

Wildlife trafficking and corruption at the maritime port: a global health threat

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The insatiable demand of bushmeat for human consumption and traditional Chinese medicine for therapeutic use has led to an increase in wildlife trafficking across the world. Wildlife trafficking – which involves illegal trading, smuggling, poaching, and capturing of endangered species of animals including the products (skin and organ) derived from them, is one of the most lucrative illegal businesses across the world with cost estimates that ranges from US\$10 billion to US\$20 billion per annum [1]. Illegal trading of wildlife creates an opportunity for infectious diseases outbreaks, including zoonoses (diseases transmitted between humans and animals) that account for an estimated 60% of emerging diseases circulating between the human and the animal population, to occur, and thus, a global health threat [2]. The maritime seaport plays an essential role in wildlife trafficking through its ease on the transportation of wild animals and their products between countries which is mostly associated with corruption at the port, and in part, with the decrease in the rate of arrest and prosecution of traffickers. However, despite the effort of anti-corruption compliance initiatives like Maritime Anti-Corruption Network, corruption persists.

Globally, the rate of wildlife trafficking is on the rise and recent studies show that from 2012–2016, over 11 million live wild animals and more than 8 million live animals were exported and imported, respectively [3]. Wildlife trafficking falls into different categories such as birds, reptiles, amphibians, and fishes. It also includes large mammals such as elephants, rhinoceros, donkeys, and pangolins which are facing serious extinction threats and this is evident from their increased death rate from poaching. According to the Proportion of Illegally Killed Elephants data, about 157,000 elephants were poached between 2010 and 2018 while ~900,000 pangolins were poached between 2000 and 2019 [4, 5]. Since about 90% of trade across

the world is carried out by the shipping industry through its over 50,000 registered merchant ships across an estimate of 150 nations, this facilitates the ease of transport of wildlife through the sea that could result in human-animal contact and spillover of viruses to humans during trading at the live market thereby resulting in transmission of diseases between countries [6]. Civet cats are known to harbor coronaviruses, and their trading in live animal markets has resulted in the outbreaks of severe acute respiratory syndrome coronavirus (SARS-CoV) in Guangdong Province [7]. The outbreak of monkeypox outside Africa has been linked with pet prairie dogs infected with the virus from the African rodents imported to the United States [8]. The outbreaks of the coronavirus disease 2019 (COVID-19) caused by SARS-CoV-2 has also been associated with trading of live wild animals at Wuhan wet market in China, which play an important role in the spread the disease to humans. Though, the zoonotic source of its transmission has not been well established.

Over the years, several cases of corruption issues including commercial extortion by shipping companies in form of bribery, weak ethics infrastructure in port agencies, and smuggling of wildlife have been reported [9]. However, despite the seizures of illegal wildlife at the port of entry of countries like Thailand, Singapore, Indonesia, and Nigeria, wildlife trafficking still continues [9, 10]. As a result of this, there is a need for the development of strategies aimed at banning or reducing demand for wildlife as seen in the new bill “Preventing Future Pandemics Act of 2020” of the United States. Consequently, there is a need for capacity building (knowledge, skills, and use of surveillance technologies) amongst the maritime law enforcement agencies and wildlife trade monitoring networks, with support from the government. This would facilitate strict compliance of seaports across each countries with Convention on International Trade in Endangered Species of Wild Fauna and

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Flora list of imported and exported species. There is also a need for increased advocacy on the public health threat surrounding wildlife trafficking amongst traffickers, seafarers, and consumers.

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