Malaysia

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Subject: Sabah Wildlife Department Response to Notification to the Parties (2023/28)

Date: 17 April 2023 at 11:12

To: info@cites.org

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Dear Sir,

Attached herewith is our response to the said notification.

Thank you.

AUGUSTINE TUUGA Director Sabah Wildlife Department, Kota Kinabalu, Sabah, MALAYSIA



Sabah Wildlife Depart...23.doc

Sabah Wildlife Department Response to Notification to the Parties (2023/28) on 16 March 2023

Risk of future zoonotic disease emergence associated with international wildlife trade.

Sabah Wildlife Department report on the measures they have in place to prevent and mitigate the risk of pathogen spillover and transmission from wildlife trade and associated wildlife supply chains including markets.

Sabah Wildlife Department's (SWD) mission is to conserve the flora, fauna, and natural environment of Sabah. SWD has long realized that zoonoses poses a threat to human and animal health including wildlife. For all SWD work, including work with endangered wildlife populations, the management of our facilities (such as the Sepilok Orangutan Rehabilitation Centre (SORC)), or when planning translocations of conflict species, the risk of zoonoses is a key consideration. SWD recognises the link between the wildlife trade and the spread of zoonotic pathogens, and that our efforts to combat the illegal wildlife trade and poaching are important for both conservation and human health. SWD has been actively involved in zoonotic research since 2011 and managing the risk of zoonoses is a priority for SWD.

1) Multi-sectoral approaches adopted in the implementation of the Convention, including in terms of:

- i) the regulation of trade in specimens of wild animals species;
- ii) the preparation and shipment of specimens traded in terms of the Convention; and
- *iii) the regulation, registration and administration of captive-breeding, farming and ranching facilities;*

Sabah Wildlife Department (SWD) works closely with the Royal Malaysian Police and Royal Malaysian Customs Departments to regulate the legal trade in specimens of wild animals and follow the terms of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and combat the illegal wildlife trade. SWD is a key member of the Sabah Biodiversity Council that manages, conserves, and protects Sabah's biological resources. SWD is also responsible for issuing licenses and monitoring facilities that involve the legal use of wildlife such as restaurants, zoos, interaction facilities, pet suppliers, wildlife markets and farms. SWD is always exploring ways to make these facilities safer in terms of zoonoses. For example, in 2013 – 2014 SWD made changes to staff SOPs for handling orangutans at SORC, SWD also added signs and information for visitors encouraging them not to visit the centre if they were unwell and installed handwash stations and disinfectant foot baths to help reduce the potential for zoonotic pathogen spread. SWD is currently evaluating our SOPs for tourist visiting the Gomantong Cave, an important ecotourism site, but through our ongoing zoonotic research with long-term partners Conservation Medicine and EcoHealth Alliance, SWD recognise that this is also a site where the potential for zoonotic pathogen transmission is higher, and that steps are needed to reduce this risk. SWD are also in the process of evaluating how facilities involved in the legal handling of wildlife apply for licences from SWD and ways SWD can utilise this system to improve monitoring as well as sharing of information with the owners of these facilities related to biosafety and zoonoses.

2) Synergies with appropriate national and international animal and public health authorities that have been developed and strengthened;

Sabah Wildlife Department (SWD) is a key member of the Malaysia Wildlife Crime Interagency Working Group; comprising 14 law enforcement and conservation agencies from Sabah, Sarawak, and Peninsular Malaysia (Sabah Wildlife Department, Sabah Forestry Department, Sabah Parks, Department of Fisheries, PERHILITAN, Sarawak Forestry Corporation, Royal Malaysian Customs Department, Malaysia Maritime Enforcement Agency, Eastern Sabah Security Command, General Operations Force, Royal Malaysian Police, Marine Police, WWF Sabah, and Danau Girang Field Centre) that focuses on the sharing of intelligence and available resources to improve the quality of the prosecution processes, and ultimately on increasing prosecutions as a deterrent. SWD is also working closely with two of our long-term partners, Danau Girang Field Centre and Sabah Forestry Department, to boost enforcement and forensic capacity to deter wildlife trafficking in Sabah. In 2020 through this ongoing effort SWD established an Intelligence Unit to closely monitor illegal wildlife trade and trafficking in Sabah and a Forensic Unit, working under a certified DNA wildlife forensics scheme, to locally process wildlife crimes in Sabah.

Sabah Wildlife Department is a member of the Sabah Zoonotic Diseases Committee and meets regularly with Sabah State Health Department, Sabah Department of Veterinary Services and local universities and NGO groups involved in zoonotic research, to discuss cases of zoonoses and ongoing research. SWD has been a key member of ongoing zoonotic research in the state of Sabah with long-term partners Conservation Medicine and EcoHealth Alliance, starting with the USAID funded PREDICT program from 2009 – 2020 (work started in Sabah in 2012) and now supported by the Emerging Infectious Diseases – South East Asia Research Collaboration Hub (EID-SEARCH) an effort that began in June 2020 funded by NIH through NIAID. These research projects are driven by a One Health approach and include many of the other members of Sabah Zoonotic Diseases Committee. This coordination and research have helped strengthen the networks for wildlife and human health and diagnostics, increased the speed and spread of important findings, and improved our understanding of the risk of zoonoses and the link to the wildlife trade.

3) Strategies developed to identify and reduce the risk of transmission and spillover of zoonotic diseases and pathogen emergence from traded wildlife, including inter alia:

i) assessment of risks associated with sources of traded wildlife specimens and associated wildlife support chains especially from areas or involving species known or suspected to be exposed to or linked to potentially harmful pathogens;

Through the Deep Forest Project (part of the PREDICT project with Conservation Medicine and EcoHealth Alliance), sampling wildlife across land-use disturbance gradients in Kinabatangan and Telupid, allowed Sabah Wildlife Department (SWD) to better understand the impact of land-use change on species diversity, the viruses that they carry and the distribution of host species. The PREDICT project identified 62 novel pathogens and work is ongoing through EID-SEARCH to further characterise these viruses to determine which pose a serious threat to human and livestock populations. This work has helped identify which wildlife species pose a greater threat to local communities though increased contact and conflict, and to the wider community if these species become part of the legal or illegal wildlife trade. In addition, with our partners Conservation Medicine and EcoHealth Alliance, SWD conducted Human-Animal Contact Surveys with people living near the Deep Forest sites, to better understand how different communities interact with wildlife. This information has been shared with our partners in Malaysia and can be used to help design targeted healthcare interventions for different communities. Through the EID-SEARCH project we are

continuing this surveillance effort identifying a further 12 potentially novel viruses to date, and working to build capacity in Malaysia to allow us to more rapidly further characterize novel viruses identified through ongoing screening at high-risk interfaces including bushmeat, hunters and wildlife from areas that support the legal and illegal wildlife trade, so that Sabah state can more rapidly evaluate new viruses to determine which pose a threat to human and livestock populations.

As part of the PREDICT project and with close support from Sabah Wildlife Department, Conservation Medicine Field Coordinator Jimmy Lee's Masters focused on zoonotic virus surveillance and genetic diversity mapping of confiscated and rescued Sunda pangolins (*Manis javanica*). His research findings provide strong evidence that pangolins are not a reservoir species or the intermediary host for SARS-CoV-2 the virus that causes COVID-19 and that the detections of SARS-CoV-2-related viruses in pangolins are most likely a result of their exposure to infected people, wildlife, or other animals after they entered the illegal wildlife trade. These findings suggest that wild pangolins pose no threat to human health and highlight the importance of carefully ending the trade of wildlife and improving biosecurity at wet markets to avoid having wild animals co-mingling with farmed animals and humans. His research will play a significant role in promoting pangolin conservation action and further highlights the negative impacts the wildlife trade is having on human and wildlife health. His findings will also serve as a reference for future research on the population genetics of Sunda pangolins.

ii) testing wildlife specimen in trade, including in markets, and associated wildlife supply chains for pathogens, taking into account known or suspected pathogen infection risks;

Historically one of the challenges faced by Sabah Wildlife Department has been the lack of laboratory capacity in the state of Sabah so evidence had to be sent to Department of Wildlife and National Parks Peninsular Malaysia (PERHILITAN) located in Peninsular Malaysia for molecular analysis to identify the species. This process takes time, money, and creates a biosafety risk. Recognizing this, Sabah Wildlife Department working closely with our partners Conservation Medicine, Danau Girang Field Centre and EcoHealth Alliance have built laboratory capacity in Sabah by establishing the Wildlife Health, Genetic and Forensic Laboratory that has been certified since 2013 to international biosafety standards and is used to screen samples for zoonotic disease, genetic and forensic research. The Wildlife Health, Genetic and Forensic Laboratory allows Sabah Wildlife Department to conduct the lab testing without the delay, cost, and biosecurity risks of shipping samples to Peninsular Malaysia. Setting up the Wildlife Health, Genetic and Forensic Laboratory has benefited both public health and wildlife conservation, for example all the novel viruses identified through the PREDICT and EID-SEARCH project were found through screening conducted by our partner Conservation Medicine at the Wildlife Health, Genetic and Forensic Laboratory.

The poaching and smuggling of wildlife in Sabah mean Sabah Wildlife Department is constantly conducting enforcement operations and collecting evidence including meat, bone, and ivory from animals that needs to be identified for cases to proceed to prosecution. The illegal wildlife trade is a multi-billion-dollar industry and a big problem in Sabah. For example, Sabah is one of the global hotspots for the smuggling of the critically endangered Sunda pangolins. The Wildlife Health, Genetic and Forensic Laboratory allows Sabah Wildlife Department to conduct species identification quickly which will lead to more convictions, which will help deter the illegal wildlife trade. Sabah Wildlife Department is working closely with Conservation Medicine and Danau Girang Field Centre to obtain ISO 17025 accreditation enabling the laboratory to demonstrate that it can operate competently and generate valid results. Achieving this certification will make it easier for Sabah Wildlife Department to use the laboratory to process forensic samples for prosecutions to help in its efforts to battle the

illegal wildlife trade and poaching which is important for both conservation and human health. Sabah Wildlife Department expect to achieve the ISO 17025 accreditation in late 2023.

iii) containing or mitigating pathogen spillover from specimen known or suspected to be infected, including in markets, or associated wildlife support chains;

In March 2022, it was reported that some 4,452 pigs in Sabah had been affected by African Swine Fever (ASF). While ASF is not a zoonotic pathogen, it is a good example of the close collaboration between Sabah Wildlife Department (SWD) and Sabah Department of Veterinary Services (SDVS) who worked together to confirm early cases and contain the outbreak. The outbreak affected backyard pigs, wild pigs, and commercial pigs. The outbreak first started in January 2021, when a total of 29 wild boar carcasses were found in Kinabatangan, while another five were found in Sugud and Paitan. SWD took immediate action to control the spread of the disease. They banned the issuance of hunting licenses and prohibited the sale of wild boar meat in local restaurants. SWD worked closely with SDVS and partners Conservation Medicine and Danau Girang Field Centre, to develop Standard Operating Procedures (SOPs) for park managers, rangers, oil palm plantation staff, and local villagers. These SOPs were designed to help deal with the wild boar carcasses and prevent the further spread of the disease. The implementation of SOPs and the ban on hunting licenses helped prevent the further spread of the disease. SWD and SDVS in collaboration with other agencies and partners took swift action to control the outbreak of African Swine Fever in Sabah protecting both commercial pig farms and the remaining wild boar population. This is a good example of the institutional capacity and inter-agency collaboration that exists in Sabah and will be used to manage future disease outbreaks.

iv) organization, monitoring, administration of the abovementioned matters; and

As part of Sabah State's commitment to national and global public health, Sabah Wildlife Department with its mandate to manage wildlife imports, exports and utilization had identified the need for a comprehensive assessment of the potential pathogen risks associated with sources of traded wildlife across its entire value chain. The urgency of this work was highlighted by the SARS-CoV-2 pandemic, and its links to the wildlife trade. Malaysia supports wildlife utilization where it is legal, sustainable and where pathogen spillover risks to humans, wildlife or livestock are minimised. To this end, Sabah Wildlife Department, with one of our long-term partners Conservation Medicine, is currently engaged and leading research in this field by participating in the European Union-funded SAFE project, implemented by UNODC's Global Programme on Crimes that Affect the Environment together with FAO and UNEP. The SAFE project is working directly in partnership with the wildlife and public health agencies of Sabah and undertaking field-based assessments of the commercial wildlife sector across Sabah State, with the aim of identifying spill over and pathogen transmission risks and, through expert consultations with national and international scientists and industry practitioners, to develop strategies for Sabah and the wider region to implement, where feasible, to eliminate or minimise those pathogen risks.

v) building institutional capacity, including capacity for inter-agency collaboration (for example between agencies tasked with wildlife management, veterinary and public health, trade regulation, and CITES Authorities), as required to implement the abovementioned matters.

Addressed in earlier sections.