org/en/projects/qaad-reports/>)。

本次資料分析結果如下：

1. 截至 2020 年，亞太地區水產養殖業的產值，約佔全球產值之 8 成，目前亞太地區的主要生產國家為中國大陸、越南及泰國。
2. 經分析 2013 至 2022 年期間通報之疫病種類，魚類疫病種類增加 20% (由 10 種增加為 12 種)，軟體動物疫病種類無增加 (維持 7 種)，甲殼類動物疫病增加 30% (由 10 種增加為 13 種)，兩棲類動物疫病增加 50% (由 2 種增加為 3 種)。其中兩棲類動物疾病主要涉及保育類野生動物疫病控制，較不具產業意義，而對亞太地區水產養殖產業而言，可明顯看出各國逐漸重視對甲殼類動物及魚類之疫病監測及通報。
3. 另分析 2020 至 2022 年間亞太地區國家通報各類水生動物疫病次數，通報比例最高者為甲殼類動物疫病 (49%)，其次為魚類疫病 (25%)，第三為會員其他通報重要疫病 (16%)。
4. 至分析各會員國通報資料狀況，包括區域水生動物疫病報告或 WAHIS 半年報告等數據，如澳洲、臺灣、香港、菲律賓及紐西蘭等國家/地區在兩者之通報表現都較穩定，而柬埔寨、寮國及巴基斯坦等國家在兩者之通報表現則明顯較差，部分國家僅 WAHIS 半年報告之提交情形較好，如日本及韓國。

本次資料分析之心得

1. 甲殼類動物及魚類為亞太地區水產養殖產業之重心，對其相關的疫病監控防治或水生動物之動物用藥管理等將成為區域重點工作，未來我國在相關政策及計畫規劃上亦可納入參考。
2. 透過瞭解各會員國對水生動物疫病通報之表現，WOAH 或東京局將作為未來執行 rumor tracking 等相關計畫之規劃參考，期更能掌握區域之水生動物疫病分布情形。
我國雖非 NACA 會員，然對該組織之疫病通報工作仍表現優秀，如繼續維持相關通報績效，或許有助於爭取加入相關國際組織。

3. 東京局已在規劃向 WOA 總部爭取能否將 WAHIS 與 NACA 之通報系統結合，以減輕會員國須對不同系統通報之負擔，透過此類數據分析掌握會員國對不同系統之通報情形，或許有助於促成相關系統之整合串連。

伍、建議事項

本次赴東京局研習係藉由實質參與其運作，強化我國與該 WOA 及其相關國際組織之往來與業務合作，以拓展、提升我國在國際上之能見度與評價，並擷取他國經驗，以期進一步完善我國動物疫病防疫體系。

一、建議持續派員前往 WOA 拜訪研習

WOA 為獸醫最高國際組織，擁有 183 個會員國，超過 WTO 及 WHO 之會員數。WOA 長期致力於動物疾病防疫、動物福利、會員國獸醫服務提升，與約 75 個國際組織或團體共同合作，針對氣候變遷、One Health、跨境動物傳染病、嚴重特殊傳染性肺炎防疫 (COVID-19) 等全球議題，我國因為外交困境，難以加入大部分國際組織，倘能與 WOA 維持良好穩固互動，持續參與工作坊或會議，亦能有機會與其他國際組織互動，更能習得他國優良策略，持續優化我國 One Health 相關服務體系，確保國人及畜禽健康，維護生產環境並確保糧食安全。

二、建議持續與區域性及全球性之獸醫教育機構/專業組織合作

透過與如亞洲獸醫學校聯盟 (AAVS)、東南亞獸醫學校聯盟 (SEAVSA)、亞太獸醫師協會 (FAVA) 及世界獸醫師協會 (WVA) 等組織密切合作，加強該(次)區域的資訊交流及橫向聯繫工作，進一步的合作及整合，依照 WOA 獸醫教育建議及指引，推動我國獸醫教育課程及 Veterinary paraprofessionals (VPP) 教育與認證等制度之改善，期有效充實我國獸醫服務體系之人力資源。

三、持續依規定通報我國動物疫情，深化與 WOA 及相關國際組織之合作機制

由東京局的 RWPF 簡報及與 NACA 合作之區域水生動物疫病報告，都顯示 WOA 對會員國是否即時通報疫病等相關工作之重視，故建議我國持續依規範落實向 WAHIS 或其他相關即時通報病例之相關工作。

就 WOA 及東京局之立場，疫情通報工作表現穩定優良之會員除能符合 WOA 要求其動物疫情狀態之透明原則外，其實亦能透過 WAHIS 幫助其他資源不足之會員國即時掌握區域動物疫情資訊，且協助有效維持 WAHIS 作為全球疾病監測及早期預警系統之權威性。

四、建議強化與其他國家參考中心交流工作，積極提供相關服務訊息及協助由 WOA 及東京局對 Regional Workplan Framework 擇定之評估指標及擇定成果，可見 WOA 十分鼓勵各會員國之參考中心主動與區域會員國家辦理技術交流、研習及訓練等橫向交流工作，此部分亦可作為我國爾後相關政策及計畫之規劃參考，俾提升我國在獸醫專業領域之國際能見度。

綜上，透過此次在東京局之研習，如同在國際場合展現我國支援及協助國際組織的能力，也提供了由外部檢視我國辦理相關國際活動的機會及挑戰，未來除期待持續相關研習支援活動，也希望藉此構築與國際社會之緊密聯繫，並強化我國動物防檢疫及動物衛生福利等相關能力與服務品質。

伍、誌謝

本次研習工作感謝農業部杜文珍次長及動植物防疫檢疫署各級長官之舉薦及促成，也由衷感謝基隆分署各長官與動物健康科所有同仁之支持與協助，戮力於分署各項動物防檢疫業務的持續推動，並特別感謝董好德分署長一直以來的鼓勵與指導，以及施維祥秘書在職出國期間的鼎力協助。

陸、參考資料

參考資料 1

Sub-regional Meeting for Veterinary Education Establishments (VEEs) and other Stakeholders of Veterinary Workforce Development in East Asia Hokkaido, Japan

AGENDA

Time	Topic	
07:00	Venue set up	
08:30-09:00	Registration	
Opening Session (Hybrid)		
09:00-09:10	Opening Ceremony: Opening remarks by <ul style="list-style-type: none"> - Host country - Host institution - WOA 	<ul style="list-style-type: none"> - Dr Ryuto Hiramatsu, Japan MAFF (on behalf of WOA Delegate of Japan) - Dr Mitsuyoshi Takiguchi, Dean, Faculty of Veterinary Medicine, Hokkaido University - Dr Hirofumi Kugita, WOA Regional Representative for Asia and the Pacific
09:10-09:20	Housekeeping and introduction to the Workshop	WOAH RRAP
9:20-9:40	Interactive session: Identification of priority issues related to veterinary education and veterinary workforce development (WFD) in East Asia	Facilitated by WOA RRAP using Mentimeter

Presentation Session (Hybrid)		
9:40-10:10	Overview and updates on WOAHA's initiatives and activities related to Veterinary WFD Programme, including veterinary education and gender assessment	WOAH WFD video Ms Sonia Fèvre, WOAH HQ Mr Stéphane Renaudin, WOAHA SRR-SEA
10:10-10:40	Member presentation on veterinary education and WFD 1. Chinese Taipei 2. Japan 3. Korea RO	Dr Fang-Chia Chang Dr Koichi Sato & Dr Ryuto Hiramatsu Dr Kichang Lee
10:40-11:00	Group photo Coffee break	
11:00-11:30	Member presentation on veterinary education and WFD (continued) 4. Mongolia 5. PR China 6. Hong Kong SAR	Dr Erdene-Ochir Tseren-Ochir Mr Lushi Liu Dr Vanessa Barrs & Dr Man Wai Esther To
11:30-12:00	Panel discussion: key issues around veterinary education and workforce development (e.g., Gender, One Health)	Moderated by: Dr Mayumi Ishizuka Panelists: Dr Ter-Hsin Chen, Chinese Taipei Dr Masatoshi Hori, Japan Dr Min Su Kim, Korea RO Dr Weihua Li, China Dr Erdene-Ochir Tseren-Ochir, Mongolia

		Dr Venessa Barrs, HK SAR Dr Takehiko Saito, JVMA (FAVA)
12:00-12:25	<p>Updates from VEE networks in the region</p> <ol style="list-style-type: none"> 1. Regional network of VEEs: Asian Association of Veterinary Schools (AAVS) 2. Sub-regional network of VEEs: South-East Asia Veterinary School Association (SEAVSA) 3. Current Situation of VEEs and Connected Regulatory Services in South Asia 	<p>Dr Mohd Azmi Mohd Lila, Universiti Putra Malaysia</p> <p>Dr Khongsak Thiangtum, Kasetsart University</p> <p>Dr Anil Pushpakumara Pupulewatte Gedera, University of Peradeniya</p>
12:25-12:30	Wrap-up of the morning session	WOAH RRAP
12:30 – 13:30	LUNCH	
Discussion Session (Physical participation only)		
13:30-14:30	“Review, Reflect, and Share” - Group discussion on selected topics from the morning session	All
14:30-15:30	“How can we collaborate” – Facilitated discussion on alignment of veterinary education/ training capacity with workforce needs	All
15:30-16:00	Report back of group discussion	WOAH
16:00-16:15	Wrap up and closing	
16:15 – 16:30	Coffee break	
16:30-17:30	Networking sharing session for participants representing Veterinary Services (Government)	VS participants + any interested participants
16:30-18:00	AAVS Executive Committee Meeting	
18:30-20:30	Dinner hosted by WOA	



21st Asian Association of Veterinary Schools (AAVS) Meeting
12-13 September 2023
Hybrid

Event page (for latest information): <http://aavs2023.hokudaivet.info/index.html>

Participants: Deans and faculty members of AAVS Member institutions. The **AAVS Representatives of Member Institutions** or their designees are strongly encouraged to join the Administrative Session.

Registration (required for both face-to-face and remote participation)

Participants should **pre-register for the meeting by 22 August 2023** for physical participation and **by 5 September 2023** for virtual participation.

<http://aavs2023.hokudaivet.info/index.html>

Meeting venue and access:

<http://aavs2023.hokudaivet.info/access.html>

Program overview:

Session title	Date /Time (JST)	Target audience / participants
VER WG Session "1 st Vet Ed Asia"	Sept 12, 9:00-11:00	Faculty Members of AAVS Member Institutions
Hokkaido University Campus Tour	Sept 12, 11:00-12:00	On site participants only
VEE WG Session "VEE Accreditation standards in Asia" including signing ceremony of FAVA-AAVS MoU	Sept 12, 13:00-15:00	Faculty Members of AAVS Member Institutions
Administrative Session	Sept 12, 15:30-17:00	AAVS Representatives (Deans or their designee) of AAVS Member Institutions
2023 T&C (Ise) Award Ceremony and Lectures	Sept 12, 17:00-18:00	Faculty Members of AAVS Member Institutions
AAVS-Hokkaido University One Health Joint Symposium	Sept 13, 9:30-11:30	Faculty Members of AAVS Member Institutions



Provisional program:

Veterinary Education Research (VER) Working Group Session “1st VetEd Asia” (Sept 12, 9:00-11:00 JST)

Moderator:

Dr Hafsa Zaneb, University of Veterinary and Animal Sciences Lahore Pakistan, Chair of AAVS

Veterinary Education Working Group

Approx. time (JST)	Topic	Speaker/Facilitator
09:00-09:15	Opening remarks VER-WG Report	Moderator
09:15-10:30	Research Presentations	
	<ul style="list-style-type: none"> • Veterinary student’s perspectives on the effectiveness of case-based learning - Dr Waraporn Aumarm • Clinical Exposure from Day-1: Time to transform existing DVM curriculum from Flexner Model to an integrated one - Dr Imran Rashid • Development of a low-fidelity sheep caesarean model for veterinary education - Dr Kate J. Flay • Impact of medium of instruction, schooling, gender, and academic grades on sensory modalities of veterinary undergraduate students in Pakistan - Dr Imtiaz Rabbani • The enhancement of veterinary classroom participation by active learning models - Dr Sirirat Rattanapuchpong • Student views on interprofessional education during clinical skills teaching for veterinary and veterinary nurse students - Mrs Susanna Nicola Taylor • Gendered professional identity conceptions held by final year veterinary students of Pakistan - Dr Hafsa Zaneb • Prior exposure to the ‘world-of-work’ inspires Sri Lankan veterinary undergraduates to follow the BVSc. Degree Programme - Dr Lalanthe De Silva • Effects of a digitally enhanced class environment on students’ learning experience in problem-based learning - Dr Ákos Kenéz 	
10:30-10:50	Q & A	Moderator
10:50-11:00	Closing remarks	AAVS Representative

Reference:

VER Webinar: <https://aavs.jp/aa-vs-meetings/aa-vs-meetings-2022/webinar-organized-by-aa-vs-working-group-on-veterinary-education-research-ver-wg/>



Veterinary Education Enhancement (VEE) Working Group Session (Sept 12, 13:00-15:00 JTS)

Moderators:

Dr Fang-Chia Chang, National Taiwan University, AAVS Vice-President, Co-chair of AAVS Working Group

Dr Koichi Sato, Yamaguchi University, Chair of FAVA Subcommittee on Veterinary Education, Chair of FAVA-AAVS Joint Education Committee

Approx. time (JST)	Topic	Speaker/Facilitator
13:00-13:15	Opening remarks	Moderators
13:15-13:30	Veterinary education in Asia (including findings from Survey on D1C and Model curriculum)	Dr Koichi Sato
13:30-14:15	Development and application of Southeast Asia Veterinary School Accreditation Standards	Dr Khongsak Thiangtum, President of Southeast Asia Veterinary School Association (SEAVSA), AAVE EC Member Dr.Prawit Butudom, Secretariat of SEAVSA and AVSBN
14:15-14:45	Discussion - Development of accreditation standards for Asia - AAVS-FAVA collaboration	
14:45-15:00	Signing of FAVA-AAVS MoU	FAVA President AAVS President

References:

- <https://rr-asia.woah.org/en/events/virtual-workshop-on-the-way-forward-of-vees-and-vsbs-in-south-east-asia/>
- <https://aavs.jp.org/aavs-meetings/aavs-meetings-2021/aavs-virtual-symposium-on-accreditation-of-veterinary-schools/>

21st AAVS Meeting of the Assembly: Administrative Session (Sep 12 15:30-17:00 JST)

Approx.	Topic	Speaker/Facilitator
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time (JST)		
15:30	Welcome address	AAVS President
15:35	Meeting agenda	Secretary General
15:40	Report of the 21st Executive Committee Meeting - AAVS Office operation - Executive Committee members - AAVS membership status - Ongoing and proposed AAVS activities	Secretary General
15:55	Financial report	Treasurer
16:00	Introduction of new AAVS Members	Secretary General
16:05	Report from AAVS Working Groups	Working group chairs
16:25	Election of Executive Committee Members	Secretary General
16:40	Open discussion on AAVS activities and any proposed issues from Member Institutions	AAVS President
16:50	Hosting of the 22 nd AAVS Assembly Meeting	Secretary General
16:55	Closing remarks	NEW AAVS President

Award Lectures of Kei-ichiro Maeda Memorial T&C (formally Ise) Award 2023 (Sept 12, 17:00-18:00 JST)

Time	Topic	Speaker
17:00	Introduction of the award and award winners 2023	Takashi Matsuwaki Associate Professor, The University of Tokyo
17:15	Award lectures of the winners 2023 “Healthy People, Healthy Animals: The Power of One Health in Tackling Public Health Threats”	Dr. Ibrahim Elsohaby Assistant Professor, Department of Infectious Diseases and Public Health, Jockey Club of Veterinary Medicine and Life Sciences, City University of Hong Kong
	“Transcriptome-wide studies on mRNA tailing and investigation of stress	Dr. Jaechul Lim Assistant Professor, College of Veterinary



	responses in immune cells”	Medicine, Seoul National University
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One Health Joint Symposium (Sept 13 9:30-11:30JST)

“Joint Symposium of 21st Annual Meeting of the Asian Association of Veterinary Schools (AAVS)
– 11th Sapporo Summer Symposium for One Health (SaSSOH)”

Title: [Good practices of education on One Health](#)

Chair:

Dr. Fang-Chia Chang (National Taiwan Univ., AAVS Vice President)

Dr. Yoshihiro Sakoda (Hokkaido Univ.)

9:30-9:35

Opening remarks: Prof. M. Takiguchi

9:35-10:10 (30 min + 5 min)

<Special lecture>

(to be announced)

10:10-10:45 (30 min + 5 min)

<Plenary Lecture>

Dr. Pham Duc Phuc

Vietnam One Health Network, Vietnam

*“The Role of One Health Workforce Development in Global Health Security:
An Example in Vietnam”*

10:45-11:10 (20 min+ 5min)

Dr. Han Sang Yoo

College of Veterinary Medicine, Seoul National University, Korea

“One Health practices in Veterinary Education in Korea (tentative)”

11:10-11:25 (10 min + 5 min)

Dr. Pondpan Suwanthada

PhD student, Graduate School of Infectious Diseases, Hokkaido University, Japan

“Toward a researcher who can contribute to One Health (tentative)”



11:25-11:30

Closing remarks: Representative of AAVS

PDF files of selected presentations will be uploaded to the event page on the [AAVS website](#) after the meeting.

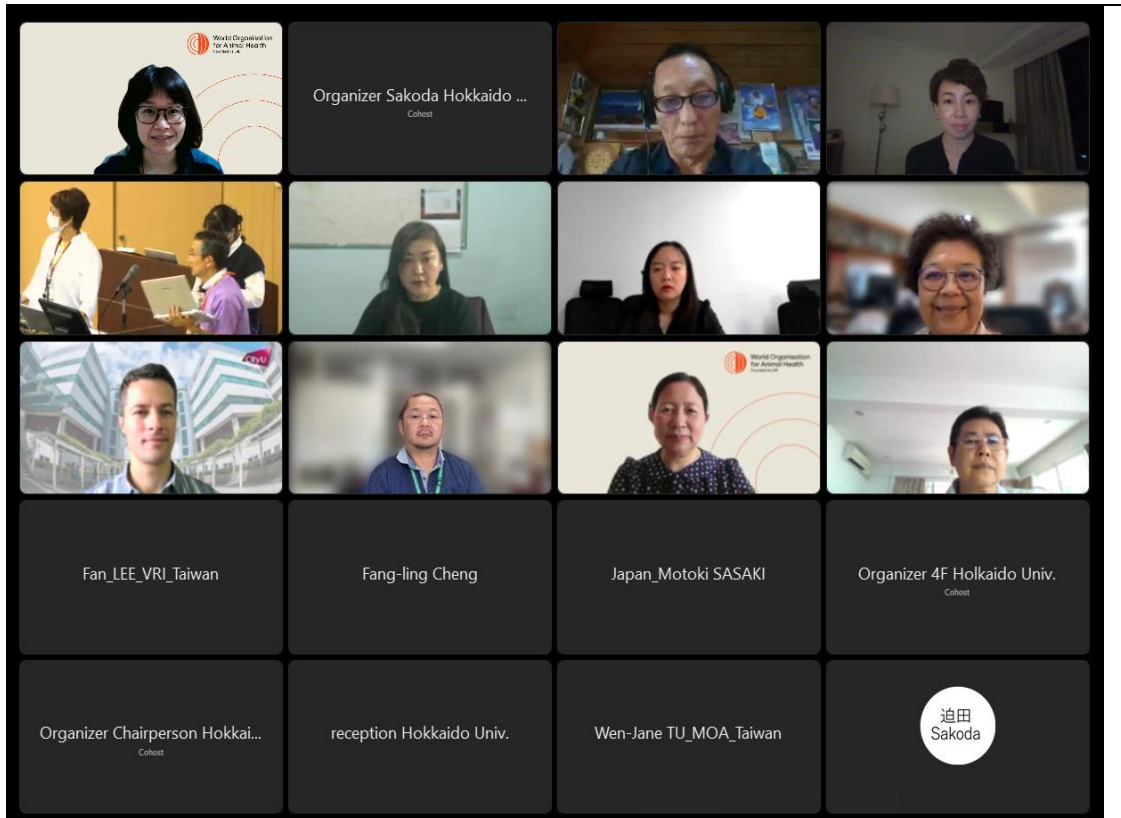
For further information about the event, please contact: secretary@aavs.jpn.org

The AAVS, WOAHA, and Hokkaido University as data controllers, will process your personal data from the registration form for the purposes of organizing this meeting. The data collected will be processed internally for the aforementioned purposes and communicated to the processors in charge of hosting and maintaining the meeting and webinar platform.

Please note that during the meeting the AAVS will take pictures to be published on AAVS website. By appearing on the pictures, you allow the AAVS to fix, reproduce and communicate your image worldwide via its website. If you do not consent to the terms of this photography's rights authorization, you may refrain from appearing on the group picture by disabling your webcam, or inform AAVS Office.

By attending this meeting, you also agree to its video recording by the AAVS to assist in drafting the meeting report and potentially uploading sections of the recorded video on the AAVS website. If you do not consent to the terms of this video recording authorization, you may disable your microphone and camera or refrain from attending the meeting.

參考資料 3







World Organisation for Animal Health
Founded as OIE

SEA Veterinary School (VEE) Accreditation Standards

21st Asian Association of Veterinary Schools (AAVS) Meeting
11-13 September 2023, Hokkaido University, Sapporo, Japan

Assist. Prof. Dr. Prawit Butudom
Associate Dean for Research and International Affairs
Khonkaen University Faculty of Vet Medicine, Thailand
SEAVSA/AVSBN/Ad Hoc Group secretary
Chairperson, Foreign-sub committee, Veterinary Council of Thailand (VCT)



OIE-VSB Twinning Program: AVBC -VCT

World Organisation for Animal Health
Founded as OIE

Collaborative workshop with OIE-VSB Twinning Program AVBC-VCT in 2020



OIE-VSBs Twinning Program:
VCT and AVBC

The 30th ASWGL meeting, 22nd June, 2022, Myanmar

OBJECTIVES:

- I. Develop the capability of the VCT to fully discharge the responsibilities as a VSB
- II. Mentor the VCT the role of promoting the capabilities and aligning the operations of other VSBs within the ASEAN region

Component 1:
Support VCT to become an effective and robust VSB

Component 2:
Support development of the VCT in taking a leading role in development of a regional VSB network



RECOMMENDATIONS



1 – The **AVSBN** could be considered as an **evaluation body** similarly to the AVBC to evaluate on behalf of national VSBs regarding **accreditation of national VEEs, specialist registration and qualifying examinations for foreign graduates.**

The 30th ASWGL meeting, 22nd June, 2022, Myanmar



RECOMMENDATIONS



2 – Curriculum and VEE must meet national standards to be eligible for AVSBN recognition.

3 – ASEAN veterinary mobility should be tied to VEE accreditation and the accreditation needs to be managed and harmonised across AMS to facilitate regional mobility.

4 – **ASEAN VEE accreditation standards** should be established to support improvements in ASEAN veterinary services, enhance the health of animals and the public, protect the safety of food, and promote mobility and trade.

The 30th ASWGL meeting, 22nd June, 2022, Myanmar

The background history of the SEA VEE Accreditation Standards Ad Hoc Group on SEA VEE Accreditation Standards

27 Aug, 1 Sept & 6 Sept 2021- 1st OIE Sub-regional Workshop on VEE Accreditation –*Recommendations:*
- OIE D1C/VCT 11 Stds model/Ad Hoc Gr-SEA VEE Accr Stds

7-8 December 2021 - OIE-SEAVSA Meeting of VEEs in South-East Asia – *Appointed Ad Hoc Gr— Committee*

4th February 2022 – 1st *Ad Hoc Group meeting* on ASEAN VEE Accreditation Standards – Assigned VEEs to do the survey with the OIE D1C and 11 VCT stds

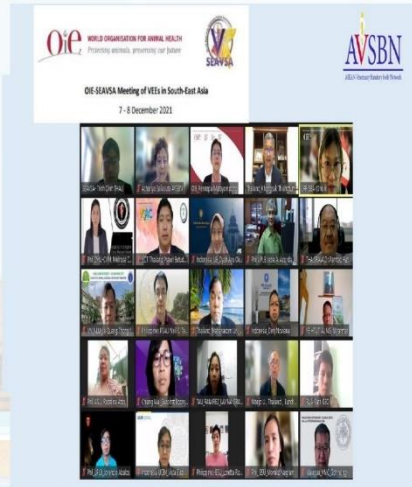
3rd June 2022 – 2nd *Ad Hoc Group meeting* on ASEAN VEE Accreditation Standards – The results of survey with the OIE D1C and 11 VCT stds.

18-19 Oct 2022 – 2nd WOAHA Sub-regional Workshop on VEE Accreditation – *Draft SEA Vet School Accr Standards*

16 March 2023 – 4th *Ad Hoc Group meeting (finalize SEA Vet Accr Standards)*

ASEAN VEEs Accreditation Body, ASVAB Platform

6 December 2023 – *SEAVSA meeting, Chiang Mai, Thailand*



Ad Hoc Group Meeting

The Ad Hoc Group comprise of the VEE and VSB representatives from ASEAN country

Objectives: **to draft the details of the ASEAN VEE accreditation standards (VCT 11 Std & D1C) and the role and responsibility of the ASEAN VEE accreditation body.**

4th February 2022 – 1st *Ad Hoc Group meeting*

- the Ad Hoc Group secretariat circulate the survey form with *the OIE Day 1 Competencies and 11 VEE accreditation standards of the VCT* to the representatives of ASEAN country for consideration and discussion in the country

1. In addition to the OIE Day 1 Competencies, please indicate what are the other competencies required for Day 1 veterinary graduates in your country.
2. Please indicate if the following VEE accreditation standards can be applied to the VEEs in your country. (Ref: The 11 VEE accreditation standards of the VCT)
3. Please indicate if any additional standards beyond the ones above are required
4. Other comments



Prof. Dr. Achariya Sailasuta
Chair-Ad Hoc Group



Ad Hoc Group Meeting

3rd June 2022 – 2nd Ad Hoc Group meeting

- presented the survey for the development of ASEAN VEE Accreditation Standards from each country had been discussed
- Based on the survey and discussions, all committee agreed to use VCT 11 standards as a model and **have only One Health** adding on the OIE D1C.
- the VCT 11 standards was sent to all committees for review before the next meeting



18-19 Oct 2022 – 2nd WOH Sub-regional Workshop on VEE Accreditation

- *Draft SEA VEE Accr Standards was finished and circulated to each country to make comment or suggestion*



16 March 2023 – 4th Ad Hoc Group meeting (finalized SEA VEE Accr Standards)

SEA Veterinary School Accreditation Standards

Standards	Progressive standards
1. Institution	Level 1: WOH D1C
2. Finance	Level 2: Developing VEE
3. Admissions	Level 3: Recognized VEE
4. Students and Resources	Level 4: Established VEE
5. Curriculum	
6. Assessment and Progression	
7. Teaching facilities	
8. Animal resources	
9. Faculty and support staff	
10. Research	
11. Quality assurance and outcome assessment	

Standard 1: Institution
Recognised Institution

The VEE must be a major administrative division of a university or institute guaranteed or accredited by the national accrediting body.

The VEE and its veterinary program must have the same recognition, status and autonomy as the other professional schools and programs of the university.

The Dean, Head or Principal must be able to obtain and direct sufficient resources for the veterinary program.

Veterinary professional and ethical oversight and mission

The Dean, Head or Principal or Vice Dean must be a locally registered veterinarian in the context of administration of the VEE.

The faculty member responsible for the professional, ethical and academic conduct of the school's clinical teaching hospital(s) must be a locally registered veterinarian. Where a distributed teaching model is used for clinical education, a faculty member who is a locally registered veterinarian must have oversight of all clinical education provided.

The VEE must have a strategic plan and an operating plan that address its mission and goals, and must present evidence that these plans are being followed.

The VEE must explicitly state its intention to produce professional veterinarians with qualifications that meet the requirement for domestic registration and who have attained the Day One competencies of the WOADH.

Organisational structure, accountability and stakeholder involvement

The governance and management systems of the VEE must support its educational aims.

The VEE must be able to demonstrate that the management systems are effective.

There must be adequate documentation for all committees and delegated authorities, of their composition, terms of reference, powers, reporting relationships, representation of relevant groups and decisions.

The organisational structure of the VEE must ensure that staff, students and key stakeholder groups have the opportunity to contribute to the school's direction and decision-making processes.

The VEE must have effective plans and processes in place for identification and removal of risks. It must provide evidence that it quickly and effectively manages concerns about, or risks to, the quality of any aspect of the veterinary program.

Criterion	Compliance
Recognised Institution	
The VEE must be a major administrative division of a university or institute guaranteed by the domestic HEA. University and/or VEE must be licensed by HEA/Ministry of Agriculture before applying for accreditation.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The VEE and its veterinary program have the same recognition, status and autonomy as the other professional schools and programs of the university.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The Dean, Head or Principal is able to obtain and direct sufficient resources for the veterinary program.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Veterinary professional and ethical oversight and mission	
The Dean, Head or Principal or Vice Dean must be a locally registered veterinarian in the context of administration of the VEE.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The faculty member responsible for the professional, ethical and academic conduct of the school's clinical teaching hospital(s) is a locally registered veterinarian. Where a distributed teaching model is used for clinical education, a faculty member who is a locally registered veterinarian has oversight of all clinical education provided.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The VEE has a strategic plan and an operating plan that address its mission and goals in place and are followed.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The VEE explicitly states its intention to produce professional veterinarians with qualifications that meet the requirement for domestic registration and who have attained the Day One competencies of the WOADH.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Organisational structure, accountability and stakeholder involvement	
The governance and management systems support its educational aims.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The VEE must be able to demonstrate that the management systems are effective.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
There must be adequate documentation for all committees and delegated authorities, of their composition, terms of reference, powers, reporting relationships, representation of relevant groups and decisions.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The organisational structure of the VEE must ensure that staff, students and key stakeholder groups have the opportunity to contribute to the school's direction and decision making processes.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The school has effective plans and processes in place for identification and removal of risks. Evidence is provided that the school quickly and effectively manages concerns about, or risks to, the quality of any aspect of the veterinary program.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Overall, can the college be said to be in compliance with Standard 1?	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Standard 2: Finance

Finances and financial management expertise must be demonstrably adequate to sustain the veterinary educational program and implement the veterinary school's mission.

The VEE and university must provide reasonable evidence that finances to sustain the veterinary program are secure for one cycle of the veterinary program. This includes funds to:

- Enable effective recruitment, retention, remuneration, and development of faculty, administrators and support staff.
- Enable innovation in education, research and other scholarly activities, and clinical practice
- Measure, record, analyse, document, and distribute assessment and evaluation activities
- Ensure an adequate quantity and quality of intramural clinical services.
- Ensure an adequate quantity and quality of extramural placement sites.

The VEE must be able to acquire sufficient funds for the construction, acquisition, improvement and maintenance of buildings and equipment and other educational, clinical and research resources.

The ability of the VEE to deliver its veterinary program must not be adversely affected by any other degree programs that it provides.

Clinical services, field services, and teaching hospitals function as instructional resources.

Instructional integrity of clinical resources takes priority over income generation for clinical service operations.

Criterion	Compliance
Finances and financial management: expertise must be demonstrably adequate to sustain the veterinary educational program and implement the veterinary VEE's mission.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The VEE and university provide reasonable evidence that finances to sustain the veterinary program are secure for one cycle of the veterinary program. This includes funds to:	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
• Enable effective recruitment, retention, remuneration, and development of faculty, administrators and support staff.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
• Enable innovation in education, research and other scholarly activities, and clinical practice	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
• Measure, record, analyse, document, and distribute assessment and evaluation activities	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
• Ensure an adequate quantity and quality of intramural clinical services.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
• Ensure an adequate quantity and quality of extramural placement sites.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The VEE must be able to acquire sufficient funds for the construction, acquisition, improvement and maintenance of buildings and equipment and other educational, clinical and research resources.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The ability of the school to deliver its veterinary program is not adversely affected by any other degree programs that it provides.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Clinical services, field services, and teaching hospitals function as instructional resources.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The instructional integrity of clinical resources takes priority over income generation for clinical service operations.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Overall, can the college be said to be in compliance with Standard 2?	YES MD NO <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Standard 3: Admissions

Management

The VEE must have a well-defined and officially stated admissions policy and a process that ensures the fair and consistent assessment of applicants.

The VEE must have an admissions committee, a majority of whom must be full-time faculty members, which

- determines the criteria for admission to the program
- considers the applications for admission and makes recommendations regarding the students who are to be admitted
- regularly reviews selection processes and attrition rate to ensure they are appropriate for students to successfully complete the program.

receives/provides adequate training (including periodic refresher training) for those involved in the selection process. The number of students admitted must be consistent with the physical, financial, teaching and animal resources available to the VEE.

Selection criteria

The student selection criteria must be consistent with the mission of the VEE.

The selection criteria must be clearly defined, consistent, defensible and free of discrimination or bias (except where explicit affirmative action in favour of nominated equity and diversity groups is used).



Criterion	Compliance
Management	
The VEE must have a well-defined and officially stated admissions policy and a process that ensures a fair and consistent assessment of applicants.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The VEE must have an admissions committee, the majority of whom are full-time faculty members.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The admissions committee	
determines the criteria for admission to the program	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
considers the applications for admission and makes recommendations regarding the students who are to be admitted	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
regularly reviews selection processes and attrition rate to ensure they are appropriate for students to successfully complete the program.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
receives/provides adequate training (including periodic refresher training) for those involved in the selection process.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The number of students admitted must be consistent with the physical, financial, teaching and animal resources available to the VEE.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Selection Criteria	
The student selection criteria must be consistent with the mission of the VEE.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The selection criteria must be clearly defined, consistent, defensible and free of discrimination or bias (except where explicit affirmative action in favour of nominated equity and diversity groups is used).	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Academic performance criteria indicate reasonable potential for successful completion of the professional curriculum.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Factors other than academic performance must be considered for admission criteria.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Clear processes must be in place to manage applications to provide credit for prior learning, and there are mechanisms for applicants who have higher qualification than high VEE graduation to be admitted directly into an appropriate stage of the program.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
For post-bachelor veterinary professional programs, the prerequisites for entry to the veterinary program provide foundational biological sciences upon which the professional education can be built.	NA <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
There must be clear policies and procedures as to how applicants with disabilities or illness will be considered and, if appropriate, accommodated.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Provision of information	
An accurate description of the admissions process and selection criteria must be published and readily available to potential students.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Potential students must be advised of the demands of the veterinary course and requirements of veterinary registration boards for fitness to practise.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The school must have effective policies for managing appeals against admissions decisions, and these are transparent and publicly available.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Overall, can the school be said to comply with Standard 3?	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Standard 4: Learning resources and student support

Learning resources

Students and Faculty (staff) must have adequate, timely, access to information resources (including books, periodicals, electronic databases and internet-based), and have computer or mobile access to these resources on and off campus.

The library must comply with domestic national accrediting body requirements, as appropriate.

Qualified professionals must support the library, learning and information resources of the VEE and contribute to the information literacy curriculum.

Students must have access to sufficient and well-managed resources to support the development of cognitive and procedural skills including (but not limited to) models, mannequins, simulators, instructional media and other educational aids, educational design and teaching expertise.

VEE must conduct effective assessment to ensure that students have competence in animal handling before commencing workplace learning and clinical work.



Criterion	Compliance
Learning resources	
Students and Faculty (staff) have adequate, timely, access to information resources (including books, periodicals, electronic databases and internet-based), and have computer or mobile access to these resources on and off campus.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The library must comply with domestic Higher Education Authority requirements, as appropriate.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Qualified professionals support the library, learning and information resources of the School and contribute to the information literacy curriculum.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Students have access to sufficient and well-managed resources to support the development of cognitive and procedural skills including (but not limited to) models, mannequins, simulators, instructional media and other educational aids, educational design and teaching expertise.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Management of learning	
Students must have unimpeded access to coursework materials through a well-organized, comprehensive learning management system.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The VEE must foster innovation in pedagogy and development of learning resources, and evaluates the outcomes of innovation.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The VEE ensures all students are engaged and supported in developing their skills in accessing, evaluating and using diverse sources of veterinary information.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Student wellbeing: students needs are met for	
Students' physical, social, mental health and welfare needs must be met. This includes, but is not limited to, counselling services, careers preparation, service and advice, and fair and transparent processes for dealing with student harassment, illness, impairment and disability during the program.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Learning support services are provided that are appropriate to the needs to students at various levels of the program.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Reasonable provision must be provided for students with appropriately documented adverse circumstances and for disabled students; appropriate support must be available for students from nominated equity and diversity groups, consistent with all relevant disability, discrimination and/or human rights legislation. Provision of medical evidence for the disabilities and for its management is required.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Effective mechanisms must be in place for students to convey their needs, wants and grievances to the VEE; and the VEE must be able to demonstrate appropriate response and resolution of legitimate needs, wants and grievances.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
There must be a mechanism by which students can provide anonymous suggestions, comments and complaints regarding the VEE's compliance with the accreditation standards, and these are reported annually.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Overall, can the college be said to be in compliance with Standard 4?	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Standard 5: Curriculum

Program structure

The program must extend over at least 5 years for a Bachelor's degree or over at least 4 years for a post-Bachelor's degree. If the high school science syllabus is inadequate to support students' learning in the veterinary program, there must be an appropriate pre-veterinary course to cover such deficiencies.

The program must be at least 40% clinical instruction time and at least one year of full-time study of clinical rotations.

Significant changes to program or course structure must be approved by the domestic approval process, and be ratified by local veterinary statutory body or equivalent.

The program as a whole must be reviewed at least every cycle of the program.

Program contents

Pre-Veterinary courses must be provided (e.g. general education, which include social science, humanities, sciences, and mathematics) as required by the domestic Higher Education Commission.

The curriculum must be constructed to ensure that each and every graduates demonstrate:

- Day One competencies (which include the WAOH Day One competencies) appropriate to the needs of the national veterinary profession.
- The ability to safely handle animals of the common domestic species (including poultry and aquaculture where these species are of domestic importance);
- The ability to recognise and advise on normal animal welfare, husbandry, production and management;
- The ability to provide entry-level extension advice in animal health and husbandry;
- Knowledge of the structure, function and homeostasis, pathophysiology and mechanisms of disease, and the natural history and clinical manifestations of important animal diseases.



Criterion	Y	MD	N
A system for assessment of teaching staff must be in operation. It must include student participation. Results must be available to those undertaking external reviews and commented upon in reports.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
All courses must be adequately provided with teachers, facilities, access to animals, learning resources and consumables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Group sizes must be compatible with effective teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Program contents			
Pre-Veterinary courses must be provided (e.g. in general education, which include social science, humanities, sciences, and mathematics) where and as required by the domestic Higher Education Commission.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The curriculum must be constructed in manner to ensure that each and every graduates achieve			
Day One competencies (which include the WAOH Day One competencies) appropriate to the needs of the national veterinary profession.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The ability to safely handle animals of the common domestic species (including poultry and aquaculture where these species are of domestic importance).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The ability to recognise and advise on normal animal welfare, husbandry, production and management;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The ability to provide entry-level extension advice in animal health and husbandry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Knowledge of the structure, function and homeostasis, pathophysiology and mechanisms of disease, and the natural history and clinical manifestations of important animal diseases.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Entry-level skills in physical examination, patient care, medicine, surgery, therapeutics and anaesthesia, diagnostic imaging and laboratory diagnostic techniques and interpretation, applicable to a broad range of individual and populations of animals of common species.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Entry level skills relating to disease prevention and management: epidemiology, preventative medicine, animal welfare, risk analysis, management of contagious and zoonotic disease (including food borne diseases), food safety and hygiene, management of the interrelationship of animals and the environment, transboundary animal diseases, new and emerging diseases, principles of One Health;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Entry level skills relating to regulatory frameworks and organisation of veterinary services: including communications, administrative and management skills, veterinary legislation and ethics, regulation of animals and animal products, inspection and certification procedures, international trade frameworks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clinical, epidemiological, pathophysiological, biosecurity, surveillance and regulatory skills in management of zoonotic and exotic animal diseases which are of local, international and/or emerging importance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Professional skills in communication, ethics, problem solving, critical thinking, evidence-based decision making, data and information management, using relevant information technology, the financial basis of veterinary practice, and self-management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Standard 6 - Assessment and progression

Management

There must be a clearly identified structure within the VEE showing lines of responsibility for the assessment strategy to ensure coherence and effectiveness of the overall assessment regime.

Decisions on whether students can progress and ultimately graduate must be based on appropriate assessment of the competence required of a veterinary professional.

There must be processes for monitoring attrition rate to ensure the quality of admission and assessment procedures.

The basis for decisions on academic progression must be explicit and readily available to students.

The process for exclusion of students should be explicit.

Policies for managing appeals against assessment outcomes and/or progression decisions must be transparent and publicly available.

Policy and Regulation

The assessment tasks, weighting and grading criteria for each unit of study in the program must be clearly identified, and available to students at the start of the semester.

Assessment load must be planned and managed to achieve appropriate workloads for students and staff.

Requirements to pass including the effect of barrier assessments must be explicit.

The VEE must have a process in place to review assessment outcomes and to change assessment strategies when required.

Assessment methods and design

The assessment regime, including assessment policies, methods, standards and quality assurance, must ensure all graduates demonstrate competence in the broad range of professional and technical skills, knowledge, and attributes required for admission to the veterinary profession.

Assessment strategies must allow the VEE to certify student achievement of learning objectives at the level of the program and individual units of study.

Assessment tasks must align with course and subject learning objectives and learning activities.

Direct assessment of clinical skills (some of which may be on simulated patients), must form a significant component* of the overall process of assessment in the clinical disciplines.

*Direct Assessment may include structured clinical assessments such as OSCE, and must include direct observation of students during their individual work with clinical cases.



Criterion	Y	MD	N
Management			
There must be a clearly identified structure within the VEE showing lines of responsibility for the assessment strategy to ensure coherence and effectiveness of the overall assessment regime.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Decisions on whether students can progress and ultimately graduate must be based on appropriate assessment of the competence required of a veterinary professional.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
There must be processes for monitoring attrition rate to ensure the quality of admission and assessment procedures.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The basis for decisions on academic progression must be explicit and readily available to students.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The process for exclusion of students should be explicit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Policy and regulations			
The assessment tasks, weighting and grading criteria for each unit of study in the program must be clearly identified, and available to students at the start of the semester.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assessment load must be planned and managed to achieve appropriate workloads for students and staff.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Requirements to pass including the effect of barrier assessments must be explicit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The VEE must have a process in place to review assessment outcomes and to change assessment strategies when required.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assessment methods and design			
The assessment regime, including assessment policies, methods, standards and quality assurance, must ensure all graduates demonstrate competence in the broad range of professional and technical skills, knowledge, and attributes required for admission to the veterinary profession.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assessment strategies must allow the VEE to certify student achievement of learning objectives at the level of the program and individual units of study.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assessment tasks must align with course and subject learning objectives and learning activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Direct assessment of clinical skills (some of which may be on simulated patients), must form a significant component* of the overall process of assessment in the clinical disciplines.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Standard 7: Teaching facilities

All aspects of the physical facilities must provide an environment conducive to learning.

Teaching facilities must be well maintained.

The university has a clear strategy and program for maintaining and upgrading its buildings and equipment.

Animal facilities

Apparently healthy animals of the main domestic species must be available for instructional purposes. These may be provided by the VEE itself, or via arrangements with external providers.

Numbers of animals must be appropriate for the numbers of students enrolled in the program.

Whether provided by the VEE or by external providers, livestock facilities, animal housing, and animal equipment must:

- Be appropriate for the species,
- Promote best husbandry, welfare and management practices,
- Be compatible with students' learning, including observation and handling of the species,
- Be of a high standard and be well maintained,
- Ensure relevant biosecurity and biocontainment standards.

Clinical facilities

Veterinary teaching hospitals, which may be on campus, off campus or privately owned, must be clean, maintained in good repair, and are adequate in number, size and equipment for the instructional purposes intended and the number of students enrolled.

VEE must provide ambulatory clinical service, for at least locally common livestock species.

The VEE must ensure students have access to a broad range of diagnostic and therapeutic facilities, including but not limited to: pharmacy, diagnostic imaging, anaesthesia, clinical pathology, intensive/critical care, surgeries and treatment facilities, ambulatory services and necropsy facilities.

Veterinary teaching hospitals must have a sufficient number of veterinarians to provide continuity of clinical service, and comply with all other regulatory/licencing requirements for operation.



Criterion	Compliance
All aspects of the physical facilities must provide an environment conducive to learning.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Teaching facilities must be well maintained.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The university must have a clear strategy and program for maintaining and upgrading its buildings and equipment.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Premises in general	
Lecture theatres, teaching laboratories, tutorial rooms and other teaching spaces must be adequate in number and size and equipped for the instructional purposes.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Practical and laboratory teaching spaces must be provided for all courses within the program, including (but not limited to) anatomy, microbiology, pathology, clinical pathology and clinical skills.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The VEE must provide students with ready access to adequate study, recreation, locker and food services facilities.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Offices, teaching preparation and research laboratories must be sufficient for the needs of the academic and support staff.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Facilities must comply with all relevant legislation including health, safety, biosecurity and animal care standards.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Animal facilities	
Normal animals of the main domestic species must be available for instructional purposes either by the VEE or via arrangements with external providers.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Numbers of animals must be appropriate for the numbers of students enrolled in the program.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Whether provided by the VEE or by external providers, livestock facilities, animal housing, and animal equipment must be:	
Appropriate for the species	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Consistent with best husbandry, welfare and management practices	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Compatible with students' learning, including observation and handling of the species	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Of a high standard and well maintained	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Consistent with relevant biosecurity and biocontainment standards	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Effective mechanisms must be in place to maintain the welfare of animals used for student instruction.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The VEE must be demonstrated that students are competent in animal handling prior to workplace learning and clinical instruction before commencing these activities.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Evidence must be provided of stable or contractual relationships with external providers.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Clinical facilities	

Standard 8: Animal resources

A sufficient number and variety of normal and diseased animals of the common species that pertain to the relevant AMS required to achieve the school's mission are available for pre-clinical and clinical instruction.

Animals used for practical teaching to develop students' competence in handling and knowledge of husbandry, behaviour and production systems must be sufficient in number and their use must follow the appropriate guidelines for the use of animals for teaching.

Appropriate access to exotic species and wildlife is provided

There must be an appropriate supply of cadavers and necropsy material for instructional purposes, and of material (including access to abattoirs) to develop expertise in food hygiene and veterinary public health.

The caseload must be of adequate quality, quantity and diversity, through intramural or external contracted placements, for high quality clinical instruction. These animals include:

- Hospitalised patients, outpatients, medical and surgical cases, nursing procedures
- Field service/ambulatory clinic patients and herd health/production medicine cases in which there are multiple opportunities to obtain clinical experience under field conditions

VEE must provide access to herds or flocks of teaching animals of the main food producing animal species either through the university's own facilities or through right-of-use arrangements at readily accessible premises



Criterion	Compliance
The VEE must have identified clinical skills consistent with WDAH Day One competencies and Programme Objectives, and developed competency statements that define the level of achievement expected of graduates for entry level veterinary practice.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
A sufficient number and variety of normal and diseased animals of the common species that pertain to the relevant AMS required to achieve the school's mission are available for pre-clinical and clinical instruction.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Animals for the development of students' competence in handling and knowledge of their husbandry, behaviour and production systems	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Cadavers and necropsy material	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Material to develop expertise in food hygiene and veterinary public health	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Access to abattoirs	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Hospitalised patients, outpatients, primary care patients, medical and surgical cases, nursing procedures	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Field service/ambulatory clinic patients and herd health/production medicine cases in which there are multiple opportunities to obtain clinical experience under field conditions	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Appropriate access to exotic species and wildlife is provided	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
VEE must provide access to herds or flocks of teaching animals of the main food producing animal species either through the university's own facilities or through right-of-use arrangements at readily accessible premises.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
VEE must conduct effective assessment to ensure that students have competence in animal handling before commencing workplace learning and clinical work.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Veterinary teaching hospital facilities must be provided: either through on-campus hospitals or through formal affiliation with one or more off-campus veterinary hospitals	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Clinical instruction must embody depth, breadth, rigour, intellectual challenge and problem solving.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Clinical instruction must provide students with knowledge skills, professional attributes and learning strategies to prepare them for entry level practice	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Students must be actively involved in all aspects of case management, including client communication, medical records, diagnosis, treatment, financial and ethical aspects of practice.	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Clinical teaching staff have evidence of advanced standing within the profession	Y MID N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Standard 9: Faculty and support staff

Numbers and qualifications of staff

The numbers and qualifications of **faculty members and support staff** in each functional area are sufficient to deliver the educational program and fulfill the mission of the VEE.

There should be at least 1 faculty member for each 8 enrolled students, lesser ratio may be allowed according to the level of VEEs progression.

Faculty must be appropriately qualified according to the level of VEEs progressions (*Note for developing VEEs only; According to context, adjuncts, invited instructors, or part-time faculty may be fractional counted)

- At least 75% of faculty who teach veterinary students must have veterinary degrees.
- At least 25% of faculty in schools that have been established for ≥10 and ≤20 years must have a PhD or equivalent
- At least 40% of faculty in VEEs that have been established for >20 years must have doctorates.
- Clinical teaching staff should have evidence of advanced standing within the profession including advanced clinical qualifications, extensive and current experience relevant to their discipline, and teaching expertise.

Clinical staff must be registered and able to provide evidence of appropriate continuing professional development, e.g. higher degrees, boards, passing the national licensure examination or accreditation or continuing professional development.

Ratio of support staff person per academic faculty must comply to level of VEEs progression (fractional contribution of the staff outside VEEs may be counted according to context). These include:

- Sufficient and appropriately qualified technical staff to provide satisfactory support of all teaching and learning activities
- Sufficient and appropriately qualified administrative staff to provide satisfactory support of teaching activities and provide administrative support that complies with university and external requirements.

Staff management

Faculty must have a managed workload of teaching, research and service; and they must have reasonable opportunity and resources for participation in scholarly activities.

All appointments must offer the security and benefits necessary to maintain stability, morale, continuity, and competence of faculty and support staff.

All staff who participate in teaching must display competence and effective teaching skills. In this context 'staff' includes all including full- or part-time faculty, support staff, residents, interns and postgraduate students, adjuncts or off-campus contracted teachers.



Criterion	Compliance
Numbers and qualifications of staff	
The total number, qualifications and teaching skills of faculty and support staff are sufficient and appropriate to deliver the educational program and fulfill the VEE's mission.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
There should be at least 1 faculty member for each 8 enrolled students, lesser ratio may be allowed according to the level of VEEs progression.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Faculty must be appropriately qualified according to level of VEEs	
75% of faculty have veterinary degrees.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
At least 25% of faculty in VEEs that have been established for ≥10 and ≤20 years have a PhD or equivalent.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
At least 40% of faculty in VEEs that have been established for >20 years have doctorates.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Clinical teaching staff should have evidence of advanced standing within the profession including advanced clinical qualifications, extensive and current experience relevant to their discipline, and teaching expertise.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Clinical staff must be registered and able to provide evidence of appropriate continuing professional development, e.g. higher degrees, boards, or CPD.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Ratio of support staff person per academic faculty must comply to level of VEEs. (fractional contribution of the staff outside VEEs may be counted according to context)	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Sufficient and appropriately qualified technical staff to provide satisfactory support of all teaching and learning activities: a minimum of	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Sufficient and appropriately qualified administrative staff to provide satisfactory support of teaching activities and provide administrative support that complies with university and external requirements.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Staff management	
Faculty have a managed workload of teaching, research and service; and reasonable opportunity and resources for participation in scholarly activities.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
All appointments offer the security and benefits necessary to maintain stability, morale, continuity, and competence of the faculty and support staff	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
All staff who participate in teaching display competence and effective teaching skills.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Well-defined and comprehensive program for the professional growth and development of all staff, including an effective program for staff development in tertiary teaching theory/practice. Formal appraisal and informal mentoring procedures, especially for junior staff.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Promotion criteria are clear and explicit, and place due emphasis on teaching, research, service and other scholarly activities.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Overall, can the college be said to be in compliance with Standard 9?	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Standard 10: Research and Continuing and Higher Degree Education

The VEE must maintain substantial, quality research activities, and scholarly productivity, consistent with the VEE's mission and goals.

The VEE's research activities must integrate with and strengthen the veterinary program and provide opportunities for student participation in ongoing research.

For established VEE, All students must receive training in the principles and application of research methods, critical appraisal of research findings and the application of research in veterinary medicine and animal health.

The VEE must be able to continuously provide advanced postgraduate degree programs. For established VEE, Research programs, facilities and expertise must be adequate for the level of student participation.

The VEE must be able to provide, accordingly to the level of VEE, continuing education programs that are relevant to the needs of the profession and the community.



Criterion	Compliance
Research activity	
The VEE maintains substantial, quality research activities, and scholarly productivity, consistent with the VEE's mission and goals	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Objective metrics indicate substantial, high quality level of faculty research activity, for example:	
Number of individual faculty members within each department involved in research (total research FTE)	YES NO <input type="checkbox"/> <input type="checkbox"/>
Number of publications in refereed scientific journals, book chapters, case-reports	YES NO <input type="checkbox"/> <input type="checkbox"/>
Regular participation and presentation of original research in scientific meetings, poster sessions, publication of abstracts	YES NO <input type="checkbox"/> <input type="checkbox"/>
Involvement in external research panels, commissions, and advisory or editorial boards	YES NO <input type="checkbox"/> <input type="checkbox"/>
Number and amount of competitive, extramural research funding	YES NO <input type="checkbox"/> <input type="checkbox"/>
National and international research awards received	YES NO <input type="checkbox"/> <input type="checkbox"/>
Research-teaching nexus	
The VEE's research activities must integrate with and strengthen the veterinary program and provide opportunities for student participation in ongoing research. DVM program learning objectives demonstrate emphasis on which of the following:	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Acquisition and evaluation of scientific literature	YES NO <input type="checkbox"/> <input type="checkbox"/>
Experimental and non-experimental research design	YES NO <input type="checkbox"/> <input type="checkbox"/>
Critical analysis of data	YES NO <input type="checkbox"/> <input type="checkbox"/>
Scientific writing.	YES NO <input type="checkbox"/> <input type="checkbox"/>
All students must receive training in the principles and application of research methods, critical appraisal of research findings and the application of research in veterinary medicine and animal health.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Students are trained in scientific method and research techniques relevant to evidence-based veterinary medicine.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Students have had opportunities to do which of the following:	
Write research proposals	YES NO <input type="checkbox"/> <input type="checkbox"/>
Submit manuscripts for publication	YES NO <input type="checkbox"/> <input type="checkbox"/>
Hands-on experience in bench, clinical, or field research	YES NO <input type="checkbox"/> <input type="checkbox"/>

Standard 11: Quality Assurance and Outcomes Assessment
11.1 Institution Outcomes

The Institution must have mechanisms demonstrate that institutional and educational objectives are being met. The school must provide evidence that:

- its mission is being achieved;
- its strategic goals are appropriate;
- it is making progress towards achieving those goals.

11.2 Quality of instruction

Effective, on-going, internal quality assurance processes for management of the quality of instruction in the veterinary program must be in place.

Effective processes are in place to ensure that the program is resourced at the level required for the delivery of the school's mission/program learning outcomes

11.3 Student Outcomes

Evidence must be provided that all veterinary graduates have (or for a new school, will have) achieved the level of competence required of an entry-level veterinarian, in terms of:

- Entry level clinical skills
- WOAH Day One competencies
- Program learning outcomes

Direct observation to assess student competence in relevant skills must be used widely, supported by timely documentation and effective processes to ensure inadequate student performance is remediated before graduation.

Graduate pass rates in national registration qualifying examination must exceed 85%.

If the school has yet to produce graduates, evidence must be presented to provide the national accredited body with reasonable assurance that the school's program outcomes will be achieved.

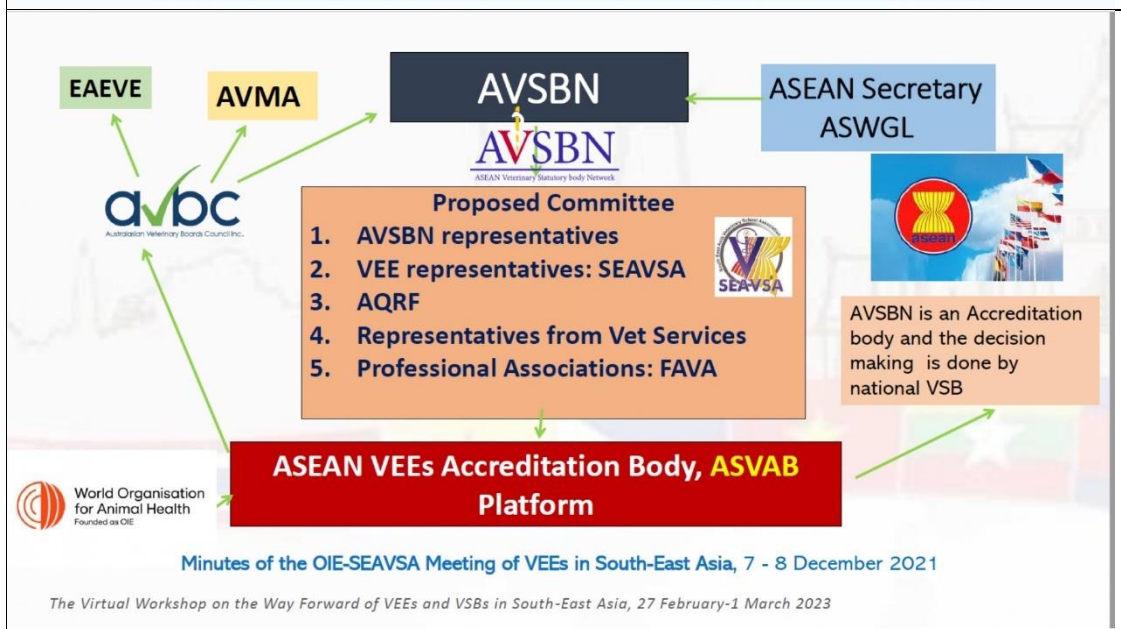
OIE Day 1 competencies	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Direct observation to assess student competence in relevant skills is used widely, supported by timely documentation and effective processes to ensure inadequate student performance is remediated before graduation	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
If the school has yet to produce graduates, there is evidence to provide the TVC with reasonable assurance that the school's program outcomes will be achieved.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> N/A <input type="checkbox"/>
The School has mechanisms in place to monitor attrition and progression on an annual basis, and be able to identify and rectify problems (including selection criteria) as required.	Y MD N <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Overall, can the college be said to be in compliance with Standard 11?	

Progressive standards

Level	D1C	Standards	Faculty and support staff
1. WOAH D1C	✓ Coverage/Competence <i>Specific stds</i> -adequate > 4 topics/moderate competencies <i>Advanced stds</i> ; limited/not competent	4 standards Curriculum/Teaching facilities/Faculty & Staff/Animal resources	- Faculty-Staff enough to fulfil VEE mission - At least 50% of faculty, including invited lecturers, adjunct professor and visiting professor, etc., have a veterinary degree. - At least 10% of faculty have a PhD or equivalent - Clinical faculty and other clinical teachers must be veterinarians - There must be support staff.
2. Developing VEE	✓ <i>Specific stds</i> -adequate/moderate competencies <i>Advanced stds</i> ; limited/basic	10 standards, <i>not included Research</i>	- 1:20 - At least 50% of faculty have a veterinary degree - At least 25% of faculty have a PhD or equivalent - Clinical faculty and other clinical teachers must be registered veterinarians - at least 1.0 support staff (FTE) per 3 academic faculty FTE position
3. Recognized VEE	✓ <i>Specific stds</i> -adequate/moderate competencies <i>Advanced stds</i> ; limited/basic	11 standards	- 1:8 - At least 50% of faculty have a veterinary degree - At least 30% of faculty have a PhD or equivalent - Clinical faculty and other clinical teachers must be registered veterinarians - at least 1.0 support staff (FTE) per academic faculty FTE position
4. Established VEE	✓ <i>Specific stds</i> -adequate/moderate competencies <i>Advanced stds</i> ; limited/basic	11 standards	- Same as Level 4, but at least 40% of faculty have a PhD or equivalent

What is the next step?

- SEAVSA member meeting on December 2023 in Thailand
- Accreditation body





Acknowledgements:

- AVBC – OIE VSB Twinning Program VCT-AVBC 2018-2020
- World Organization for Animal Health (WOAH)
- Department of Livestock and Development (DLD)
- SEAVSA
- AVSBN
- Veterinary Council of Thailand (VCT)
- All AMS, the members of AVSBN
- PAVMES:



World Organisation
for Animal Health
Founded as OIE

Thank you for your attention





33rd Conference of the Regional Commission for Asia and the Pacific
New Delhi, India, 13 - 16 November 2023

PROGRAMME

MONDAY 13 NOVEMBER 2023

- 9:00 a.m. – 11:00 a.m. Arrival of participants and distribution of material
- 11:00 a.m. Opening ceremony
- 12:00 p.m. Group Photo / Break
- 12:30 p.m. Approval of the Programme
[Appointment of the Conference Committee](#)
(Chairperson, Vice-Chairperson and General Rapporteur)
Appointment of session chairpersons and rapporteurs
(Technical items and Animal Health Situation)
- 12:45 p.m. Posters Session opening
- 1:00 p.m. Lunch
- 2:00 p.m. [Keynote: Improving animal health globally to ensure a better future for all](#)
(Dr Monique Eloit, WOAHA Director General)
- 2:30 p.m. Discussion
- 3:00 p.m. [Implementation of Regional Work Plan Framework](#)
(Dr Hirofumi Kugita, WOAHA Regional Representative for Asia and the Pacific)
- 3:30 p.m. Discussion
- 4:00 p.m. Coffee break
- 4:30 p.m. [Analysis of the Animal Health Situation in Members in the region during 2022/2023](#)
(Dr Jenny Hutchison, Head of the World Animal Health Information and Analysis Department (virtual presentation))
- 5:30 p.m. **SIDE EVENT** (open to those interested participants): [Partnerships to Strengthen National Veterinary Services](#)
- 6:30 p.m. End of the session
- 7:30 p.m. Reception hosted by WOAHA

TUESDAY 14 NOVEMBER 2023

- 9:00 a.m. [Technical item I \(with questionnaire\): Preventing Zoonoses at Source – towards enhancing capacity for prevention, rapid detection, awareness, control, and research on zoonoses](#) (Prof. Serge Morand, Researcher of the French National Centre for Scientific Research (CNRS) and Prof Nitish Debnath, DAI's Country Team Lead for the Fleming Fund, Bangladesh program)
- 9:45 a.m. Discussion
- 10:15 a.m. Coffee break
Preparation of Recommendation No. 1 by designated small group
- 10:45 a.m. [Rabies: Towards "Zero by 30"](#) (Dr Shrikrishna Isloor, Karnataka Veterinary, Animal and Fisheries Sciences University, Dr Kinzang Dukpa, WOA Regional Project Coordinator (virtual presentation), WOA Science Department team (virtual presentation))
- 11:15 a.m. Discussion
- 11:45 a.m. [News from the Pandemic Fund and the World Bank on financing pandemic prevention and preparedness](#) (Dr Franck Berthe, Senior Health Specialist, One Health Lead The Pandemic Fund, World Bank)
- 12:10 p.m. Country Reports
- [India](#) (Dr Abhijit Mitra, Animal Husbandry Commissioner)
 - [Nepal](#) (Dr Umesh Dahal, Director General, Department of Livestock Services)
- 12:30 p.m. Discussion
- 1:00 p.m. Lunch
- 2:00 p.m. [Revision of the Terrestrial Code: Process, September report highlights and key topics for Asia and the Pacific](#) (Dr Kiyokazu Murai, Member of the Terrestrial Animal Health Standards Commission and Deputy Director for Multilateral Affairs from the International Animal Health Affairs Office, Animal Health Division, of the Ministry of Agriculture, Forestry and Fisheries of Japan)
- 2:30 p.m. Discussion
- 3:00 p.m. [Livestock traceability in India](#) (Ms. Varsha Joshi, Additional Secretary, Department of Animal Husbandry & Dairying, MoFAHD, Government of India)
- 3:25 p.m. Discussion
- 3:45 p.m. Coffee break
- 4:15 p.m. [Updates of RAWS](#) (Dr Kate Littin, Chair of RAWS Advisory Group) (virtual presentation)
- 4:40 p.m. Discussion
- 5:00 p.m. End of the session

WEDNESDAY 15 NOVEMBER 2023

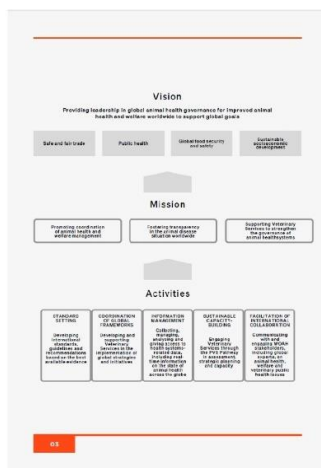
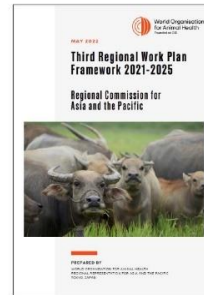
- 9:00 a.m. [Technical Item II: One Health approaches to addressing risk: Case studies and discussions focussed on AI with the objective of implementing effective/efficient surveillance and data sharing across sectors including wildlife and the environment](#) (Dr Erik Karlsson, Deputy Head of Virology Unit, Institute Pasteur Cambodia)
- 9:45 a.m. Discussion
- 10:15 p.m. Coffee break
Preparation of Recommendation No. 2 by designated small group
- 10:45 a.m. [Revision of the Aquatic Code: Process, September report highlights and key topics for Asia and the Pacific](#) (Dr Ingo Ernst, President of the Aquatic Code Commission (virtual presentation))
- 11:15 a.m. Discussion
- 11:45 a.m. [Updates on Asia-Pacific Network on Aquatic Animal Health](#) (AP AquaNet) (Dr Eduardo Leaño, Senior Programme Officer, NACA)
- 12:15 p.m. Discussion
- 12:45 p.m. Lunch
- 2:00 p.m. [Assessing and improving the quality of disease notification to WOA: Asia-Pacific experience in supporting early threat warning](#) (Dr Paolo Tizzani, WOA Data Integration Department (virtual presentation), and Dr Jacqueline Lusat, WOA Animal Health Information Officer)
- 2:30 p.m. Discussion
- 3:00 p.m. [Updates of Regional GF-TADs](#) (Dr Baoxu Huang, President of Regional Steering Committee of GF TADs)
- 3:25 p.m. Discussion
- 3:45 p.m. Coffee break
- 4:15 p.m. PVS Targeted Support: synergies for strengthening national Veterinary Services (Ms Barbara Alessandrini, Head, WOA Capacity Building Department)
- 4:30 p.m. Panel Discussion
- 5:15 p.m. Discussion of recommendations
- 6:15 p.m. End of the session
- 7:30 p.m. Reception hosted by India

THURSDAY 16 NOVEMBER 2023

- 8:30 a.m. The PVS Information System: Objectives, access to, and use of PVS data (**Note:** *This presentation unavailable as the system has not yet been launched. Please follow woah.org for further information and news.*)
(Ms Barbara Alessandrini, Head, WOAAH Capacity Building Department)
- 10:30 a.m. Break
- 11:00 a.m. The PVS Information System: Objectives, access to, and use of PVS data (cont.)
(Ms Barbara Alessandrini, Head, WOAAH Capacity Building Department)
- 12:00 p.m. Proposal of date and venue of the 34th Conference of the WOAAH Regional Commission for Asia and the Pacific
- 12:10 p.m. Conference conclusions and Adoption of Recommendations
- 12:40 p.m. Closing Ceremony
- 1:00 p.m. Lunch
- 2 :00 p.m. OPTIONAL : Cultural and/or technical visit (to be identified with the host country)

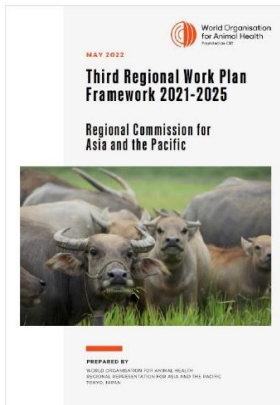
M&E for Regional Workplan Framework 2020-2025

Presented by WOAAH Regional Representation for Asia and the Pacific



Background

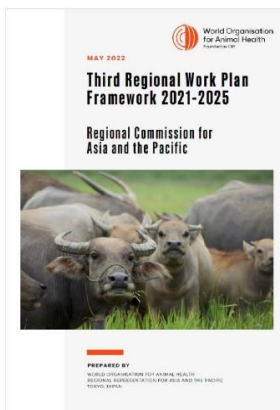
- WOAH is recognised as the international organisation that assists national Veterinary Services to improve animal health and welfare
- Improving animal health and welfare is the core mandate of WOAH
- Seventh Strategic Plan (2021-2025) vision is to provide leadership in global animal health governance by protecting animals and thereby preserve a future where safe and fair trade, public health, global food security and safety and sustainable socio-economic growth that support livelihoods are improved



- First RWPF (2011-2015) in accordance with WOA Fifth Strategic Plan
- Second RWPF (2016-2020) in accordance with WOA Sixth Strategic Plan
- Third RWPF (2021-2025) in accordance with WOA Seventh Strategic Plan
- Five key regional objectives were selected along with nine related priority regional activities
- Living document and regional objectives can be amended or expanded prior to 2025 should Regional Commission Members identify the need to do so
- **Evaluation of the Implementation of the RWPF will be conducted by the RRAP in collaboration with WOA HQs, the SRR-SEA and other relevant organisations and reported to the Regional Commission at its biennial Conference**

<https://rr-asia.woah.org/wp-content/uploads/2023/07/rcap-3rd-regional-work-plan-framework-2021-25.pdf>

Third Regional Workplan Framework



Key Regional Objectives	Related activities
Safe and fair trade	a. Enhance animal disease reporting b. Enhance the application of WOA standards and guidelines to facilitate trade, while safeguarding Regional Commission (RC) Members' animal health status
Public Health	a. Contribute to the Global Action Plan on antimicrobial resistance (AMR) b. Contribute to the Wildlife Health Framework
Global food security and safety	a. Contribute to regional initiatives to control TADs in the context of the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs)
Sustainable socio-economic development	a. Monitor and evaluate the performance of Veterinary Services b. Improve the capacity of veterinary laboratories c. Build capacity for preparedness and resilience
Cross-cutting area	a. Strengthen the network of WOA Reference Centres and other relevant institutes

<https://rr-asia.woah.org/wp-content/uploads/2023/07/rcap-3rd-regional-work-plan-framework-2021-25.pdf>

Approach

- This report mainly describes the situations in 2021-2023 using available information/data
- Selected 1-3 indicators each for the 9 listed activities related to the key regional objectives
- KPIs listed in the RWPF were used as references, but selected/adapted them based on:
 - Information/data availability (e.g., in 2022 Observatory report)
 - Priority activities

<https://tr-asia.woah.org/wp-content/uploads/2023/07/rcap-3rd-regional-work-plan-framework-2021-25.pdf>

**Third Regional Workplan Framework
1. Safe and Fair Trade**

 <p>a Enhance animal disease reporting</p>	Specific activities of RC members	<ul style="list-style-type: none"> • Timely reporting and follow-up reports supplied to WOAHP via the World Animal Health Information System (WOAH-WAHIS) platform • Targeted WOAHP training programmes for National Focal Points (NFPs) and familiarization of Delegates to support disease reporting, for terrestrial and aquatic animal diseases in domestic animals and wildlife • Encourage consideration and if appropriate the development of bilateral or sub-regional arrangements to enhance animal disease reporting
	KPIs	<ul style="list-style-type: none"> • Timely submission of immediate notification/follow-up reports • Regional submission rate of terrestrial and aquatic six-monthly reports and annual reports
	Reference materials	<ul style="list-style-type: none"> • WOAHP WAHIS-wild public interface World Animal Health Information System WAHIS - WOAHP - World Organisation for Animal Health • Regional Aquatic Animal Disease Report on the WOAHP regional website Regional Aquatic Animal Disease Reports - WOAHP - Asia

1. Timely submission of immediate notifications/follow-up reports, Asia Pacific, 2021- Sep 2023

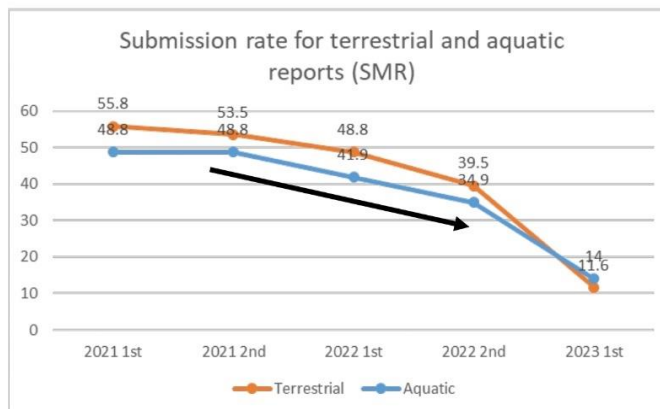


Year	Immediate notification (IN) (average number of days between the date of confirmation of the event and the date of the IN)	1 st Follow-up report (FUR) (average number of days between the first and the second report of an event)
2021	30 days	70 days
2022	21 days	41 days
2023 As of September 2023	30 days	27 days

- WAHIS trainings 😊
- 1-to-1 online session and webinars offered by WAHIAD 😊

(Data source: WAHIAD)

2. Regional Submission rate of terrestrial and aquatic six-monthly reports and annual reports, Asia Pacific, 2021- Sep 2023



The submission rate for both **terrestrial and aquatic** 6-monthly report (**SMR**) has been dropping since 2021

As of **September 2023**, the submission rate is just over 10% (i.e., 5 terrestrial and 6 aquatic SMRs have been submitted)

Yet, the deadline of submission for the **1st SMR for 2023 is set in October**.

Hopefully more members will submit their reports by then.

(Data source: WAHIAD)

Third Regional Workplan Framework

1. Safe and Fair Trade

b. Enhance the application of WOAHS standards and guidelines to facilitate trade, while safeguarding Regional Commission Members' animal health status

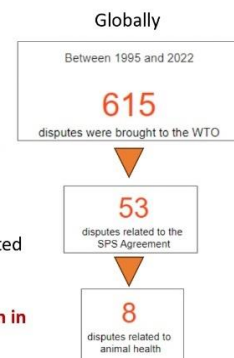
Specific activities of RC members	<ul style="list-style-type: none"> Follow WOAHS standards for trade in animals and animal products in accordance with WTO SPS Agreement requirements. Where deviations are made from a WOAHS standard this is shown to be underpinned by a risk assessment Share experience and advice on the application of WOAHS standards being used for trade with other RC Members. Improve the transparency of border control measures taken between Members.
KPIs	<ul style="list-style-type: none"> Region-specific outputs of the WOAHS observatory project. Minutes of the meetings of the WTO SPS Committee Minutes of specific WTO trade dispute meetings WTO notifications completed accurately and completely. Compliance with the WTO SPS agreement and Trade Facilitation Agreement (if WTO members) with respect to border control.
Reference materials	<ul style="list-style-type: none"> WOAHS observatory Observatory - WOAHS - World Organisation for Animal Health WOAHS PVS Evaluation and Follow-up reports PVS Pathway - WOAHS - World Organisation for Animal Health PVS Pathway data in the PVS Pathway Information System (development currently being initiated) WTO notifications Home - Notification Portal (wto.org)

81%
of the
32
WOAHS Members
are also WTO Members

84%
of the
31
WTO Members
are also WOAHS Members

1. Number of WTO trade disputes related to animal health

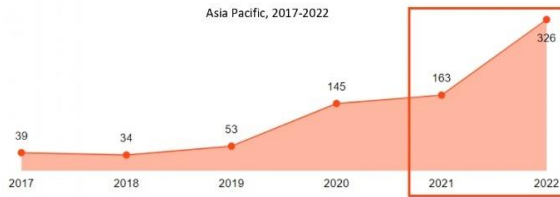
- The WTO has an international dispute settlement mechanism. WTO Members can use this mechanism if they believe that fellow Members are violating the trade rules established by WTO agreements such as the SPS Agreement.
- Globally, Observatory found 8 (15%) of 53 disputes related to the SPS Agreement related to animal health
- No disputes related to animal health involved Members in Asia and the Pacific Region in 2021-2022**



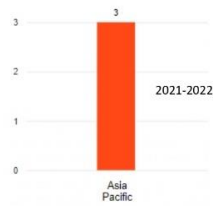
(Data source: Observatory annual report 2022; dashboard for Observatory report 2023)

2. WTO notifications related to WOA Standards, Asia Pacific, 2017-2022 (with a focus on 2021 and 2022)

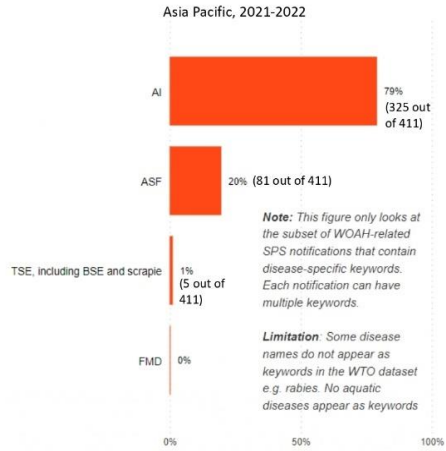
Number of WOA-related SPS notifications filed per year



Median number of WOA-related SPS notifications filed per Member, by region



Disaggregation of WOA-related SPS notifications by disease



(Data source: Observatory annual report 2022; dashboard for Observatory report 2023)

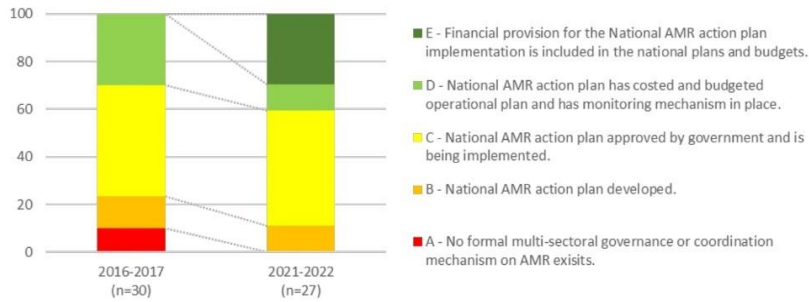
Third Regional Workplan Framework 2. Public Health

a. Contribute to the Global Action Plan on antimicrobial resistance (AMR)

Specific activities of RC members	<ul style="list-style-type: none"> Develop and implement a National Action Plan (NAP) on AMR Provide quantitative antimicrobial use (AMU) data to the WOA global database on AMU in terrestrial and aquatic animals Implement WOA guidelines for the responsible and prudent use of antibiotics Where appropriate, promote research into alternative medicines and their use if therapeutically efficacious.
KPIs	<ul style="list-style-type: none"> Tripartite AMR Country Self-Assessment Survey (TrACSS), or Number of RC Members that have confirmed to the RRAP they have a fit-for-purpose NAP and are implementing it. WOAH Headquarters report(s) on RC Members that have confirmed they have submitted all relevant AMU data.
Reference materials	<ul style="list-style-type: none"> Global Action Plan on AMR 9789241509763_eng.pdf (who.int) TrACSS The WOA Strategy on AMR and the Prudent Use of Antimicrobials Strategy on Antimicrobial Resistance and the Prudent Use of Antimicrobials - WOA - World Organisation for Animal Health Aquatic Animal Health Strategy (Objective 3 Resilience, Activity 3.4) Annual AMU reports.

1. Progress-levels on AMR NAP development and implementation
 Extracted from TRACSS, Asia Pacific

Portions of progress levels on AMR NAP



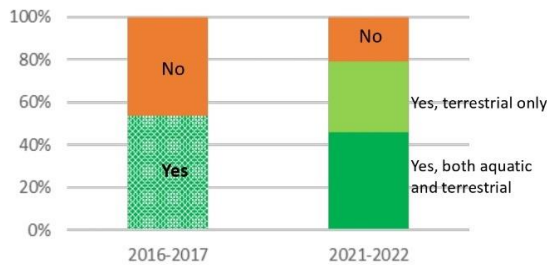
- Great progress in development of NAPs
- National costing/budgeting to support NAP implementation seems to be a challenge for many members

Data source:
 Global Database for Tracking Antimicrobial Resistance (AMR) Country Self-Assessment Survey (TrACSS) (amrcountryprogress.org)

2. AMU data submission

National AMU monitoring system in place for monitoring sales/use of antimicrobials in animals (Data source: TrACSS)

	2016-2017	2021-2022
No	13	5
Yes, terrestrial animals only	15	8
Yes, both aquatic and terrestrial		11
Total (nb countries)	32	32



AMU data reporting to WOA
 (Data source: WOA Annual AMU Report)

	1st round (2015)	7th round (2022)
No participation	17	1
Qualitative (baseline) reporting		5
Reporting Option 1 or 2	11	15
Reporting Option 3	4	11
Total (nb countries)	32	32



Third Regional Workplan Framework 2. Public Health

b. Contribute to the Wildlife Health Framework

Specific activities of RC members	<ul style="list-style-type: none"> • Provide accurate reports to WAHIS-Wild to share information on the disease situation in wildlife. • Encourage NFPs to actively contribute to WOAHP wildlife-related activities, including relevant tasks assigned to them by WOAHP Specialist Commissions and the WOAHP Wildlife Working Group. • Support the integration of competencies required for surveillance in wildlife in veterinary postgraduate training. • Form a network of wildlife specialists for the Region
KPIs	<ul style="list-style-type: none"> • Regional submission rate to WAHIS-Wild by RC Members. • Establishment of a network of wildlife specialists/experts from each of the sub-regions (i.e. East Asia, South Asia, South East Asia and the Pacific)
Reference materials	<ul style="list-style-type: none"> • WOAHP Wildlife Health Framework Wildlife Health - WOAHP - World Organisation for Animal Health

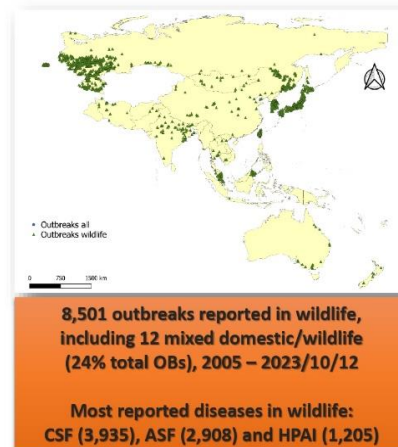
1. Regional submission rate to WAHIS-Wild by RC Members.

WOAHP WAHIS-WILD Beta platform

- WAHIS-Wild reporting module discontinued 5 years ago
- Current reporting systems:
 - **Listed & emerging diseases** are reported to WOAHP-WAHIS (relaunched in 2022)
 - For n.56 **non-listed diseases/health events**, temporary online survey WAHIS-Wild Beta (launched in 2023)
- Wildlife disease reporting to WAHIS-Wild Beta by Members:
 - Only TWO reports submitted from 2021-2023.

(Data sources: Training materials from WOAHP headquarters as listed below; WAHIS-WILD Beta dashboard)

- [Training](#) by WAHIAD for WOAHP Focal Points for Wildlife & WOAHP Focal Points for Disease Notification 2021/09/24
- [WAHIS-WILD Beta training](#) 2023/02/03
- [6th Cycle Training of WOAHP Focal Points for Wildlife in Asia & the Pacific with Regional Networking Workshop, pre-workshop e-learning](#), 2023/01/17



2. Establishment of a network of wildlife specialists/experts from each of the sub-regions (i.e. East Asia, South Asia, South East Asia and the Pacific)

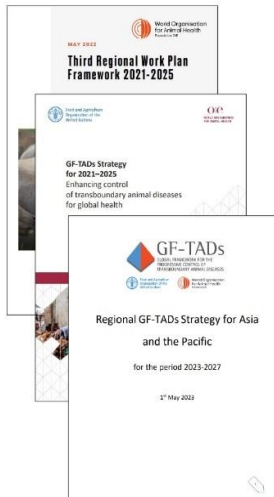
WOAH Wildlife Health Networks

- **Sub-regional networks** established in 2021, ToR for each
 - East Asia (n.9 meetings)
 - South Asia (n.3 meetings)
 - South East Asia (n.3 meetings, including one in-person)
 - Pacific (n.4 meetings)
- **WOAH Regional Wildlife Health Network for Asia & the Pacific**
- Established in February 2023 at [6th Cycle Training of WOAH Focal Points for Wildlife in Asia & the Pacific with Regional Networking Workshop](#)
 - Secretariat formed
 - ToR being finalised

(Data source: Meeting materials as published on regional WOAH website; annual summary reports from WOAH Wildlife Health Networks 2022.)

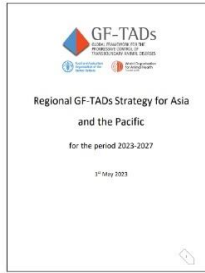


Third Regional Workplan Framework 3. Global food security and safety



Specific activities of RC members	<ul style="list-style-type: none"> • Contribute to the development and implementation of the Regional GF-TADs strategy and action plan • As relevant, participate in the Regional and Sub-Regional campaign, projects and meeting under the umbrella of the Global and Regional GF-TADs
KPIs	<ul style="list-style-type: none"> • Publication of the Regional GF-TADs strategy and action plan • Existing WOAH tools and data, such as the number of Members that, for specific diseases, have WOAH-recognized disease-free status, WOAH endorsed official disease control programmes, or self-declared disease status
Reference materials	<ul style="list-style-type: none"> • GF-TADs global website https://www.gf-tads.org/ • Global GF-TADs strategy https://www.fao.org/3/cb6800en/cb6800en.pdf • Regional GF-TADs strategy https://rr-asia.woah.org/wp-content/uploads/2023/05/gf-tads-rs-for-asia-and-the-pacific_adopted_20230501.pdf

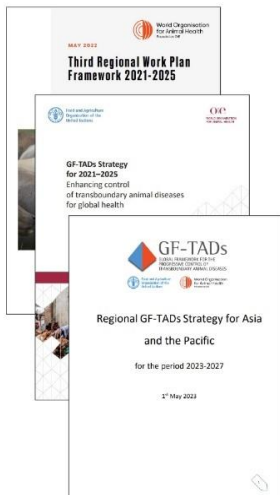
1. Publication of the Regional GF-TADs Strategy and Workplan



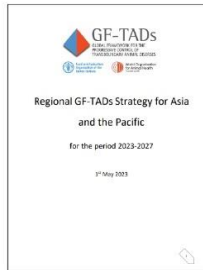
Activity	2023	2024	2025	2026	2027	Lead organization / support partner
Regional GF-TADs Strategy for Asia and the Pacific						WOAH
Regional GF-TADs Workplan for Asia and the Pacific						WOAH
Regional GF-TADs Strategy for Africa and the Eastern Mediterranean						WOAH
Regional GF-TADs Strategy for the Americas						WOAH
Regional GF-TADs Strategy for Europe						WOAH
Regional GF-TADs Strategy for the Middle East and North Africa						WOAH
Regional GF-TADs Strategy for the Western Pacific						WOAH
Regional GF-TADs Strategy for the World						WOAH
Regional GF-TADs Strategy for the Eastern Mediterranean						WOAH
Regional GF-TADs Strategy for the Americas						WOAH
Regional GF-TADs Strategy for Europe						WOAH
Regional GF-TADs Strategy for the Middle East and North Africa						WOAH
Regional GF-TADs Strategy for the Western Pacific						WOAH
Regional GF-TADs Strategy for the World						WOAH
Regional GF-TADs Strategy for the Eastern Mediterranean						WOAH
Regional GF-TADs Strategy for the Americas						WOAH
Regional GF-TADs Strategy for Europe						WOAH
Regional GF-TADs Strategy for the Middle East and North Africa						WOAH
Regional GF-TADs Strategy for the Western Pacific						WOAH
Regional GF-TADs Strategy for the World						WOAH

- ✓ Regional GF-TADs Strategy for Asia and the Pacific is a guiding document for regional and sub-regional activities
- ✓ It has been developed during the 12th Regional GF-TADs RSC meeting in Feb 2023, and adopted on 1st May 2023 ad referendum
- ✓ Three Objectives, 11 expected Outputs and 37 Actions are identified
 - Strategies and mechanism
 - Capacity activities
 - Partnerships
- ✓ Annexed with ToR and operational two-year workplan
- ✓ Five diseases are listed as regional importance (FMD, PPR, ASF and other swine diseases, AI and LSD)
- ✓ Both documents are available on the WOAH Regional Website <https://rr-asia.woah.org/en/projects/tads/>

Third Regional Workplan Framework 3. Global food security and safety



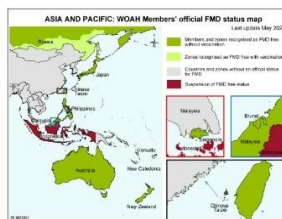
Specific activities of RC members	<ul style="list-style-type: none"> • Contribute to the development and implementation of the Regional GF-TADs strategy and action plan • As relevant, participate in the Regional and Sub-Regional campaign, projects and meeting under the umbrella of the Global and Regional GF-TADs
KPIs	<ul style="list-style-type: none"> • Publication of the Regional GF-TADs strategy and action plan • Existing WOAH tools and data, such as the number of Members that, for specific diseases, have WOAH-recognized disease-free status, WOAH endorsed official disease control programmes, or self-declared disease status
Reference materials	<ul style="list-style-type: none"> • GF-TADs global website https://www.gf-tads.org/ • Global GF-TADs strategy https://www.fao.org/3/cb6800en/cb6800en.pdf • Regional GF-TADs strategy https://rr-asia.woah.org/wp-content/uploads/2023/05/gf-tads-rs-for-asia-and-the-pacific_adopted_20230501.pdf



1. Publication of the Regional GF-TADs Strategy and Workplan

- ✓ Regional GF-TADs Strategy for Asia and the Pacific is a guiding document for regional and sub-regional activities
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2. Existing WOA tools and data, such as the number of Members that have WOAH-recognized disease-free status, WOAH endorsed official disease control programmes, or self-declared disease status



Third Regional Workplan Framework
4. Sustainable socio-economic development

a. Monitor and evaluate the performance of Veterinary Services

Specific activities of RC members	<ul style="list-style-type: none"> Where relevant, engagement with the WOAHP Veterinary Legislation Support Programme. Where appropriate, utilization of the WOAHP Performance of Veterinary Services (PVS) Pathway or the PVS self-assessment tool. Implementation of recommendations of PVS Pathway missions or self-assessments.
KPIs	<ul style="list-style-type: none"> Number of RC Members that have assessed the need for PVS assessment and requested various PVS Pathway missions (PVS Evaluation/Follow-up, or PVS Gap Analysis missions and Strategic planning). Number of RC Members that have assessed the need for and conducted PVS self-assessment or utilized other assessment tools.
Reference materials	<ul style="list-style-type: none"> Tool for the Evaluation of Performance of Veterinary Services, 2019. v17419-PVSTool.indd (woah.org) Tool for the Evaluation of Performance of Aquatic Animal Health Services, 2021. PVS Tool for the Evaluation of Performance of Aquatic Animal Health Services - WOAHP - World Organisation for Animal Health

Number of RC Members that have participated in various PVS Pathway missions, 2006-Oct 2023



Since 2006, 26 (81%) of Asia Pacific Members engaged in at least one mission

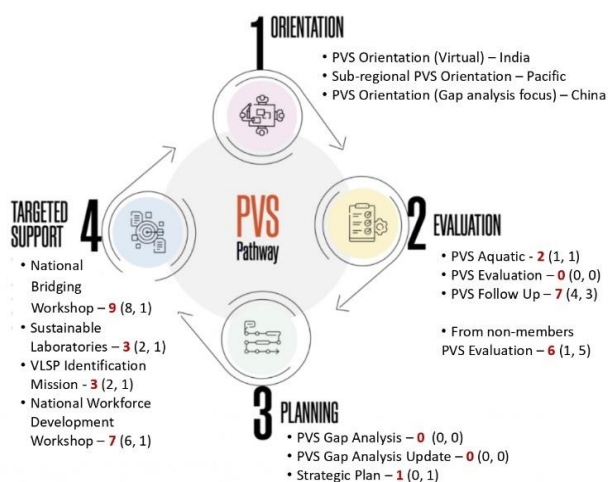


* Until October 2023

** Targeted support included: NBW, Sustainable Lab Missions, VLSP Identification and agreement

(Data source: PVS Dashboard)

Number of RC Members that have participated in various PVS Pathway missions, 2021-Oct 2023



Between 2021 and October 2023, 16 (50%) Asia Pacific Members engaged in at least one national level activity



Numbers shown:
Total number of mission including both requested and done (mission done, requests received but mission not yet conducted)

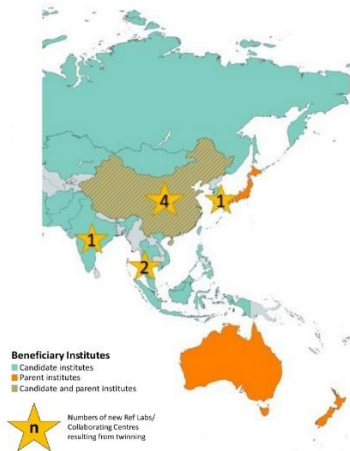
Third Regional Workplan Framework 4. Sustainable socio-economic development



b. Improve the capacity of veterinary laboratories

Specific activities of RC members	<ul style="list-style-type: none"> • Where appropriate, participate in Laboratory Twining projects, PVS Laboratory missions and laboratory proficiency testing. • Where relevant, provide guidance and encourage laboratories to improve laboratory biosafety and biosecurity by participating in the OIE Sustainable Laboratories Initiatives.
KPIs	<ul style="list-style-type: none"> • Number of WOAHO Reference Centres in the Region participating in Laboratory Twining projects, PVS Laboratory missions and laboratory proficiency testing
Reference materials	<ul style="list-style-type: none"> • PVS Sustainable Laboratory Support. Sustainable Laboratories Support - WOAHO • Dedicated site for WOAHO Reference Centres in the regional WOAHO website. Reference Centres - WOAHO - Asia

1. Number of WOA Reference Centres in the region participating in Laboratory Twinning Projects (2021-2023): 4



Projects completed (4)			
Viral Haemorrhagic Fevers	New Zealand	Liberia	2020-2022
Rabies	France	Chinese Taipei	2018-2022
Infectious Hypodermal and Haematopoietic Necrosis and White Spot Disease	China P.R.	Indonesia	2019-2021
Emerging Infectious Diseases (pigs)	Australia	Vietnam	2017-2022
Projects ongoing (5)			
Bovine TB	UK	China P.R.	2023-
Lumpy Skin Disease	South Africa	China P.R.	2023-
Brucellosis	China P.R.	Pakistan	2022-
African Swine Fever	UK	Philippines	2021-
Wildlife Diseases	USA	Thailand	2020-

2. Number of WOA Reference Laboratories in the region organising or participating in inter-Laboratory Proficiency Testing (2021-2022):

Year	No. of RL	RLs participating in LABORATORY PROFICIENCY TESTING
2021	58	35 (60%)
2022	59	56 (95%)

Data source: RCs Annual Reports

3. Number of Regional Commission Members participated in PVS Laboratory missions (2021-Oct 2023): 2

- Cambodia (2022)
- Philippines (Oct 2023)

Third Regional Workplan Framework
4. Sustainable socio-economic development

c. Build Capacity for preparedness and resilience

Specific activities of RC members	<ul style="list-style-type: none"> Encourage the development of fit-for-purpose Emergency Management Plans. Build detection and surveillance capacity for emerging and re-emerging diseases, with the support of, or in collaboration with, the WOA Reference Centres. Conduct joint risk assessment, epidemiological investigations, risk communication, and simulation exercises for emerging diseases, with multi-sector involvement. Share emergency disease response plans on-line. Encourage the use of One Health approach for control of TADs and emerging zoonotic diseases.
KPIs	<ul style="list-style-type: none"> Numbers of members' simulation exercises in the Region notified to WOA. Number of response plans shared on Members' websites.
Reference materials	<ul style="list-style-type: none"> Dedicated site on emergency management on the WOA global website. Emergency Preparedness - WOA - World Organisation for Animal Health Emergency Management Centre-Animal Health (EMC-AH) EMC Animal Health Food and Agriculture Organization of the United Nations (fao.org)

1. Numbers of members' simulation exercises in the region notified to WOA

Members	2021	2022	2023
Australia	<ul style="list-style-type: none"> Equine Influenza Disease agnostic simulation program 	<ul style="list-style-type: none"> Highly pathogenic avian influenza 	<ul style="list-style-type: none"> Exercise FlyWheel on an exotic disease outbreak, Foot and mouth disease Lumpy skin disease and high pathogenicity avian influenza
New Zealand			<ul style="list-style-type: none"> Foot and mouth disease
Singapore	<ul style="list-style-type: none"> African Swine Fever 		

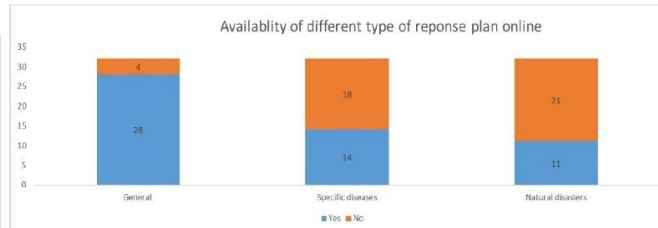
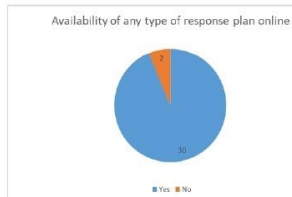
Remarks:
 Asia Pacific Region is lagging behind Africa, Americas, and Europe in reporting simulation exercises to WOA

[#]Table to show the simulation exercises reported to WOA (2021-2023)

[#] <https://www.woah.org/en/what-we-do/animal-health-and-welfare/disease-data-collection/simulation-exercises/#ui-id-3>

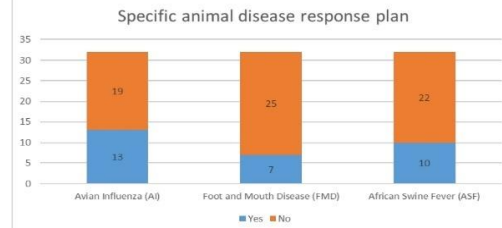
- Only 8 simulations notified to WOA from 2021 to 2023

2. Number of response plans shared on Members' websites (Response plan – animal disease or natural disaster related contingency plan and related laws)



- As of September 2023, **2 out of the 32 Members** within Asia and the Pacific region **do not have any response plan published online** that are easily accessible by the public
- The other have at least 1 type of animal disease or natural disaster related law or response plan available online
- For the animal diseases selected, most of the Members (**13**) share their **response plan for AI** online whilst 10 and 7 for ASF and FMD

Disclaimer:
There might be some deviations from the actual situation as the above information was collected via websites that were accessible by RRAP Office



Third Regional Workplan Framework

5. Cross-cutting area

a. Strengthen the network of WOA Reference Centres and other relevant institutes

Specific activities of RC members	<ul style="list-style-type: none"> Where relevant, encourage institutes or experts of RC Members to participate in and contribute to regional networks on relevant topics. Where relevant, encourage, support and facilitate the WOA Reference Centres to organise workshops, training sessions or research projects in collaboration with regional networks that address the capacity-building and research needs of the Region. Where relevant, promote sharing of pathogenic agents of TADs in the Region as a reference for potency evaluation of animal vaccines available in the region. Where relevant, encourage laboratories to provide or obtain reference materials for emerging infectious diseases.
KPIs	<ul style="list-style-type: none"> Numbers of relevant meetings/workshops or training sessions organised by WOA Reference Centres. Quantity of reference materials provided.
Reference materials	<ul style="list-style-type: none"> Dedicate site for WOA Reference Centres in Asia and the Pacific on the WOA Regional Website. Reference Centres - WOA - Asia Regional Expert Group for Avian Diseases in Asia and the Pacific avian influenza situation alerts Avian Influenza - WOA - Asia Laboratory Network on Animal Feed Safety in Asia and the Pacific. FAMIC

Numbers of WOA Reference Centres in Asia Pacific region organising relevant meetings/workshops or training sessions for WOA Members (2021, 2022)

Year	No. of CC	CCs organizing meetings/workshops or training sessions	No. of RL	RLs organizing meetings/workshops or training sessions
2021	12	11(92%)	58	31(53%)
2022	12	12(100%)	59	36(61%)

Data source: RCs Annual Reports

Example of activities organised by WOA Reference Centres in Asia Pacific, 2021-Oct 2023


- Sub-Regional Training Workshop on Animal Rabies Diagnosis for South Asia, by KVAFSU, Rabies RL, 2023
- Training workshop on molecular epidemiology techniques for rabies, by CVRI, Rabies RL, 2023
- Webinar Series on “Emerging topics in our food environment” by Food Safety CC consortium, 2023
- Virtual Training on Analysis of Pesticides in Feed by FAMIC, Feed Safety CC, 2023

Reference Centres’ (RCs) Information Sharing Platform

- A private site (SharePoint) accessible by added participants
- Information on Reference Laboratories’ and Collaborating Centres’ activities and capacities, with contact information
- Events organised by RCs, to share information for collaboration and participation

Regional RC Meetings

- 1st Meeting (2017, Tokyo)
- 2nd Meeting (2019, Tokyo)
- 3rd Meeting (2021, Virtual)
- 4th Meeting (2024?)



The screenshot shows the 'RCs Information Sharing Platform' website. The header includes navigation links for Home, RI Activity, Technical, RI Activity Apps, CC Activity, Documents, and L&L. Below the header is a navigation bar with '+ New', 'Page details', and 'Analytics'. The main content area features a large image of laboratory equipment and the title 'Reference Centres Information Sharing Platform in Asia and the Pacific'. The text below the image reads: 'What is this platform? This platform was established by IRAP in response to recommendations and inputs by Reference Centres (RCs) in the region. With this platform: Members can find possible support provided by RCs; Members can request support from RCs; RCs and Members have more opportunity to participate in scientific and capacity building events hosted by RCs; RCs can organise events or conduct research collaboratively with RCs holding the same interests, and avoid duplication.' There are links for 'User Guide of the Platform' and 'Frequently Asked Questions'. At the bottom, it says 'Section 1: List of activities of Reference Laboratories (RLs) and Collaborating Centres (CCs) in Asia and the Pacific. Click on 'See all' to refer to the details as well as to update information if you represent one of the RLs or CCs.'

Evaluation of Implementation of Regional Workplan Framework for the Regional Commission for Asia and the Pacific



Summary and way forward

- The region is very active; implementing majority of activities in the workplan framework.
- Many activities during 2021-2022 were affected by COVID-19 pandemic
- For this report:
 - Some KPIs in RWPF had to be adjusted
 - Some data were difficult to access
 - Encourage Members make more information available online e.g., response plans
 - Encourage Members to share information with WOAH e.g., simulation exercise
- Future activities in the region can be targeted to support achievement of RWPF Objectives (monitored by KPIs)
- Next reporting in 2025
 - May need to further revise KPIs
 - Further collaboration with Observatory programme

WOAH Reference Laboratory Reports Activities 2022

Activities in 2022

This report has been submitted : 13 mars 2023 09:26

Laboratory Information

Name of disease (or topic) for which you are a designated WOA Reference Laboratory:	African swine fever
Address of laboratory:	CSIRO Australian Centre for Disease Preparedness
Tel.:	+61 3 5227 5000
E-mail address:	d.williams@csiro.au
Website:	https://www.csiro.au/en/about/facilities-collections/acdp
Name (including Title) of Head of Laboratory (Responsible Official):	Professor Trevor Drew
Name (including Title and Position) of WOA Reference Expert:	Dr David Williams
Which of the following defines your laboratory? Check all that apply:	Governmental

TOR1: DIAGNOSTIC METHODS

1. Did your laboratory perform diagnostic tests for the specified disease/topic for purposes such as disease diagnosis, screening of animals for export, surveillance, etc.? (Not for quality control, proficiency testing or staff training)

Yes

Diagnostic Test	Indicated in WOA Manual (Yes/No)	Total number of test performed last year	
		Nationally	Internationally
Indirect diagnostic tests			
cELISA	Yes	1150	117
IFAT	Yes	25	0
Direct diagnostic tests			
		Nationally	Internationally

WOAH Reference Laboratory Reports Activities 2022

Real-time PCR	Yes	4854	22
Virus isolation	Yes	5	0
Sequencing	No	17	9
Immunohistochemistry	Yes	0	0

TOR2: REFERENCE MATERIAL

2. Did your laboratory produce or supply imported standard reference reagents officially recognised by WOA?H?

No

3. Did your laboratory supply standard reference reagents (nonWOAH-approved) and/or other diagnostic reagents to WOA?H Members?

Yes

TYPE OF REAGENT AVAILABLE	RELATED DIAGNOSTIC TEST	PRODUCED/ PROVIDE	AMOUNT SUPPLIED NATIONALLY (ML, MG)	AMOUNT SUPPLIED INTERNATIONALLY (ML, MG)	NO. OF RECIPIENT WOA?H MEMBER COUNTRIES	COUNTRY OF RECIPIENTS
Lateral flow device	Rapid antigen test	Provide	0	100 units	1 - PNG	Asia and Pacific
Antibody test	ELISA	Provide	0	480 tests	1 - PNG	Asia and Pacific
Antigen test	ELISA	Provide	0	480 tests	1 - PNG	Asia and Pacific
Polyclonal antiserum	ELISA, IFAT	Produced	0	2.5 ml	1 - Philippines	Asia and Pacific
ASF network quality control	PCR	Produced	20 ml	0	1 - Australia	Asia and Pacific
ASF network quality control	ELISA	Produced	35 ml	0	1 - Australia	Asia and Pacific

4. Did your laboratory produce vaccines?

No

5. Did your laboratory supply vaccines to WOA?H Members?

No

TOR3: NEW PROCEDURES

6. Did your laboratory develop new diagnostic methods for the designated pathogen or disease?

Yes

NAME OF THE NEW TEST OR DIAGNOSTIC METHOD DEVELOPED	DESCRIPTION AND REFERENCES (PUBLICATION, WEBSITE, ETC.)
ASFV Genotype 1 assay	The protocol described below was developed by the ACDP for the specific detection of ASFV genotype 1 isolates to address the recent emergence of this type in China. This assay has been validated using a panel of reference isolates belonging to genotypes 1, 2, 7, 9 and 10, as well as diagnostic specimens. No cross-reactions with other genotypes tested and no false positive results were found. No cross-reactions with other porcine viruses tested have been detected. Details will be included in the upcoming WOA?H diagnostic manual (Addressing African swine fever: Protocols and

7. Did your laboratory validate diagnostic methods according to WOAHS Standards for the designated pathogen or disease?

No

8. Did your laboratory develop new vaccines for the designated pathogen or disease?

No

9. Did your laboratory validate vaccines according to WOAHS Standards for the designated pathogen or disease?

No

TOR4: DIAGNOSTIC TESTING FACILITIES

10. Did your laboratory carry out diagnostic testing for other WOAHS Members?

Yes

NAME OF WOAHS MEMBER COUNTRY SEEKING ASSISTANCE	DATE	WHICH DIAGNOSTIC TEST USED	NO. SAMPLES RECEIVED FOR PROVISION OF DIAGNOSTIC SUPPORT	NO. SAMPLES RECEIVED FOR PROVISION OF CONFIRMATORY DIAGNOSES
NEPAL	2022-05-11	PCR and sequencing	0	6
TIMOR-LESTE	2022-04-19	PCR and sequencing	0	10
SOLOMON (ISLANDS)	2022-10-27	Antibody ELISA	75	0
PAPUA NEW GUINEA	2022-11-09	Antibody ELISA	42	0

11. Did your laboratory provide expert advice in technical consultancies on the request of an WOAHS Member?

Yes

NAME OF THE WOAHS MEMBER COUNTRY RECEIVING A TECHNICAL CONSULTANCY	PURPOSE	HOW THE ADVICE WAS PROVIDED
HONG KONG	Advice on laboratory and field diagnostic testing	Remote assistance (emails)
PAPUA NEW GUINEA	Advice on laboratory and field diagnostics and surveillance; training and SOPs for rapid antigen test	Remote assistance (emails) and in person
SAMOA	Training and SOPs for rapid antigen test (through consultancy with PHAMA Plus and SPC)	Remote assistance (email and webinars)

TOR5: COLLABORATIVE SCIENTIFIC AND TECHNICAL STUDIES

12. Did your laboratory participate in international scientific studies in collaboration with WOAHS Members other than the own?

Yes

Title of the study	Duration	PURPOSE OF THE STUDY	PARTNERS (INSTITUTIONS)	WOAHS MEMBER COUNTRIES INVOLVED OTHER THAN YOUR COUNTRY
Comparative evaluation of		Compare commercially		

PCR diagnostic tests for the detection of ASFV virus DNA in oral fluids and whole blood (US National Pork Board; NPB #19-209)	3 years	available PCR kits for testing oral fluids and whole blood from experimentally infected pigs	Kansas State University, USA; CSIRO; National Centre for Foreign Animal Disease, CFIA, Canada	CANADA UNITED STATES OF AMERICA
Whole genome sequencing of ASF viruses from Southeast Asia and the Pacific	2 years	Generate and analyse complete genome sequences to undertake improved molecular epidemiology analyses	National Directorate of Veterinary Services of the Ministry of Agriculture and Fisheries, Government of Timor-Leste, PNG National Animal Health & Quarantine Inspection Authority, Central Veterinary Laboratory, Nepal	NEPAL PAPUA NEW GUINEA TIMOR-LESTE
New diagnostic strategies to detect disease outbreaks and inform vaccination approaches	3 years	Collaboration between CSIRO and Chinese Academy of Science for diagnostic strategies to support future approaches to mitigating and managing an ASF incursion or outbreak	Institute of Microelectronics, CAS, China	CHINA (PEOPLE'S REP. OF)

TOR6: EPIZOOLOGICAL DATA

14. Did your Laboratory collect epidemiological data relevant to international disease control?

Yes

IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED.

Molecular epidemiological data for the ASF virus detected in Nepal was generated as part of this laboratory investigation.

15. Did your laboratory disseminate epidemiological data that had been processed and analysed?

Yes

IF THE ANSWER IS YES, PLEASE PROVIDE DETAILS OF THE DATA COLLECTED.

The results of molecular typing using partial genes (p72, IGR, CD2v and CVR) were reported to the submitting laboratory in Nepal.

16. What method of dissemination of information is most often used by your laboratory? (Indicate in the appropriate box the number by category and list the details in the box)

a) Articles published in peer-reviewed journals:

1

1. McOrist S, Scott PC, Jendza J, Paynter D, Certoma A, Izzard L, Williams DT. Analysis of acidified feed components containing African swine fever virus. *Res Vet Sci.* 2022 Dec 20;152:248-260. doi: 10.1016/j.rvsc.2022.08.014. Epub 2022 Aug 23. PMID: 36055134.

b) International conferences:

6

1. Williams, David. Combating African swine fever in the Pacific. In: 6th Congress of The European Association of Veterinary Laboratory Diagnosticians (EAVLD) 24-26 Oct 2022; Seville Spain; Delivered online
2. Williams, David. PoC testing guide. WOA Regional Laboratory Expert Meeting for African Swine Fever in Asia & the Pacific; 02 -04 Nov 2022; Geelong Australia.
3. Williams, David. Updating the Asia-Pacific laboratory algorithm. WOA Regional Laboratory Expert Meeting for African Swine Fever in Asia & the Pacific; 02 -04 Nov 2022; Geelong Australia.
4. Neave, Matthew. African swine fever virus: Genomics and sequencing. In: WOA Regional Laboratory Expert Meeting for African Swine Fever in Asia & the Pacific; 02 -04 Nov 2022; Geelong Australia.
5. Rachel Layton. The African swine fever disease model at ACDP. In: WOA Regional Laboratory Expert Meeting for African Swine Fever in Asia & the Pacific; 02 -04 Nov 2022; Geelong Australia.
6. Peter Durr. Comparing different types of dry swabs for collecting blood from ASFV- infected pigs. In: WOA Regional Laboratory Expert Meeting for African Swine Fever in Asia & the Pacific; 02 -04 Nov 2022; Geelong Australia.

c) National conferences:

4

1. Rachel Layton. The African swine fever disease model at ACDP. In: Australian Pig Veterinarians 2022 Conference, 8th-9th September 2022; Geelong Australia.
2. Peter Durr. Comparing different types of dry swabs for collecting blood from ASFV- infected pigs. In: Australian Pig Veterinarians 2022 Conference, 8th-9th September 2022; Geelong Australia. Lynch,
3. Stacey African swine fever virus preparedness: Verifying sample collection workflows and establishing virus isolation methods. In: Australian Association of Veterinary Laboratory Diagnosis (AAVLD); 17-18 Oct 2022; Launceston TAS.
4. Lynch, Stacey. The African swine fever pandemic: on our doorstep needing vaccine solutions. In: Australian Society Immunology: Wild and Comparative Immunology Special Interest Group; 28th Nov 2022. The University of Melbourne VIC.

d) Other (Provide website address or link to appropriate information):

2

1. Australian Centre for Disease Preparedness African swine fever website: <https://www.csiro.au/en/research/animals/veterinary/African-swine-fever>
2. Discontools. Disease and Product analysis for African swine fever. Led by Prof. JM. Sánchez-Vizcaíno with contributions from Dr. D. Williams (ACDP). Submitted for online publication: <https://www.discontools.eu/>

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

17. Did your laboratory provide scientific and technical training to laboratory personnel from other WOA Members?

Yes

a) Technical visit : 1

b) Seminars : 2

c) Hands-on training courses: 12

d) Internships (>1 month)

Type of technical training provided (a, b, c or d)	Country of origin of the expert(s) provided with training	No. participants from the corresponding country
C. Practical training for ASF Antigen Rapid Test (virtual), organised by Pacific Horticultural & Agricultural Market Access Plus Program (PHAMA Plus) and the Pacific Community (SPC)	Western Samoa	12
B, C. Veterinary Field Diagnostic Training for ASF, CSF, anthrax, FMD, LSD, AI and NDV (disease, epidemiology, sampling, laboratory and field diagnosis, & post-mortem examination); practical training for ASF rapid antigen test	Papua New Guinea	28
B. BaseCamp Asia Training course – diseases and laboratory diagnosis of ASF, CSF, PRRS, FMD & Aujeszky's disease	Taiwan, Japan, Philippines, Thailand, Indonesia, China, Vietnam	51
C. Regional Proficiency Testing Provider Training, 21-25 February 2022 (Virtual)	China, Vietnam, Thailand, Malaysia, South Korea, Japan, Indonesia, India	14
C. NGS Wet-Lab Protocols for RNA (AIM) and DNA (ASF) viruses Workshop, 21-23 March 2022 (Virtual)	Indonesia	13
C. Biosafety Leadership Training, April – December 2022 (Monthly Engagement) (Virtual)	Thailand, Laos, Vietnam, Cambodia, Malaysia, Indonesia, Papua New Guinea, Singapore, Timor Leste	19
C. Laboratory Refresher Proficiency Test Workshop, Denpasar, Indonesia 4 – 6 July 2022	Indonesia	20
C. Refresher Proficiency Test Workshop, Yogyakarta, Indonesia, 26-27 July 2022	Indonesia	16
C. Validation and Verification Workshop, Yogyakarta, Indonesia, 12-16 September 2022	Indonesia	22
A & C. Biosafety training, Risk assessments, spills training and chemical safety, Yogyakarta, Indonesia, 12-16 September 2022	Indonesia	22
C. Pathology and Histology Training, Geelong, Australia, 24 October -4 November 2022	Indonesia	2
C. Sequencing and Bioinformatics Training, Geelong, Australia, 24 October -4 November 2022	Indonesia	1
C. Virus isolation and serology for swine diseases technical training, HCMC, Vietnam, 5-9 December 2022	Vietnam	6

TOR8: QUALITY ASSURANCE

18. Does your laboratory have a Quality Management System?

Yes

Quality management system adopted	Certificate scan (PDF, JPG, PNG format)	
ISO 14001	Certificate	BSI ISO 14001 NOV 2022.pdf
ISO 17025	Certificate	NATA ISO 17025 SEP 2022.pdf
ISO 17043	Certificate	NATA ISO 17043 SEP 2022.pdf
ISO 9001	Certificate	BSI ISO 9001 NOV 2022.pdf

WAOH Reference Laboratory Reports Activities 2022

19. Is your quality management system accredited?

Yes

Test for which your laboratory is accredited	Accreditation body
Testing for sterility and freedom from contamination of biological materials (ASFV isolation TM-021)	NATA (ILAC affiliated)
Detection and identification of viruses (Genotyping; Polymerase chain reaction (PCR; TM-204)	NATA (ILAC affiliated)
Examination of biopsy material (Histopathology; Immunohistochemistry; Macroscopic examination; Microscopic examination; TM-018 and TM-019)	NATA (ILAC affiliated)
Necropsy services (Microscopic examination; Anatomical pathology; TM-017)	NATA (ILAC affiliated)
Detection and identification of viruses (Transmission electron microscopy (TEM); Scanning electron microscopy (SEM); TM-013, TM-014 and TM-015)	NATA (ILAC affiliated)
Molecular analysis - Bioinformatic analysis and interpretation (Analysis of DNA alignment; DNA alignment to reference sequence; TM-203)	NATA (ILAC affiliated)
Molecular analysis – Sequencing (Sanger sequencing, PCR)	NATA (ILAC affiliated)
Microbiology - Serology of infection – Microbial antibody and/or antigen detection and/or quantitation (Indirect fluorescent antibody test TM-124)	NATA (ILAC affiliated)
Detection and identification of viruses (ASFV isolation TM-167)	NATA (ILAC affiliated)

20. Does your laboratory maintain a “biorisk management system” for the pathogen and the disease concerned?

Yes

The laboratory has a dedicated Biorisk Management Team (14 Members) who provide specialist advice, monitor and improve Biosafety, Biosecurity and Biocontainment activities and perform maintenance on Biocontainment systems. The team uses a risk analysis approach to management of biological risks for biosafety and biosecurity to inform and determine the policy and procedures that in turn give confidence that the laboratory procedures for each of the biological materials handled by the laboratory pose negligible danger to Australia's animal and human populations. 261 policies and procedures are contained in the annually reviewed ACDP Biorisk Manual consisting of various sections as follows. Section 1 Administration Section 2 PC2 Procedures and Policies Section 3 PC3 Procedures and Policies Section 4 PC4 Procedures and Policies Section 5 Large Animal Facility (LAF) Procedures and Policies Section 6 Personnel and Procedural Controls Section 7 Transport and Storage of Biological Material Section 8 Movement of Material, Equipment and Waste Section 9 Engineering Procedures and Policies Section 10 Microbiological Incident Response Procedures and Policies Section 11 Laboratory Services Group Section 12 Containment Services Group The ACDP biological risk management system has clear and unequivocal commitment by laboratory management, who ensure that roles, responsibilities, resources and authorities related to biological risk management are defined, documented, and communicated to those who manage, perform, and verify work associated with biological agents and toxins in the laboratory. The Biorisk Management Team are audited over 3 days every 6 months by an external security assessment team to provide an independent review of elements affecting ACDP's microbiological and physical security operations and to advise CSIRO senior executive management of any areas of concern or risk. The laboratory aspires to become accredited to ISO 35001:2019 Biorisk management for laboratories and other related organisations.

TOR9: SCIENTIFIC MEETINGS

21. Did your laboratory organise scientific meetings related to the pathogen in question on behalf of WOA?H?

Yes

NATIONAL/ INTERNATIONAL	TITLE OF EVENT	CO-ORGANISER	DATE (MM/YY)	LOCATION	NO. PARTICIPANTS
International	WOAH Regional Laboratory Expert Meeting for African Swine Fever in Asia & the Pacific Geelong, Australia 2nd -4th November 2022	CSIRO ACDP	2022-11-02	Geelong, Australia	45

22. Did your laboratory participate in scientific meetings related to the pathogen in question on behalf of WOA?H?

Yes

Title of event	Date (mm/yy)	Location	Role (speaker, presenting poster, short communications)	Title of the work presented
OIE Pacific partners meeting (Virtual)	2022-05-31	Online	Short communications	Update on capacity building activities in the region from ACDP
2022-01 ASF RL Network meeting	2022-03-16	Online	Short communications	1. Participation in discussion on agenda items and updates on development of ASF Lab Manual
2022-02 ASF RL Network meeting	2022-07-07	Online	Short communications	1. Participation in discussion on agenda items and updates on development of ASF Lab Manual
2022-04 ASF RL Network meeting	2022-11-22	Online	Short communications	1. Participation in discussion on agenda items and updates on development of ASF Lab Manual
WOAH Regional Laboratory Expert Meeting for African Swine Fever in Asia & the Pacific	2022-11-02	Geelong, Australia	Speaker, short communications	1. PoC testing guide. 2. Updating the Asia-Pacific laboratory algorithm. 3. African swine fever virus: Genomics and sequencing 4. The African swine fever disease model at ACDP. 5. Comparing different types of dry swabs for collecting blood from ASFV-infected pigs

TOR10: NETWORK WITH WOAHP REFERENCE LABORATORIES

23. Did your laboratory exchange information with other WOAHP Reference Laboratories designated for the same pathogen or disease?

Yes

24. Are you a member of a network of WOAHP Reference Laboratories designated for the same pathogen?

Yes

PURPOSE OF THE PROFICIENCY TESTS: 1	ROLE OF YOUR REFERENCE LABORATORY (ORGANISER/PARTICIPANT)	NO. PARTICIPANTS	PARTICIPATING WOAHP REF. LABS/ ORGANISING WOAHP REF. LAB.
WOAHP ASF Reference Laboratory Network	Co-chair and participant	16	South Africa, United Kingdom, Canada, United States, China, Australia

25. Did you organise or participate in inter-laboratory proficiency tests with WOAHP Reference Laboratories designated for the same pathogen?

No

26. Did your laboratory collaborate with other WOAHP Reference Laboratories for the same disease on scientific research projects for the diagnosis or control of the pathogen of interest?

Yes

TITLE OF THE PROJECT OR CONTRACT	SCOPE	NAME(S) OF RELEVANT WOAHP REFERENCE LABORATORIES
Comparative evaluation of PCR diagnostic tests for the detection of ASFV virus DNA in oral fluids and whole blood (US National Pork Board; NPB #19-209)	Compare commercially available PCR kits for testing oral fluids and whole blood from experimentally infected pigs; led by Kansas State University	National Centre for Foreign Animal Disease, CFIA, Canada

TOR11: OTHER INTERLABORATORY PROFICIENCY TESTING

27. Did your laboratory organise or participate in inter-laboratory proficiency tests with laboratories other than WOAHP Reference Laboratories for the same pathogen?

Yes

Purpose for inter-laboratory test comparisons ¹	Role of your reference laboratory (organizer/participant)	No. participating laboratories	Region(s) of participating WOAHP Member Countries
Harmonising existing test methods for PCR detection of ASFV DNA through the Asia Pacific Regional Proficiency Testing: Swine Diseases PCR panel	Organiser	10	Asia and Pacific
Molecular detection of ASFV by Australian & New Zealand laboratories as part of the Laboratories Emergency Animal Disease Diagnosis and Response (LEADDR) Network	Organiser and participant	8	Asia and Pacific

Detection of ASFV antibodies using an ELISA commercial kit by Australian & New Zealand laboratories as part of the Laboratories Emergency Animal Disease Diagnosis and Response (LEADDR) Network	Organiser and participant	6	Asia and Pacific
European Reference Laboratory for ASF Interlaboratory comparison testing XVIII; to evaluate the ASF diagnostic assays currently available in the National Reference Laboratories, including commercial kits	Participant	40	Africa America Asia and Pacific Europe

TOR12: EXPERT CONSULTANTS

28. Did your laboratory place expert consultants at the disposal of WOA?H?

Yes

KIND OF CONSULTANCY	Location	SUBJECT (FACULTATIVE)
OIE ASF Reference Laboratory network	Virtual/online	Agenda items including establishing regional sub-networks, technical documents on laboratory and field diagnosis, genomics platform, updates on vaccines, relevant activities etc
OIE Pacific partners	Virtual/online	Coordination, advice on ASF training and capacity building initiatives in the Pacific
ad hoc Group	Virtual/online	Planning for the WOA?H Regional Laboratory Expert Meeting for African Swine Fever in Asia & the Pacific
ad hoc Group	Virtual/online	Writing an updated FAO ASF Laboratory Diagnosis manual, in collaboration with WOA?H Reference laboratory network and FAO
Subject matter expert reviewer for WOA?H Validation and Certification of ASF Diagnostic Assay	Desktop	Scientific assessment of a dossier on a ASF Diagnostic field test for the Procedure for WOA?H Validation and Certification

29. Additional comments regarding your report:

No

WOAH Collaborative Centre Reports Activities 2022

Activities in 2022

This report has been submitted : 3 mars 2023 12:57

Centre Information

Title of WOA Collaborating Centre	
Address of WOA Collaborating Centre	
Tel.:	
E-mail address:	
Website:	
Name Director of Institute (Responsible Official):	
Name (including Title and Position) of Head of the Collaborating Centre (WOAH Contact Point):	
Name of the writer:	

TOR1 AND 2: SERVICES PROVIDED

1. Activities as a centre of research, expertise, standardisation and dissemination of techniques within the remit of the mandate given by WOA

Disease control	
Title of activity	Scope
	Development and activation of specialized diagnostic facilities

WOAH Collaborative Centre Reports Activities 2022

- Camel Diseases -

Laboratory Capacity in Genome sequencing	(Genome sequencing techniques) for characterization of pathogens to enable veterinary authority to set plans for prevention and control of camel diseases
Disease control	
Title of activity	Scope
Laboratory Capacity in molecular diagnosis	Increase scope of diagnostic tests and validation of new tests for detection of different pathogens in camel including Para poxvirus, CCHFV, MERS-CoV, Brucella melitensis, Trypanosome evansi
Disease control	
Title of activity	Scope
Isolation/ Identification of viruses, bacteria, fungi and parasites	Several bacteria and viruses were isolated and characterized at the ADAFSA-CC including Brucella melitensis, Pasteurella multocida, Dermatophyte spp., Camel pox viruses, MERS-CoV. Identified blood parasite and gastro-intestinal parasites in camels
Disease control	
Title of activity	Scope
Establishment of a Biobank unit	Collection and storage of clinical biological samples/reference materials (Brucella melitensis, camel pox viruses, MERS-CoV, Trypanosome) and associated clinical data for the development, validation of tests for control of the disease and possible vaccine development
Epidemiology, surveillance, risk assessment	
Title of activity	Scope
Studies on tickborne parasitic diseases (TBD) and acaricide resistance in livestock including dromedary camels	Assess the epidemiological status of TBD Identify factors that contribute to the acaricide resistance in ticks
Training, capacity building	
Title of activity	Scope
Symposium on development of viral vaccines to improve camel health	ADAFSA-CC organized a symposium attended by camel owners from Abu Dhabi Emirate to explain its efforts to develop camel pox and MERS-CoV vaccines aimed to protect camels and promote one health
Training, capacity building	
Title of activity	Scope
	ADAFSA CC organized a two-days training course attended by

WOAH Collaborative Centre Reports Activities 2022

Validation of diagnostic procedures in Vet Labs accordance to WOAHA	participants from UAE, KSA, Bahrain, Jordan, and Egypt on procedures to validate diagnostic tests for livestock and camels according to WOAHA protocols with emphasis on Brucella and camel pox
Training, capacity building	
Title of activity	Scope
Preparation of Histopathology Slides	As part of contribution to the knowledge sharing and capacity building with national partners, a histopathology Slide Set for teaching purposes of Veterinary Pathology was prepared by ADAFSA-CC. These educational slides have been accepted as intellectual property of ADAFSA-CC by UAE Ministry of Economy
Training, capacity building	
Title of activity	Scope
Participation-World Antimicrobial Awareness Week	Oral presentation entitled: "Scientific Basis of Antimicrobial Resistance" was delivered to highlight the role of molecular diagnostic techniques in AMR
Training, capacity building	
Title of activity	Scope
Scientific Lecture on Toxoplasmosis	Educating on the zoonotic importance of the disease as a one health topic to veterinary students of Higher College of Technology
Veterinary medicinal products	
Title of activity	Scope
Evaluation of Veterinary Antiparasitic Drugs Under Field Practice	Aimed at effective control of nematodes of ruminants including camels

TOR3: HARMONISATION OF STANDARDS

2. Proposal or development of any procedure that will facilitate harmonisation of international regulations applicable to the main focus area for which you were designated

Proposal title	Scope/Content	Applicable area
Interlaboratory Comparison (ILC) of PPR testing in	ADAFSA- CC in collaboration with CIRAD and CVRL in Sudan plan to produce hyperimmune serum against PPR in camels and for further collaboration	Laboratory expertise Training and education

WOAH Collaborative Centre Reports Activities 2022

camel	in organizing proficiency tests of PPR in camels	
Interlaboratory Comparison (ILC) Program on diagnostic tests for Camel Diseases	Collaboration with national and international laboratories to share laboratory expertise on diagnosis of: Brucella by RBT Brucella by ELISA Trypanosoma spp. by microscopy Acid Fast Bacilli (AFB) by microscopy	Laboratory expertise
Identification of emerging orthopox viruses	ADAFSA VLD developed and used a simple method to detect and differentiate Orthopoxvirus species using polymerase chain reaction targeting the A-type inclusion protein (ATIP) gene followed by partial genome sequencing	Laboratory expertise

4. Did your Collaborating Centre maintain a network with other WOAHC Collaborating Centres (CC), Reference Laboratories (RL), or organisations designated for the same specialty, to coordinate scientific and technical studies?

Yes

Name of OIE CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose
Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna "Bruno Ubertini"	Italy	Europe MiddleEast	Develop and evaluate an ELISA for the detection of antibodies against camelpox virus
Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale"	Italy	Europe MiddleEast	Molecular characterization of camelpox virus isolated from United Arab Emirates
Centre de coopération internationale en recherche agronomique pour le développement (CIRAD)	France	Europe MiddleEast	To investigate infection of camels by PPR virus and develop diagnostic tools

TOR4 AND 5: NETWORKING AND COLLABORATION

5. Did your Collaborating Centre maintain a network with other WOAHC Collaborating Centres, Reference laboratories, or organisations in other disciplines, to coordinate scientific and technical studies?

Yes

Name of OIE CC/RL/other organisation(s)	Location	Region of networking Centre	Purpose

- Camel Diseases -

Food and Agriculture Organization	Italy	Europe MiddleEast	1. To investigate the potential recombination of MERS-CoV and SARS-CoV-2 or other coronaviruses in camels 2. To investigate SARS-CoV-2 transmission to farm and companion animals in contact with COVID-19 infected humans.
Higher College of Technology (HCT) , United Arab Emirates	UAE	MiddleEast	To assess the epidemiological status of TBD To identify factors that contribute to the acaricide resistance in ticks
Veterinary Pathology Unit, Life Sciences Department AI Ain Zoo	UAE	MiddleEast	To characterise Theileria spp. In N Dam a Gazelles by molecular techniques

TOR6: EXPERT CONSULTANTS

6. Did your Collaborating Centre place expert consultants at the disposal of WOAAH?

Yes

NAME OF EXPERT	KIND OF CONSULTANCY	SUBJECT
Dr. Abdelmalik Khalafalla	Invited speaker	Attended the International Seminar on Emerging and Re-emerging Diseases of camels, organized by ICAR, India held online on 25 April 2022 and delivered a presentation on Emerging Diseases of Dromedary Camels
Dr. Abdelmalik Khalafalla	Invited speaker	Attended the Abu Dhabi Public Health Centre (ADPHC) and Institut Pasteur Infectious Disease Symposium, 03-04 October 2022 and delivered a presentation on One Health Contributions Towards Effective Responses to Emerging Infectious Diseases
Dr. Abdelmalik Khalafalla	Member: ad hoc group on PPR Status of Countries, the World Organization for Animal Health (WOAH) Paris, France	Participated in the group meeting which took place virtually from 19 to 21 October 2022.
Dr. Abdelmalik Khalafalla	Member: The PPR Global Research and Expertise Network (PPR-GREN) Bureau, FAO/WOAH	Attended the Launch of the Peste des petits ruminants (PPR) Global Eradication Programme Blueprint, which was held in FAO Headquarters, Rome, on the 4th of November 2022.
		Attended the 1st International Salon on Camel Pathology held in Ourgala, Algeria 15-17

WOAH Collaborative Centre Reports Activities 2022

Dr. Abdelmalik Khalafalla	Invited keynote speaker	November 2022 and delivered a presentation on Infectious Diseases of Dromedary camels and the Role of the Collaborating Centre
Dr. Abdelmalik Khalafalla	Member: The PPR Global Research and Expertise Network (PPR-GREN) Bureau, FAO/WOAH	Attended the 5th meeting of the PPR Global Research and Expertise Network (PPR-GREN) which took place in a hybrid arrangement from 7-9 December 2022 in Montpellier, France
Asma Abdi Mohamed Shah	Shared Experiences	Presented a lecture on the experiences of the ADAFSA-collaborating centres with the rules of the Performance Veterinary Services (PVS)

TOR7: SCIENTIFIC AND TECHNICAL TRAINING

7. Did your Collaborating Centre provide advice/services to requests from Members in your main focus area?

8. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by WOAH, to personnel from WOAH Members?

Yes

a) Technical visit : 25

b) Seminars : 0

c) Hands-on training courses: 60

d) Internships (>1 month) : 1

TYPE OF TECHNICAL TRAINING PROVIDED (A, B, C OR D)	CONTENT	COUNTRY OF ORIGIN OF THE EXPERT(S) PROVIDED WITH TRAINING	NO. PARTICIPANTS FROM THE CORRESPONDING COUNTRY
A	Visit of the Camel Middle East Network (CAMENET) Steering Committee together with FAO and WOAH representatives to understand the various capabilities of the Veterinary laboratories	Gulf Cooperation Council	9
A	Technical Visit of Delegation from the Ministry of Animal Resources Visit to understand the various capabilities of the Veterinary laboratories	Sudan	5
A	Technical meeting with CIRAD, France and Central Veterinary Research Lab, Sudan for collaboration in organizing proficiency testing of PPR in camels	UAE	7

WOAH Collaborative Centre Reports Activities 2022

- Camel Diseases -

A	Technical Visit of Sinopharm experts	China	4
C	Training Course on Diagnostic Method Validation in Veterinary Laboratories	UAE, Egypt, KSA, Jordan	60
D	Hands-on Training on diagnostic protocols with special emphasis in molecular biology and sequencing for Dr. Housseem Samari 05-16 December 2022	Africa, Algeria	1

TOR8: SCIENTIFIC MEETINGS

9. Did your Collaborating Centre organise or participate in the organisation of scientific meetings related to your main focus area on behalf of WOA?H?

Yes

NATIONAL/INTERNATIONAL	TITLE OF EVENT	CO-ORGANISER	DATE (MM/YY)	LOCATION	NO. PARTICIPANTS
International	4th Camel Middle East Network (CAMENET) Steering Committee	WOAH sub-regional office for GCC	2022-11-21	Abu Dhabi, UAE	9
International	1st International Salon on Camel Pathology	University of Kasdi Mirbah, Ourgala	2022-11-17	Algeria	100
International	5th Meeting - Peste des Petits Ruminants Global Research and Expertise Network (PPR-GREN)	WOAH, FAO	2022-12-09	France	40

TOR9: DATA AND INFORMATION DISSEMINATION

10. Publication and dissemination of any information within the remit of the mandate given by WOA?H that may be useful to Members of WOA?H

a) Articles published in peer-reviewed journals:

2021-2022- Published 6
2022

1-Abdelwahab GE, Ishag HZA, Al Hammadi ZM, Al Yammahi SMS, Mohd Yusof MFB, Al Yassi MSY, Al Neyadi SSA, Al Mansoori AMA, Al Hamadi FHA, Al Hamadi IAS, Hosani MAAA, Mohammed Al Muhairi SS. Antibiotics Resistance in Escherichia coli Isolated from Livestock in the Emirate of Abu Dhabi, UAE, 2014-2019. *Int J Microbiol.* 2022 Apr 26;2022:3411560. doi: 10.1155/2022/3411560. PMID: 35519508; PMCID: PMC9064518.

2- Habeeba S, Khan RA, Zackaria H, Yammahi S, Mohamed Z, Sobhi W, AbdelKader A, Alhosani MA, Muhairi SA. Comparison of Microscopy, Card Agglutination Test for *Trypanosoma Evansi*, and Real-time PCR in The Diagnosis of Trypanosomosis in Dromedary Camels of The Abu Dhabi Emirate, UAE. *J Vet Res.* 2022 Mar 25;66(1): 125- 129. doi: 10.2478/jvetres-2022-0002. PMID: 35582483; PMCID: PMC8959682.

3- Book chapter:

Ishag H, Abdelwahab G, Al Hammadi Z, et al. (2022) Current Situation of *Escherichia coli* Antibiotic Resistance in Food-producing Animals, Wild Animals, Companion Animals, and Birds: One Health Perspectives. *Escherichia coli Infections - An Update [Working Title]*. IntechOpen. DOI: 10.5772/intechopen.108896 <http://dx.doi.org/10.5772/intechopen.108896>

2021

4. El Tigani-Asil ETA, Blanda V, Abdelwahab GE, Hammadi ZMA, Habeeba S, Khalafalla AI, Alhosani MA, La Russa F, Migliore S, Torina A, Loria GR, Al Muhairi SS. Molecular Investigation on Tick-Borne Hemoparasites and *Coxiella burnetii* in Dromedary Camels (*Camelus dromedarius*) in Al Dhafra Region of Abu Dhabi, UAE. *Animals.* 2021; 11(3):666. <https://doi.org/10.3390/ani11030666>

5. Terab AMA, Abdel Wahab GED, Ishag HZA, Khalil NAH, El Tigani-Asil ETA, Hashem FM, Khalafalla AI, Shah AAM, Al Muhairi SSM. Pathology, bacteriology and molecular studies on caseous lymphadenitis in *Camelus dromedarius* in the Emirate of Abu Dhabi, UAE, 2015-2020. *PLoS One.* 2021 Jun 8;16(6):e0252893. doi: 10.1371/journal.pone.0252893. PMID: 34101753; PMCID: PMC8186769.

6. Abdelmalik I, Khalafalla , Mansour F, Hussein.2021. *Infectious Diseases of Dromedary Camels: A Concise Guide 1st ed.*

b) International conferences:

3

1- Abdelmalik Khalafalla (2022). *Emerging and re-emerging diseases of dromedary camels. Proceedings of the ICAR International Seminar on Emerging and re-emerging diseases of camels. 25 April 2022, online.*

2- Hassan Zackaria Ishag (2022). *Characterization of PPR virus in domestic and wild small ruminants in United Arab Emirates in 2021. 5th meeting of the PPR Global Research and Expertise Network (PPR-GREN) which took place in a hybrid arrangement from 7-9 December 2022 in Montpellier, Fran*

3- Asma Abdi Mohamed Shah (2022). *WOAH Collaborating Centre and its Role in Enhancing Biosecurity". First International Saudi Veterinary Society conference, Prospects of Veterinary Medicine in the Kingdom of Saudi Arabia (Challenges and Chances) 11-13 /10/2022 , Saudi Arabia*

c) National conferences:

4

1- Ghada Abdel Wahab (2022). *"One Health Approach - Experiences of Abu Dhabi Agriculture and Food Safety Authority" 16th Dubai International food safety conference 1-3rd Nov.2022*

2- Asma Abdi Mohamed Shah (2022) *"One Health Approach: ADAFSA Collaborating Centre for Camel Diseases and its Role in Promoting the One Health". 16th Dubai International food safety conference 1-3rd Nov.2022*

3- Abdelmalik Khalafalla (2022). *One Health Contributions Towards Effective Responses to Emerging Infectious Diseases. Proceedings of the Abu Dhabi Infectious Disease Symposium organized jointly by the Abu Dhabi Public Health Centre (ADPHC) and Institut Pasteur, 03-04 October 2022*

4- Ghada Abdel Wahab (2022). *"Food Borne Diseases"- Abu Dhabi International Food Exhibition 6-8 December 2022, Dubai, United Arab Emirates.*

d) Other (Provide website address or link to appropriate information):

In response to customer requirements, community services and biosecurity concern ADAFSA -CC increased the scope of diagnostic services to cover disease diagnosis in other food producing animals including cattle, small ruminants & poultry as well as pets and wildlife animals to control epidemic and zoonotic diseases that may affect public health and biosecurity system.

Hence to achieve ADAFSA scope on biosafety and biosecurity, ADAFSA-CC activated diagnostic tests for diseases in cattle, sheep, goats, poultry and pets.

Deliverables: Publishing of:

1-Ishag HZA, Terab AMA, El Tigani-Asil ETA, Bensalah OK, Khalil NAH, Khalafalla AI, Al Hammadi ZMAH, Shah AAM, Al Muhairi SSM. Pathology and Molecular Epidemiology of Fowl Adenovirus Serotype 4 Outbreaks in Broiler Chicken in Abu Dhabi Emirate, UAE. *Veterinary Sciences*. 2022; 9(4): 154. <https://doi.org/10.3390/vetsci9040154>

11. What have you done in the past year to advance your area of focus, e.g. updated technology?

1- Based on well experience on adoption of quality system VLD was nominated as an OIE collaborating Centre for quality management system in the region. Furthermore, and for outstanding technical capabilities, preparedness, and high response for emergencies ADAFSA veterinary laboratory designated as national reference laboratory in MERS CoV and Crimean Congo Haemorrhagic Fever (CCHF).

2- ADAFSA-CC have published scientific papers and book chapter in peer-reviewed journals, and one book (*Infectious Diseases of Dromedary Camels- a concise review*). The publications were addressed in diagnosis of camel diseases using advanced technologies as well as on diagnosis of zoonotic diseases to strengthen one health concept and biosecurity. An atlas illustrating the clinical behaviour and pathology of major camel diseases which strongly help in veterinary education for undergraduate, postgraduate and researchers worldwide was published in 2020.

3- Updated the sequencing facilities that enables diagnosis of various disease pathogens.

12. Additional comments regarding your report:



**WORLD ORGANISATION
FOR ANIMAL HEALTH (OIE)**

**REGIONAL AQUATIC ANIMAL
DISEASE YEARBOOK**

2013

(Asian and Pacific Region)



PUBLISHED BY THE OIE REGIONAL REPRESENTATION FOR ASIA AND THE PACIFIC

FOOD SCIENCE BLDG. 5F, THE UNIVERSITY OF TOKYO, 1-1-1 YAYOI, BUNKYO-KU, TOKYO 113-8657, JAPAN
(TEL: +81-3-5805-1931; FAX: +81-3-5805-1934 - rr.asiapacific@oie.int - <http://www.rr-asia.oie.int>)

AUSTRALIA												
Name of disease	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DISEASES PREVALENT IN THE REGION												
FINFISH DISEASES												
OIE-listed diseases												
Epizootic haematopoietic necrosis	-(2012)	-(2012)	-(2012)	-(2012)	-(2012)	-(2012)	-(2012)	-(2012)	-(2012)	-(2012)	-(2012)	-(2012)
Infectious haematopoietic necrosis	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
Spring viraemia of carp (SVC)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
Viral haemorrhagic septicaemia (VHS)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
Epizootic ulcerative syndrome (EUS)	-(2012)	-(2012)	-(2012)	-(2012)	-(2012)	-(2012)	-(2012)	+	-(2013)	+	-(2013)	+
Red seabream iridoviral disease (RSID)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
Koi herpesvirus disease (KHV)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
Non OIE-listed diseases												
Grouper iridoviral disease	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
Viral encephalopathy and retinopathy	-(2012)	-(2012)	+	-(2013)	-(2013)	+	-(2013)	-(2013)	-(2013)	-(2013)	-(2013)	+
Enteric septicaemia of catfish	(2011)	(2011)	(2011)	(2011)	(2011)	(2011)	(2011)	(2011)	(2011)	(2011)	(2011)	(2011)
MOLLUSC DISEASES												
OIE-listed diseases												
Infection with <i>Bonamia exitiosa</i>	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
Infection with <i>Parkinsonia olseni</i>	-(2011)	-(2011)	-(2011)	-(2011)	+	-(2013)	-(2013)	-(2013)	-(2013)	-(2013)	-(2013)	-(2013)
Infection with abalone herpes-like virus	-(2011)	-(2011)	-(2011)	-(2011)	-(2011)	-(2011)	-(2011)	-(2011)	-(2011)	-(2011)	-(2011)	-(2011)
Infection with <i>Xonchelliotia californiensis</i>	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
Non OIE-listed diseases												
Infection with <i>Marteillicoccus chungmuensis</i>	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
Acute viral necrosis (in scallops)	***	***	***	***	***	***	***	***	***	***	***	***
Akoya oyster disease	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
CRUSTACEAN DISEASES												
OIE-listed diseases												
Taura syndrome (TS)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
White spot disease (WSD)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
Yellowhead disease (YHD)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
Infectious hypodermal and haematopoietic necrosis (IHHN)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)
Infectious myonecrosis (IMN)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
White tail disease (WTV)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)
Necrotising hepatopancreatitis (NHP)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
Non OIE-listed diseases												
Milky haemolymph disease of spiny lobster (<i>Panulirus</i>)	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
<i>Monodon</i> slow growth syndrome	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
Acute hepatopancreatic necrosis syndrome (AHPNS)	***	***	***	***	***	***	***	***	***	***	***	***
AMPHIBIAN DISEASES												
OIE-listed diseases												
Infection with Ranavirus	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)	-(2008)
Infection with <i>Batrachochytrium dendrobatidis</i>	-(2012)	-(2012)	-(2012)	-(2012)	+	-(2013)	-(2013)	-(2013)	-(2013)	-(2013)	-(2013)	-(2013)
ANY OTHER DISEASES OF IMPORTANCE												
Virus isolated from Atlantic salmon				-(2012)	-(2012)	+	-(2013)	-(2013)	+			

AQUATIC ANIMAL DISEASE REPORT - 2022														Level of diagnosis	Epidemiological comment numbers	
Item	Disease status/occurrence code a/b/															
Country/territory: Australia																
DISEASES PREVALENT IN THE REGION																
FINFISH DISEASES																
OIE-listed diseases																
1. Infection with epizootic haematopoietic necrosis virus	(-2021)	+(2022)	(-2022)	(-2022)	(-2022)	(-2022)									III	1
2. Infection with infectious haematopoietic necrosis virus	000	000	000	000	000	000										
3. Infection with spring viraemia of carp virus	000	000	000	000	000	000										
4. Infection with viral haemorrhagic septicaemia virus	000	000	000	000	000	000										
5. Infection with <i>Aphanomyces trivittatus</i> (EUS)	+(2022)	(-2022)	(-2022)	+(2022)	+(2022)	+(2022)									II	2
6. Infection with red sea bream iridovirus	000	000	000	000	000	000										
7. Infection with <i>Ictal herpesvirus</i>	000	000	000	000	000	000										
Non OIE-listed diseases																
8. Groupers iridoviral disease	000	000	000	000	000	000										
9. Viral encephalopathy and retinopathy	(-2020)	(-2020)	+(2022)	+(2022)	(-2022)	(-2022)									III	3
10. Enteric septicaemia of catfish	(-2014)	(-2014)	(-2014)	(-2014)	(-2014)	(-2014)										4
11. Carp Edema Virus Disease	***	***	***	***	***	***										
12. Tilapia lake virus (TiLV)	000	000	000	000	000	000										
MOLLUSC DISEASES																
OIE-listed diseases																
1. Infection with <i>Bonamia exitiosa</i>	(-2019)	(-2019)	(-2019)	(-2019)	(-2019)	(-2019)										5
2. Infection with <i>Perkinsus olseni</i>	(-2021)	(-2021)	(-2021)	+(2022)	(-2022)	(-2022)										6
3. Infection with abalone herpesvirus	+(2022)	(-2022)	(-2022)	(-2022)	(-2022)	(-2022)									III	7
4. Infection with <i>Xenohalotis californiensis</i>	000	000	000	000	000	000										
5. Infection with <i>Bonamia ostreae</i>	000	000	000	000	000	000										
Non OIE-listed diseases																
6. Infection with <i>Martinsidax chongnensis</i>	000	000	000	000	000	000										
7. Acute viral necrosis (in scallops)	***	***	***	***	***	***										
CRUSTACEAN DISEASES																
OIE-listed diseases																
1. Infection with Taura syndrome virus	000	000	000	000	000	000										
2. Infection with white spot syndrome virus	(-2020)	(-2020)	(-2020)	(-2020)	(-2020)	(-2020)										8
3. Infection with yellow head virus genotype 1	000	000	000	000	000	000										
4. Infection with infectious hypodermal and haematopoietic necrosis virus	(-2020)	(-2020)	(-2020)	(-2020)	(-2020)	(-2020)										9
5. Infection with infectious myonecrosis virus	000	000	000	000	000	000										
6. Infection with <i>Macrobrachium rosenbergii</i> nodavirus (White Tail disease)	(-2008)	(-2008)	(-2008)	(-2008)	(-2008)	(-2008)										10
7. Infection with <i>Hepatobacter penaei</i> (Necrotising hepatopancreatitis)	000	000	000	000	000	000										
8. Acute hepatopancreatic necrosis disease (AHPND)	000	000	000	000	000	000										
9. Infection with <i>Aphanomyces aztaci</i> (Crayfish plague)	000	000	000	000	000	000										
Non OIE-listed diseases																
10. Hepatopancreatic Microsporidiosis caused by <i>Enterocytozoon hepatopenaei</i> (HPM-EHP)	000	000	000	000	000	000										
11. Viral covert mortality disease (VCM/D) of shrimps	***	***	***	***	***	***										
12. <i>Syngnathus oiketicus</i> infection	***	***	***	***	***	***										
13. Decapod iridovirus 1 (DIV-1)	000	000	000	000	000	000										
AMPHIBIAN DISEASES																
OIE-listed diseases																
1. Infection with <i>Ranavirus</i> species	(-2008)	(-2008)	(-2008)	(-2008)	(-2008)	(-2008)										11
2. Infection with <i>Batrachochytrium dendrobatidis</i>	+(2022)	+(2022)	+(2022)	+(2022)	+(2022)	+(2022)									III	12
3. Infection with <i>Batrachochytrium salamandrivorans</i>	000	000	000	000	000	000										

Prepared by: Yuko Hood
 Name: Yuko Hood
 Position: Principal Science Officer, OIE Focal Point for Aquatics
 Signature: Yuko Hood
 Date: 15/09/22

Submitted by (OIE Delegate):
 Name: Dr Beth Cookson
 Position: Acting Australian Chief Veterinary Officer
 Signature: Beth Cookson
 Date: 15/09/2022

ANY OTHER DISEASES OF IMPORTANCE

DISEASES PRESUMED EXOTIC TO THE REGION*

LISTED BY THE OIE

Fishfish: Infection with HPR-deleted or HPR0 salmon anaemia virus, Infection with salmon pancreas disease virus, Infection with *Gyrodactylus salaris*

Molluscs: Infection with *Marteilia refringens*, *Perkinsus marinus*

NOT LISTED BY THE OIE

Fishfish: Chlamydiosis was disease

* Please use the following occurrence code

Occurrence code and symbol	Definition	Occurrence code and symbol	Definition
Disease present =	The disease is present with clinical signs in the whole country (in domestic species or wildlife)	Disease absent -	The disease was absent in the country during the reporting period (in domestic species or wildlife)
Disease limited to one or more zones/compartments (in domestic species or wildlife) =Q	The disease is present with clinical signs, and limited to one or more zones/compartments (in domestic species or wildlife)	Never reported 0000	The disease has "never been reported" (historically absent) for the whole country in domestic species and wildlife
Infection/infection =I	Confirmed infection or infection using diagnostic tests, but no clinical signs observed (in domestic species or wildlife)	No information ***	No information is available regarding the presence or the absence of this disease during the reporting period (in domestic species or wildlife)
Infection/infection limited to one or more zones/compartments =IQ	Confirmed infection or infection using diagnostic tests, but no clinical signs observed and limited to one or more zones/compartments (in domestic species or wildlife)		
Disease suspected +	The presence of the disease was suspected but not confirmed (in domestic species or wildlife)		
Disease suspected but not confirmed and limited to one or more zones/compartments =IQ	The presence of the disease was suspected but not confirmed and limited to one or more zones/compartments (in domestic species or wildlife)		

If there is any change on historical data, please highlight in RED

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (annual clinical signs or lesions); 4) Pathogen (isolated/sex typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc.); 7) Size of infected areas or names of infected areas; 8) Preventive control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (article in journals/website, etc.) and 11) Unknown diseases: describe details as much as possible)


Comment No.	
1	Epidemic haematopoietic necrosis was not reported this period despite passive surveillance in New South Wales (last reported February 2022), Victoria (last reported December 2021), the Australian Capital Territory (last reported 2011), and South Australia (last reported 1992). Passive surveillance and never reported in the Northern Territory, Queensland, Tasmania and Western Australia.
2	Infection with <i>Aphanomyces invadans</i> (EUS) 1. Reported by Queensland in April 2022, based on passive surveillance. Reported in NSW in May and June 2022 based on passive surveillance. 2. Species affected – QLD, wild abate snails (<i>Hydrobia ulvae</i>) and bony brans (<i>Neomysis integer</i>), NSW, yellowfin bream (<i>Acanthopagrus australis</i>). 3. Clinical signs – QLD, skin ulcerations of the head or on the side of the body. NSW, not available. 4. Pathogen – <i>Aphanomyces invadans</i> . 5. Mortality rate – QLD and NSW – Unknown. 6. Economic loss – QLD and NSW – Not applicable. 7. Geographic extent – QLD, west of Mermaid Waters, Gold Coast, NSW, Hastings River and Myall River, and estuarine waterways in northern NSW, near Griffith. 8. Containment measures – QLD and NSW – Not applicable. 9. Laboratory confirmation – QLD and NSW – Histopathology. 10. Publications – Nil. Infection with <i>Aphanomyces invadans</i> was not reported this period despite passive surveillance in Western Australia (last reported December 2021), the Northern Territory (last reported 2017), Victoria (last reported 2012) and South Australia (last reported 2008). Passive surveillance and never reported in Tasmania. No information available this period in the Australian Capital Territory.
3	Viral encephalopathy and retinitis 1. Reported by Tasmania in April 2022, based on targeted surveillance. 2. Species affected – Opfermannia: sampling of wild stock garfish (<i>Brama brama</i>) and kahawai (<i>Atriplex australis</i>). 3. Clinical signs – Nil. 4. Pathogen – Betanodavirus. 5. Mortality rate – Not applicable. 6. Economic loss – Not applicable. 7. Geographic extent – Tasmania. 8. Containment measures – Not applicable. 9. Laboratory confirmation – PCR. 10. Publications – Nil. Viral encephalopathy and retinitis was not reported this period despite passive surveillance in Queensland (last reported March 2022), the Northern Territory (last reported December 2021), New South Wales (last reported December 2021), Western Australia (last reported 2013) and South Australia (last reported 2010). Never reported in Victoria and the Australian Capital Territory.
4	Enteric septicemia of shellfish (infection with <i>Edwardsiella ictaluri</i>) was not reported this period despite passive surveillance and never reported in New South Wales, South Australia, Victoria and Western Australia. No information available this period in the Australian Capital Territory. It was reported from clinically normal fish from a single river in Queensland (last reported 2014), the only occurrence of <i>E. ictaluri</i> in wild fish populations in Australia. Active surveillance throughout Northern Australia has found no evidence of <i>E. ictaluri</i> in any other wild fish populations. <i>E. ictaluri</i> has been detected previously in association with imported ornamental fish including the Northern Territory in a closed aquarium (last reported 2011), and in PC2 containment for shellfish in Tasmania (last reported 2001) and Queensland (last reported 2008).
5	Infection with <i>Bovine ehrlichiosis</i> was not reported this period despite targeted surveillance in Western Australia (last reported 2017), passive surveillance in South Australia (last reported 2019) and Victoria (last reported 2016). Passive surveillance and never reported in Queensland, New South Wales, Tasmania and the Northern Territory. No information available for the Australian Capital Territory (no marine water responsibility).

6	<p>Infection with <i>Perkinsus olseni</i></p> <ol style="list-style-type: none"> 1. Reported by South Australia in April 2022, based on passive surveillance. 2. Species affected – Wild abalone 3. Clinical signs – Disseminated lesions consistent with <i>Perkinsus olseni</i> infection 4. Pathogen – <i>Perkinsus olseni</i> 5. Mortality rate – 0% 6. Economic loss – Unknown 7. Geographic extent – Taylors Island, Eyre Peninsula 8. Containment measures – Commercial fishing avoided in the area. 9. Laboratory confirmation – PCR by the Australian Centre for Disease Preparedness. 10. Publications – Nil <p>Infection with <i>Perkinsus olseni</i> was not reported this period despite passive surveillance in New South Wales (last reported 2005), Victoria (last reported 2015), Queensland (last reported 2014) and Western Australia (last reported 2021). Passive surveillance and never reported in the Northern Territory, Queensland, South Australia, and Western Australia. No information available for the Australian Capital Territory (no marine water responsibility).</p>
7	<p>Infection with abalone herpesvirus (abalone viral ganglioneuritis) was not reported this period despite passive surveillance in Victoria (last reported January 2022), New South Wales (last reported May 2021), Tasmania (last reported 2011). Passive surveillance and never reported in the Northern Territory, Queensland, South Australia, and Western Australia. No information available for the Australian Capital Territory (no marine water responsibility).</p>
8	<p>Infection with white spot syndrome virus (white spot disease) was not reported this period despite active and passive surveillance in Queensland (last reported in May 2020). Never reported despite active and passive surveillance in New South Wales, South Australia, Western Australia, the Northern Territory and Victoria. Never reported in Tasmania despite passive surveillance. No information available for the Australian Capital Territory (no marine water responsibility).</p>
9	<p>Infection with infectious hypodermal and haematopoietic necrosis virus was not reported this period in Northern Territory (last reported in October 2020), Queensland despite passive surveillance (last reported in April 2020). Passive surveillance and never reported in New South Wales, South Australia, Victoria and Western Australia. No information available for the Australian Capital Territory (no marine water responsibility) and Tasmania (susceptible species not present).</p>
10	<p>Infection with <i>Microbrachyium ranarum</i> (white tail disease) was not reported this period despite passive surveillance in Queensland (last reported 2005). Passive surveillance and never reported in the Australian Capital Territory, New South Wales, the Northern Territory, South Australia, Victoria and Western Australia. No information available this period from Tasmania (susceptible species not present).</p>
11	<p>Infection with <i>Ranavirus</i> species was not reported this period despite passive surveillance in the Northern Territory (last reported 2008, prior to official reporting for <i>Ranavirus</i>), Victoria (last reported 2016), Queensland (last reported 2018) and Western Australia (last reported 2013). Passive surveillance and never reported in New South Wales, South Australia and Tasmania. No information available this period in the Australian Capital Territory.</p>
12	<p>Infection with <i>Batrachochytrium dendrobatidis</i></p> <ol style="list-style-type: none"> 1. Reported by Victoria in April 2022, based on passive surveillance. Reported by NSW in June 2022 based on passive surveillance. 2. Species affected – VIC: unknown, NSW: <i>Litoria caerulea</i>, <i>Limodynastes parvii</i>, <i>Litoria caerulea</i> 3. Clinical signs – VIC and NSW – Not applicable 4. Pathogen – <i>Batrachochytrium dendrobatidis</i> 5. Mortality rate – VIC and NSW – Unknown 6. Economic loss – Not applicable 7. Geographic extent – Not applicable 8. Containment measures – Not applicable 9. Laboratory confirmation – PCR 10. Publications – Nil <p>Infection with <i>Batrachochytrium dendrobatidis</i> was not reported this period despite passive surveillance in, Tasmania (last reported March 2022), South Australia (last reported 2020), Queensland (last reported 2018), and Western Australia (last reported 2008). Passive surveillance and never reported in the Northern Territory and the Australian Capital Territory.</p>
<p>2. New aquatic animal health regulations introduced within past six months (with effective date):</p>	

Analysis of the Regional Aquatic Animal Disease Reports

Alpha Cheng 鄭昉苓
Chinese, Taipei

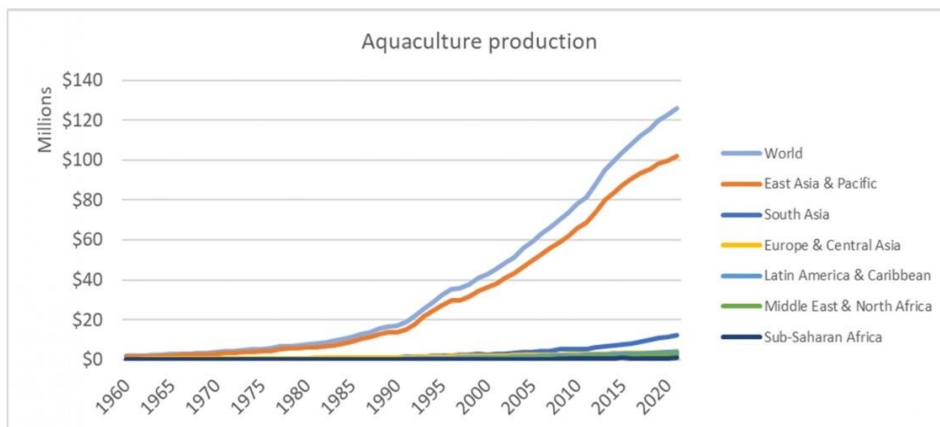
11.2023
Tokyo, Japan



World Organisation for Animal Health
Founded as OIE

Aquaculture in Asia-Pacific region

2

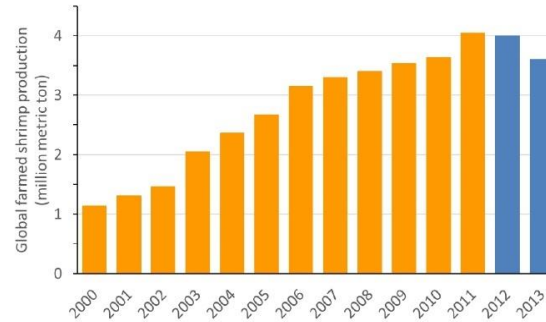


Data source: Food and Agriculture Organization

Aquaculture in Asia- Pacific region

3

- Total global consumption – 8 million tons
- Farmed shrimp – 57%
- Major producers
 - China
 - Vietnam
 - Thailand



Data source: Food and Agriculture Organization

WOAHRRAP Regional Aquatic Animal Disease Report

4

Regional Aquatic Animal Disease Report



Supported by



World Organisation for Animal Health



Food and Agriculture Organization of the United Nations



Network of Aquaculture Centres in Asia-Pacific

[Regional Aquatic Animal Disease Report](#)
[Quarterly Aquatic Animal Disease Reports \(QAAD\)](#) until end of 2020
[Regional Aquatic Animal Disease Report](#) from 2021

Members

5

- No. of WOA Member countries/territories in AP region: **34** (Iran and Iraq included)
- No. of NACA Member countries territories : **19** (Saudi Arabia included)
- No. of Both WOA and NACA Members: **18** (Iran and Saudi Arabia included)
- No. of countries/ territories submitted Regional Aquatic Animal Disease Report from 2013 to 2022: **27** (Data resource: <https://rr-asia.woah.org/en/projects/qaad-reports/>)

Countries/ territories submitted Regional Aquatic Animal Disease Reports

6

MORE from 2013 to 2022 :

Countries/Territories	No. of Reports
Australia*	31
Hong Kong*	28
India*	28
Myanmar*	28
Singapore	28
Vietnam*	27
Chinese Taipei	26
New Zealand	26
Philippines*	25
New Caledonia	23

LESS from 2013 to 2022:

Countries/Territories	No. of Reports
Afghanistan	0
Cambodia*	0
Fiji	0
Iraq*	0
Korea (Dem People's Rep. of)	0
Micronesia (Federated States of)	0
Pakistan*	0
Papua New Guinea	0
Timor Leste	0
Laos*	2

* NACA member

Data resource: <https://rr-asia.woah.org/en/projects/qaad-reports/>

Countries/ territories submitted WAHIS monitoring system SMRs⁷

MORE from 2013 to 2022 :

Countries/Territories	No. of Reports
Afghanistan	20
Australia*	20
Bangladesh*	20
China (People's Rep. of)*	20
Chinese Taipei	20
Hong Kong*	20
Iraq	20
Japan	20
Korea (Rep. of)	20
New Caledonia	20
New Zealand	20
Philippines*	20
Sri Lanka*	20
Thailand*	20
Vietnam*	20

* NACA member

Data resource: <https://wahis.woah.org/#/dashboards/country-or-disease-dashboard>

LESS from 2013 to 2022:

Countries/Territories	No. of Reports
Laos*	0
Timor Leste	0
Cambodia*	2
Korea (Dem People's Rep. of)	4
Fiji	8
Indonesia*	10
Malaysia*	10
Bhutan	12
India*	12
Maldives*	12
Mongolia	12
Pakistan*	12

Changes in the list of the aquatic animal diseases in Regional Aquatic Animal Disease Reports⁸

2013	AUSTRALIA											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DISEASES PREVALENT IN THE REGION												
Viral diseases												
Bacterial diseases												
Protozoan diseases												
Other diseases												
Non-OIE listed diseases												
Non-OIE listed diseases (continued)												
DISEASES PREVALENT IN THE REGION												
Viral diseases												
Bacterial diseases												
Protozoan diseases												
Other diseases												
Non-OIE listed diseases												
Non-OIE listed diseases (continued)												

2022	AUSTRALIA											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DISEASES PREVALENT IN THE REGION												
Viral diseases												
Bacterial diseases												
Protozoan diseases												
Other diseases												
Non-OIE listed diseases												
Non-OIE listed diseases (continued)												
DISEASES PREVALENT IN THE REGION												
Viral diseases												
Bacterial diseases												
Protozoan diseases												
Other diseases												
Non-OIE listed diseases												
Non-OIE listed diseases (continued)												

Data resource: <https://rr-asia.woah.org/en/projects/qaad-reports/>

 **Changes in the list of the aquatic animal diseases in Regional Aquatic Animal Disease Report ⁹**

Category		2013	2022	
Finfish diseases	WOAH-listed	7	8	+14%
	Non-WOAH-listed	3	4	+33%
	Total	10	12	+20%
Mollusc diseases	WOAH-listed	4	5	+25%
	Non-WOAH-listed	3	2	-33%
	Total	7	7	±0%
Crustacean diseases	WOAH-listed	7	10	+43%
	Non-WOAH-listed	3	3	±0%
	Total	10	13	+30%
Amphibian diseases WOA-listed		2	3	+50%

Data resource: <https://rr-asia.woah.org/en/projects/qaad-reports/>

 **Aquatic animal diseases reported from 2020 to 2022 in Regional Aquatic Animal Disease Report ¹⁰**

Category		No.	Countries/Territories
Finfish diseases	WOAH-listed	26	Chinese Taipei, India, Australia
	Non-WOAH-listed	40	Australia, Chinese Taipei, India, Vietnam, New Calendonia
	Total	66 (25%)	
Mollusc diseases	WOAH-listed	18	Australia, India, New Zealand
	Non-WOAH-listed	1	New Zealand
	Total	19 (7%)	
Crustacean diseases	WOAH-listed	98	Chinese Taipei, India, Philippine, Thailand, Vietnam
	Non-WOAH-listed	31	Chinese Taipei, India, Philippine, Thailand
	Total	129 (49%)	
Amphibian diseases WOA-listed		9 (3%)	Australia, New Calendonia
Any other diseases of importance		43 (16%)	Bangladesh, Singapore

Data resource: <https://rr-asia.woah.org/en/projects/qaad-reports/>

- EIOS / Rumor tracking
- [Asia-Pacific Aquatic Animal Health Network \(AP AquaNet \)](#)
 - Capacity building
- Antimicrobial resistance (AMR) and Antimicrobial Use (AMU)

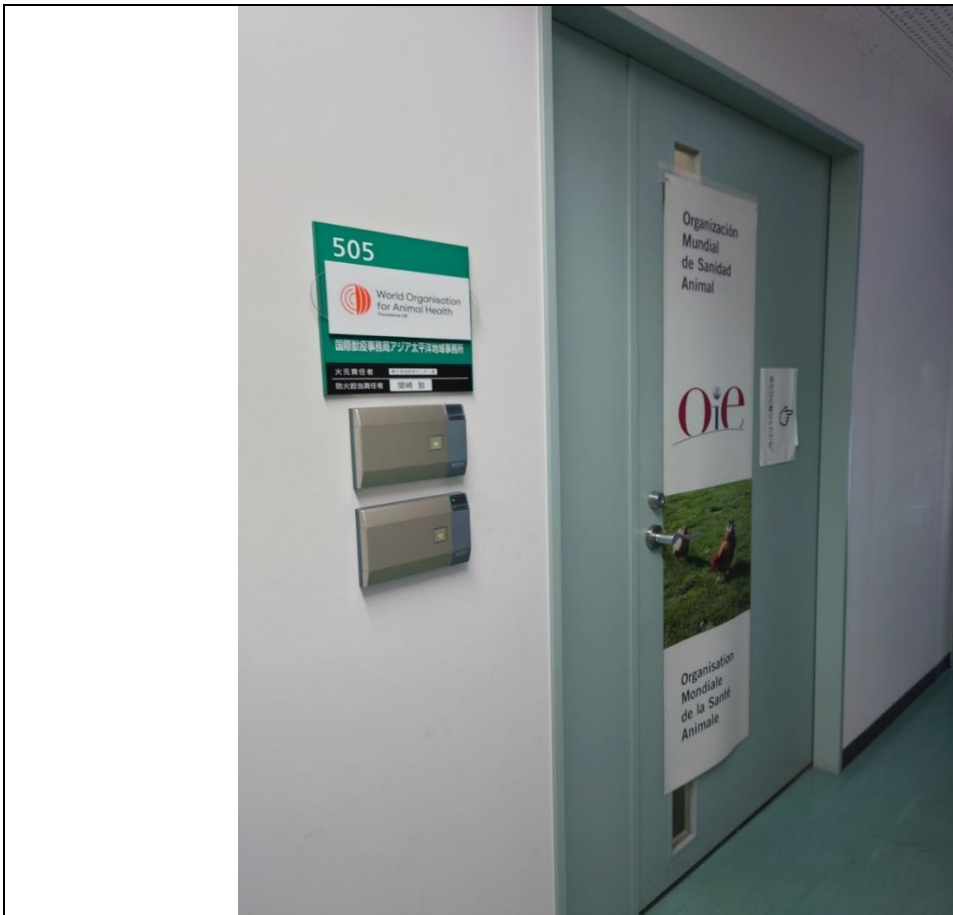
- NACA System interconnection with WAHIS

Thank you !

Contact information

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klm0818@outlook.com

柒、研習照片



照片 1：
東京局位於東京
大學食品科學大
樓 5 樓，照片為
東京局辦公室門
口。



照片 2：
9 月中旬至北海
道大學協助東京
局舉辦會議，並
參加分組討論。



照片 3：
東京局例行線上
Staff meeting
合照。
(Dr. Myint 返
回緬甸前最後一
次參加 Staff
meeting)



照片 4：
WOAH 總部秘書
長 Dr.
Monique Eloit
於 2023 年 9 月
22 日下午至東
京局辦公室訪
視，並與同仁
面對面交流。



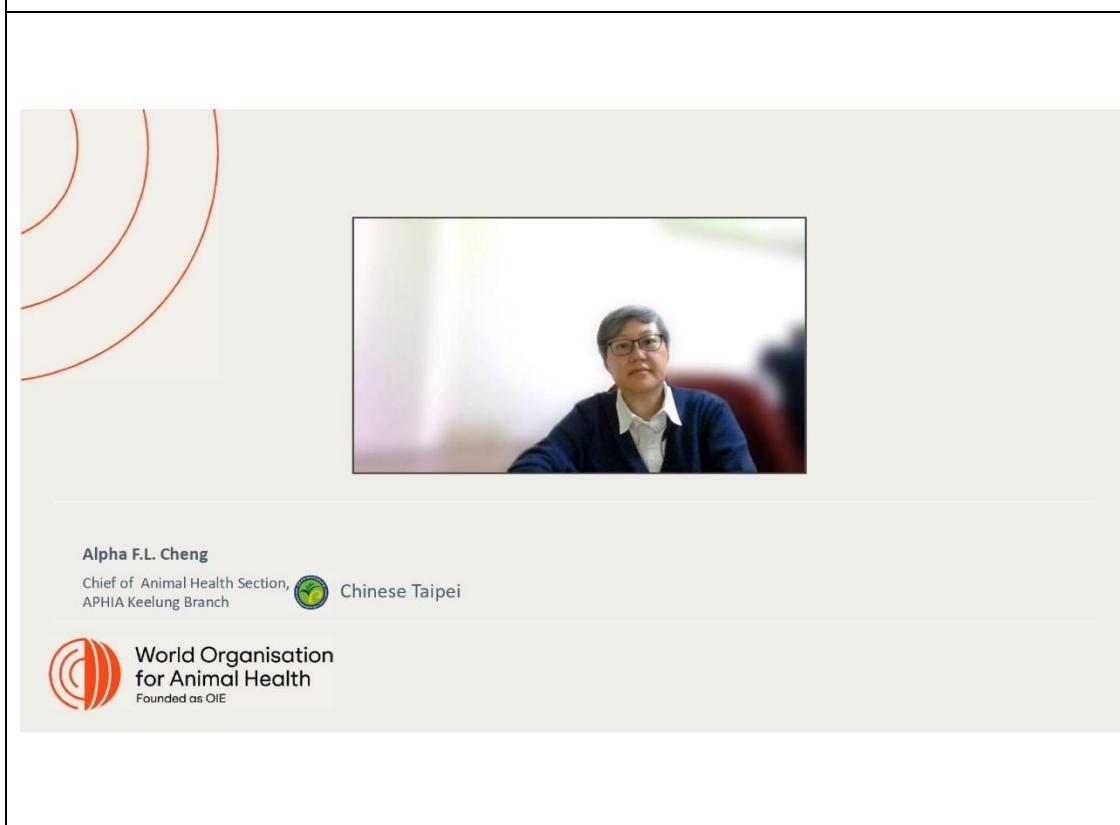
照片 5：
羽田機場邊境檢
疫實況。



照片 5：
11 月底返國前
與東京局同仁合
影。



照片 6：
東京局電子賀年
卡。



照片 7：
2024 年 1 月初
受東京局邀請為
WOAH 成立 100
週年錄製電子賀
詞。