



**STRUCTURE**

- Department of Environment and Natural Resources (DENR)
  - Jurisdiction covers all terrestrial plant and animal species, all birds and tortoises and wetland species, including but not limited to crocodiles, waterbirds and all amphibians and dugong.
- Wildlife Resources Division
  - Biodiversity Management Bureau (BMB)
    - Manages wildlife health
    - Formulates policies, guidelines, and regulations for the establishment and management of protected areas, such as national parks and wildlife sanctuaries and oversees conservation
- Department of Agriculture (DA)
  - is covered all declared aquatic critical habitats, all aquatic resources, including but not limited to all fishes, aquatic plants, invertebrates and all marine mammals, except dugong.

**POLICY**

- No specific policies on wildlife health
- Planning to create a policy focusing on wildlife health
- To incorporate wildlife disease surveillance in annual work and financial plan
- Wildlife health is currently indirectly related to the main mandate of BMB which is to maintain natural habitats of wildlife
- There is more focus on captive wildlife. But there is a shift to wildlife health in their natural habitat after the AI outbreak
- Too many overlapping policies and documents
- Implementation is difficult due to lack of funding

**LAW**

- Wildlife health is mentioned minimally and indirectly in welfare and well-being of rescued animals and disease surveillance for outbreaks
- Wildlife Resource Conservation and Protection Act (Republic Act No. 9147, 2001) on wildlife management and conservation
  - Administrative Order No. 10, 2011 on the creation of the Philippine Inter-Agency Committee on Zoonoses
  - Philippines with 2 rat rat-free annually for operations (The Animal Welfare Act of 1998 (Republic Act No. 8486 & 10613) on management, transportation, certification and prevention of animal habitat as means of protecting wildlife
  - Joint Administrative Order 2020-02 on rules and responsibilities of each department

**SOP/GUIDELINES**

- Health assessment and SOPs for captive wildlife in rehab of marine turtles, alignment in land mammals: more to detect, depending on disease
- Need reference that are easily understood by non-staff
- Wildlife Rescue Center Manual of Operations which covers husbandry, medical management, and facilities set-up
- Protocol for wildlife disease surveillance in free-ranging wildlife was designed in 2020 and is currently undergoing review



**COLLABORATION & OH**

- At national level, DENR has fostered strong collaborative relationships with BAI
- At local level, collaborators know of DENR but the topic of wildlife health needs further dissemination, more advocacy for wildlife health
- Uncertainty about appropriate agency to contact - need more information dissemination

**Philippine Inter-Agency Committee on Zoonoses (PHICZ)**

- Expressed interest to transform PHICZ into a OH platform
- Established since 2015 as the country's mechanism to operationalize OH
- PHICZ objectives
  - Develop a national strategy on prevention, control and elimination of zoonoses; and
  - Establish a functional and sustainable mechanism to strengthen the animal-human interface for the effective prevention, control and elimination of zoonotic disease
- Activities
  - Passive surveillance by DENR: sampling in bird sanctuaries in coordination with DA Regional Animal Disease Diagnostic Lab
  - Active and passive surveillance by DA-BAI and DOH

**Other activities**

- Disease surveillance activities
  - BMB conducted an orientation on OH, zoonoses, and wildlife disease surveillance (with resource persons from WHO, WHO, and DA-BAI) with participants from DENR Regional and Field Offices
  - Program for Zoonotic Disease
    - Created and launched by UPLB to be the leading zoonotic disease research and knowledge resource center in Asia contributing to OH
    - Mission to enhance capacities on zoonotic disease detection, prevention, and response to outbreaks in protecting animal and human population



**FINANCIAL**

- 2 ml FWP for PHICZ annually
- Additional funding for wildlife health in 2024
  - for wildlife surveillance activities
  - high increase from 2023
- Lack of funding
  - No emergency funds - funds may be required during emergencies
  - Indirect funding from NGO

**PHYSICAL**

- Focus on OH in wildlife is fairly recent
- New supplies will be purchased in 2024
- Lack of logistics and resources particularly at regional offices
- Use of PPEs may scare local communities
- Facilities are available and depends on turnover of animals

**HUMAN**

- Lack of manpower
  - offer a 1-person team especially in field offices
  - Lack of vets
    - Four compensation and low wage
  - Lack of experience in species identification
- Need capacity building for local staff and vets
- Need to increase number of entry-level positions and vets
- Need to improve salary schemes/incentives

**ANIMAL HEALTH**

- Wildlife rescue centers (WRCC)
  - 30 DENR-established and 34 DENR-designated WRCCs
    - National Wildlife Rescue and Rehabilitation Center (NWRRC) in Nancy Aquino Parks and Wildlife Center (NAPWC)
  - Function as repositories of confiscated, donated, retrieved, or turned-over wildlife; or where sick, injured, confiscated wildlife are temporarily kept and rehabilitated prior to release to natural habitat or other modes of disposition
  - Inefficient vets in some rescue centers
  - Resolved by coordinating with LGU vets and trained paraprofessionals, but some are untrained
  - Depends on submission of animals by the public or treated in their natural habitat
  - Wildlife Enforcement Officers (WDEOs) designated by DENR to prevent and control illegal wildlife trade
  - coordinate with PACCs on health assessments on confiscated animals

**ANIMAL WELFARE**

- Trade and transport of wildlife
- There is a general public support on protecting wildlife

**SURVEILLANCE**

- Passive surveillance
  - Identify passive surveillance
  - Part of PHICZ role and responsibility
- Active surveillance
  - During outbreaks
    - Sampled from sites where previous cases in domestic animals were reported
    - Important aggregation sites
    - If site was found positive for a particular disease
  - Nipah test - looking to coordinate with other labs (include BAI)
  - Collaborate with DA-BAI and LGUs - sampling at migratory bird sanctuaries

**LABORATORY**

- No labs to accommodate samples in the region/divisional areas
- No wildlife lab - depends on BAI labs with limited pathogens to test. No viral lab. Challenge in detecting novel diseases
- Cold chain SOP available
- Laboratory network system under DA for infectious disease (eg. ASF in pigs, AI in poultry, FMD in livestock, other plant diseases)
- Bureaus of Animal Industry (BAI)
  - Animal Disease Diagnostic and Reference Lab
- Highly dependent on BAI laboratories receive wildlife samples
- BMB - Small laboratory which caters primarily to rescue center animals
- DOH - Research Institute for Tropical Medicine
- Ecosystems Research and Development Bureau
- Environmental Management Bureau
- Need to enhance capacity of local laboratories to cater to wildlife species

**DATA**

- Wildlife disease surveillance database kept in excel format
- All present, no plans to develop an online system. Current approach is to maintain records of events as they occur

**REPORTING**

- Conducts WAHIS reporting
- Reporting for abnormal animal mortality
- No established early warning system - domestic species become national for some diseases
- Long paper trail from field office to multiple offices before BMB (takes 2 months to know about disease events)
- Needs to improve reporting mechanism including reporting time
- Ways to report wildlife rescue, turn-over hotline on BMB website

**RISK ANALYSIS & ZOONOSES**

- Minimal analysis conducted to wildlife in natural habitat
- Academic research on Herpes viruses
- Rangers on regular patrol or hunters/poachers might have transmitted ASF to wild pig
- Need more risk assessment and risk management at human-domestic wildlife interface, and risk communication
- Rabies and AI are important zoonoses of interest

**RESPONSE**

- Late response time due to late reporting
- Less Pines-Parang Wildlife Critical Habitat (managed by DENR-NCR)
- AI Preparedness Plan (in consultation with BMB, BAI, SPC Wildlife, etc)
- When BAI detects/suspects a disease (i.e. ASF), they notify BMB, informing the absence of an agency for close monitoring of wildlife (captive and wild). This information is then disseminated to DENR Regional and Field Offices.

**ENVIRONMENT**

- Water samples from bird ponds for AI vet
- Note down weather conditions during disease surveillance
- Researches for ecosystem health not usually done, but conducted if necessary
- Status of Fisheries and Aquatic Resources (BFAR) samples for fishes and mollusks
- Heavy metals testing in marine turtles (part of necropsy procedure)
- Laboratories are limited

**ASSESSMENT**

- None
- Reviewing PVS as a good tool for assessment for wildlife health

**TRAINING**

- Coverage for wildlife health in vet curriculum is limited
- Student internships in wildlife facilities
- PHILOMAN incorporating OH into syllabus
- Trainings for local vets on specific aspects of wildlife and medical management to improve capacity to assist field offices in disease surveillance
- Need more training for general vets on certain species of wildlife

**TRACEABILITY**

- Not discussed

**COMMUNICATION**

- Most often focuses on conservation, with few on zoonoses
- Wildlife Tourist Advisories
  - produce advisories when necessary (eg. bird watching, cave spelunking)
- Currently conducting materials produced by BMB and BAI for local communities (interactive OH)
- Information dissemination through local radio stations using local dialects