

**Subject:** (TH) Reports on measures in place to prevent and mitigate the risk of pathogen spillover and transmission  
**Date:** Thursday, 20 April 2023 at 08:32:47 Central European Summer Time  
**From:** CITES DNP  
**To:** UNOG-UNEP-CITES Info  
**CC:** Thea Henriette Carroll  
**Attachments:** Thailand Report (ENG).docx, Thailand Report (ENG).pdf

Dear Colleague,

Referring to Notification to the Parties No. 2023/028 dated 16 March 2023 regarding the risk of future zoonotic disease emergence associated with international wildlife trade, requesting Parties to report on any 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. We would like to submit the above-mentioned report from Thailand as per requested.

We apologize for the delayed response due to unavoidable circumstances and for any inconvenience this may have caused.  
Please be assured of our support and cooperation regarding this matter.

Best regards,

Kittipot Boochoa,  
Coordinator

CITES Management Authority of Thailand  
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## 1. Definitions adopted relating to zoonoses

Zoonosis (โรคติดต่อจากสัตว์สู่คน) is an infectious disease that is transmitted between species, from animals to humans or from humans to animals.

(source: <https://www.siphhospital.com/th/news/article/share/zoonoses>)

The term currently has not been defined by the Animal Epidemic Act B.E. 2558 (2015). However, there are certain definitions adopted that define characteristics and symptoms of severe animal epidemics that can potentially cause damage to livestock businesses and affect the economy of the country, according to the definition of epidemics in Section 4 of the Animal Epidemic Act B.E. 2558 (2015), for instance, the definition of symptoms or deaths caused by Avian influenza, African swine fever, Lumpy skin, African horse sickness, etc.

## 2. Approaches adopted in the implementation of the Convention

### - The preparation and shipment of specimens traded in terms of the Convention

#### Animal Epidemic Act B.E. 2558 (2015)

**Section 31.** For the purpose of prevention and control of epidemics, any person who imports, exports or transits an animal or carcass through the Kingdom shall obtain a licence from the Director-General or a person entrusted by the Director-General for each import, export or transit through the Kingdom.

The application for, and the issuance of a licence and the procedures on import, export or transit through the Kingdom shall be in accordance with the criteria, procedures and conditions prescribed in the Notifications by the Director-General.

**Section 34.** For the purpose of prevention and control of epidemics, any person who intends to take wild animals or carcasses to an area of other provinces shall arrange an animal identification marking and shall obtain a licence from a local veterinary authority at the place of departure.

**Section 22.** Upon the announcement of a temporary epidemic zone under section 20 or the announcement of an epidemic zone or epidemic surveillance zone under section 21, no person may move the animals or carcasses specified in such announcement into, out of, through or within such zone unless a written permit from the veterinarian who is responsible for such area is obtained for each move.

**Section 18.** Upon the announcement of an epidemic control zone, epidemic-free zone or epidemic buffer zone under section 17, no person may move the animals or carcasses specified in such announcement into or through such zone, unless a written permit from the Director-General or a veterinarian entrusted by the Director-General is obtained for each move.

**Wild Animal Reservation and Protection Act, B.E. 2562 (2019)**

*(also known as Wildlife Conservation and Protection Act, B.E. 2562 (2019))*

**Section 22.** A person shall not import or export reserved wild animals, carcasses of reserved wild animals or products from carcasses of reserved wild animals unless a licence is granted by the Director-General of the Department of National Parks, Wildlife and Plant Conservation. (DNP)

**Section 23.** A person who intends to import or export protected wild animals, breedable protected wild animals, controlled wild animals, carcasses of such wild animals or products from carcasses of such wild animals shall acquire a licence granted by the Director-General of DNP.

Permission under paragraph one, in the case of protected wild animals or carcasses of protected wild animals, may be granted only in the case where it is the act for the operation of a zoo of a holder of a licence for the establishment and operation of a zoo under section 33 or a zoo established by a State agency in accordance with its duties.

**Section 24.** In the case where the exportation of wild animals, carcasses of wild animals or products from carcasses of wild animals other than reserved wild animals, protected wild animals or controlled wild animals needs an export certificate as required by a country of destination or where any importer or exporter intends to obtain a certificate of importation or exportation of such wild animals, carcasses of such wild animals or products from carcasses of such wild animals, an application for a certificate of importation or exportation may be submitted to the competent official.

**Section 25.** Any person who intends to carry through reserved wild animals, protected wild animals, breedable protected wild animals, controlled wild animals, carcasses of such wild animals or products from carcasses of such wild animals shall notify it to the competent official stationed at a wild animal checkpoint.

**Section 26.** The Minister shall have the power to establish wild animal checkpoints and prescribe areas of such checkpoints by publication in the Government Gazette.

**Section 27.** A holder of a licence for the importation or exportation of reserved wild animals, protected wild animals, breedable protected wild animals, controlled wild animals, carcasses of such wild animals or products from carcasses of such wild animals shall, upon importation or exportation of such reserved wild animals, protected wild animals, breedable protected wild animals, controlled wild animals, carcasses of such wild animals or products from carcasses of such wild animals, notify it to the competent official stationed at a wild animal checkpoint. In this regard, a certificate of importation or exportation shall be produced. Further movement of such goods may be made when they have been inspected by the competent official.

**- The regulation, registration and administration of captive-breeding, farming and ranching facilities**

The Department of Livestock Development has a farmer registration system, and certifications for farms with Good Agricultural Practice (GAP) and Good Farming Management (GFM), to enhance livestock farms' standard in disease prevention and control to ensure the health and safety of farmers and the public.

**Wild Animal Reservation and Protection Act, B.E. 2562 (2019)**

*(also known as Wildlife Conservation and Protection Act, B.E. 2562 (2019))*

**Section 33.** Any person who intends to establish and operate a zoo shall acquire a licence granted by the Director-General and, for this purpose, submit documents describing a zoo establishment and operation project, a list of kinds and numbers or quantities of wild animals or

carcasses of wild animals which such person has or will have in possession, together with the production of evidence of their acquisition, and also a map indicating the location, plan and chart of the zoo.

The standard for zoo management shall at least contain key substances as follows:

- (1) the management of areas for nurturing and exhibiting animals;
- (2) nutrition care;
- (3) sanitation, wastewater treatment, waste elimination and disease control;
- (4) the upkeep of animals;
- (5) animal welfare management;
- (6) security and the maintenance of security;
- (7) emergency operations and measures;
- (8) directions for providing knowledge or education on animals.

**Section 34.** During the construction of a zoo, if the Department of National Parks, Wildlife and Plant Conservation, the Department of Fisheries or the local government organisation in the locality in which such zoo is located finds that the construction fails to be in compliance with the zoo establishment and operation project as well as the plan and chart submitted under section 33, the Department of National Parks, Wildlife and Plant Conservation, the Department of Fisheries or the local government organisation, as the case may be, shall order the applicant for a licence to make rectification or improvement to ensure correctness within a period of time specified. Upon completion of action by the applicant for a licence, the applicant shall notify it to the competent official for proceeding with the examination of correctness.

**Section 35.** During the operation of a zoo, the Department of National Parks, Wildlife and Plant Conservation or the Department of Fisheries, as the case may be, shall exercise control to ensure that the holder of a licence carries out operations in compliance with the standard for zoo management under section 33.

In the case where it is found from the examination that the holder of a licence fails to carry out operations in compliance with the standard for zoo management under section 33 or areas within the zoo are in the condition posing public danger or nuisance or causing danger or suffering to wild animals, the Director-General shall have the power to issue an order in writing demanding such holder of the licence to rectify or improve such condition.

**Section 36.** In the case where, for the operation of any zoo, licences for the establishment and operation of a zoo have been granted both by the Director-General of the Department of National Parks, Wildlife and Plant Conservation and by the Director-General of the Department of Fisheries and the holder of the licences receives an order for suspension or revocation of any of the licences, it shall have the effect of temporarily discontinuing the operation of the zoo in entirety until rectification or improvement is carried out in accordance with the requirement prescribed by the Director-General or it shall have the effect of revoking the other licence, as the case may be.

**Section 37.** Any holder of a licence for the establishment and operation of any zoo who intends to cease the operation shall, prior to the date of the intended cessation, notify it in writing to the Director-General in accordance with the Rule prescribed by the Director-General with the approval of the Commission and the provisions of section 79 shall apply mutatis mutandis to action to be taken against wild animals or carcasses of wild animals which are in possession of the person ceasing the operation of the zoo under the licence for the establishment and operation of such zoo, provided that the action shall be completed within one year as from the date of the cessation of the operation of the zoo.

**Section 38.** For the purpose of supervision of a zoo established by a State agency within its duties, such State agency shall, prior to the inauguration of the zoo established by it within its duties, notify the establishment thereof to the Director-General for the purpose of examination. If the competent official finds that the establishment of such zoo fails to be in compliance with the standard for zoo management under section 33, the competent official shall notify it to the State agency for making rectification or improvement within the time specified and shall, when considering that the rectification or improvement of the zoo has been made in compliance with

the standard for zoo management, notify it in writing to the State agency for its operation of the zoo.

A zoo established by a government agency within its duties shall comply with the provisions of this Act and furnish information on wild animals or carcasses of wild animals which are in its possession to the Department of National Parks, Wildlife and Plant Conservation or the Department of Fisheries, as the case may be, for information at least once a year.

### **3 . Synergies with appropriate national and international animal and public health authorities**

Various authorities in Thailand, including the Department of Livestock Development and the Office of Wildlife Conservation, jointly participated in Coordinating Unit for One Health working group in order to tackle issues including emerging, re-emerging, and endemic zoonotic diseases and other health threats shared by people, animals, and the environment in compliance with the One Health approach.

In addition, cooperation with local, regional, national, and international organizations played a vital role in dealing with zoonosis-related issues. This includes educational institutions, non-profit organizations, and international agencies such as the Wildlife Conservation Society (WCS), World Wildlife Fund (WWF), World Organization for Animal Health (WOAH), etc.

### **4. Strategies developed to identify and reduce the risk of transmission and spillover of zoonotic diseases and pathogen emergence from traded wildlife**

- 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

There are various factors that may potentially cause spillover and pathogen transmission in Wildlife Breeding Centers and Wildlife Quarantine Centers, which are being carefully carried on. Such factors include:

1. The diversity of animal sources taken into the centers' custody
2. Location of the Wildlife Breeding Centers and Wildlife Quarantine Centers
3. The center's obligation to support the public in breeding the breedable protected wildlife species
4. The public's visitation to the centers which allowed occasionally

In the case of the importation of wild animals' carcasses, the Department of Livestock Development will check thoroughly to make sure that the country of origin poses no risk of spillover or pathogen transmission before issuing an Import Permit and setting import requirements. The requirement is being updated regularly to make sure that it is always up to date, to prevent any risk of zoonosis spillover in Thailand.

In addition, the Department of National Parks, Wildlife and Plant Conservation is currently participating in the SAFE project, joint research on pathogen risks associated with sources of traded wildlife, funded by the European Union and implemented by UNODC's Global Programme on Crimes that Affect Environment together with FAO and UNEP. With the aim of identifying spillover and pathogen transmission risks, the SAFE project is currently working in partnership with the wildlife, livestock and pet management agencies of Thailand through expert consultations with national and international scientists and industry practitioners to develop strategies to implement where feasible, to eliminate or minimize the pathogen risks.

**-Testing wildlife specimen in trade, including in markets, and associated wildlife supply chains for pathogens**

1. The Wildlife Forensic Science Unit, Office of Wildlife Conservation, is responsible for species identification and morphological examination of wild animals and carcasses case by case.

Samples collected from this process can be used to trace the source of the disease in case the sample shows any risk of zoonosis diseases.

2. Each Wildlife Breeding Center and Wildlife Quarantine Center has its own specific division responsible for screening every animal for zoonosis disease before taking them in. This process is then repeated again before handing out the breedable species to the public. Annually and monthly check-ups are conducted regularly to prevent any risk of zoonosis disease spillover, especially in avian species.

### **- Containing or mitigating pathogen spillover**

When the notification has been made or there are reasonable grounds to suspect that an animal becomes sick or dies of an epidemic in accordance with Section 12 of the Animal Epidemic Act B.E. 2558 (2015), a competent official or an inspector shall have the power to issue a written order requiring an owner of the animal to do the following:

1. to confine, isolate or move the animal being sick or suspected of being sick to be within the area in accordance with the prescribed methods;

2. to bury or burn the carcass at a specified place or, if the burial or burning is impracticable, to destroy it by other methods as deemed appropriate;

3. to confine, isolate or move the animals being or used to be in the same group with the animal being sick or suspected of being sick or with the dead animal to be within the area in accordance with the prescribed methods.

Various measures are in place in Wildlife Breeding Centers and Wildlife Quarantine Centers to contain or mitigate pathogen spillover, including:

1. There are certain areas in each center that act as a quarantine zone to accommodate newly taken-in wild animals, to separate them from the others and prevent any risk of pathogen spillover.

2. For areas that allow visitors from the public, strict measures and sturdy barriers are in place to keep a safe distance between visitors and wild animals while also being monitored closely by authorized officers.

3. Biosecurity measures are in place in various procedures including, but not limited to, using anti-virus disinfectant upon entry or exit of each zone, limiting the number of officers responsible for each area to the fewest possible to minimize the risk of pathogen transmission, etc.

4. All newly taken-in wild animals must go through a health check-up and major zoonosis disease examination. The carcass must also be forensically examined to prevent any risk of pathogen spillover in the facility. These procedures must be conducted strictly in accordance with the biological sample transportation standards when transporting to the laboratory to prevent any possible contamination.

5. The officers conducting major zoonosis disease examinations must be vaccinated accordingly. e.g. Rabies vaccination among staff exposed to mammals, Tuberculosis vaccination among staff exposed to primate species, etc.

**- Building institutional capacity for relevant authorities, as required to implement the abovementioned matters**

The Department of Livestock Development regularly reviews disease monitoring and prevention plan and the guidelines for integrating the implementation of various joint missions with the relevant agencies, in order to achieve mutual understanding and to enhance the efficiency and effectiveness when implementing the abovementioned matters.

The Office of Wildlife Conservation also regularly holds various capacity-building training and workshop for their staff, including:

1. Training on wildlife quarantine zone preparation to accommodate newly taken-in wild animals in order to separate them from the others.

2. Workshops educating and training staff on minimizing and mitigating the risk of pathogen spillover.
3. Measures and guidelines are in place in case of emerging infectious disease spillover or zoonosis disease transmission. (regularly updated in accordance with the current situation)