Appendix III Glossary

Abiotic disease: Non-infectious disease caused by non-living environmental agents, such as toxic

chemicals, heavy metals, extreme temperatures, UV radiation, nutrient imbalance.

Acaricides: A chemical used to kill mites or ticks.

Accidental host: A host that harbours an organism that is not ordinarily pathogenic in that particular

species. Accidental hosts are usually a 'dead end' for a pathogen.

Acute: Meaning either a rapid onset of infection or short in nature.

Agar gel Laboratory technique that uses the diffusion of antibodies and antigens

immunodiffusion: across an agar gel to diagnose infections.

Aerosol: Suspension of solid or liquid particles in a gas or droplets of liquid (e.g. disease

agents in spray).

Aetiology: The study of the causes of diseases.

Anorexia: Poor appetite and/or inability to eat leading to loss of body weight.

Anthelminthic: A substance capable of destroying or expelling parasitic worms.

Anthropogenic: Caused or influenced by human activities.

Antibiotic: Chemical substance produced with the ability to kill or inhibit growth of other

microorganisms. Used in the treatment of some infectious diseases.

Antibodies: Serum protein produced by lymphocytes in response to the presence of specific

antigens. Detection of specific antibodies is useful for diagnosis.

Anticoagulated: The prevention of coagulation (clotting), usually referring to blood taken into tubes

containing an additive e.g. heparin.

Antigen: Any substance that is recognised by the body as foreign *e.g.* invading organisms,

toxins, non-self tissues. The recognition gives rise to an immune response and

antibody production.

Aquaculture: The cultivation of aquatic plants and animals for food.

Arthropod: A member of the phylum Arthropoda. An invertebrate animal with an external

skeleton, a segmented body and jointed appendages (e.g. insects, arachnids,

crustaceans).

Ascitic: An abnormal accumulation of serous fluid (or serum) in the abdominal cavity.

Asymptomatic: Carrying an infection or diseased but showing no symptoms.

Ataxia: Neurological disorders which cause the loss of ability to coordinate muscular

movement.

Attenuated vaccine: A vaccine containing a weakened form of the organism that causes the disease.

Also called a live vaccine.

Avian influenza (AI): A disease of birds caused by influenza A virus, can refer to either low pathogenic or

highly pathogenic forms of the disease (LPAI or HPAI).

Bacteriophage: A virus that parasitises a bacteria.

Biliary duct: A duct that transports bile from the liver to the intestines.

Bioassay: Bioassay (biological assay) is a procedure that determines the concentration of a

particular biological constituent of a mixture.

Biochemical: Chemical composition of a particular living system or biological substance.

Biosafety: The precautions taken to prevent exposure to infectious agents.

Biosecurity: The precautions taken to minimise the risk of introducing infection (or invasive

alien species) to a previously uninfected site and therefore preventing further

spread.

Biotic diseases: Those caused by a living agent, such as a bacterium, virus, fungus or protist.

Bovid: Member of the Bovidae family (including cattle, buffalo and bison).

Buffer zone: An area of land separating two or more different land types (e.g. between a

disease-infected area and a disease-free area). This zone may consist of physical barriers, an absence of hosts, an absence of disease vectors or only immune hosts

e.g. following ring vaccination.

Bushmeat: Hunting and/or consumption of meat from wild animals.

Caecal: Of, or pertaining to, the cæcum, or blind gut.

Carrier (disease): A person or organism infected with an infectious disease agent but displaying no

symptoms (asymptomatic).

Caudates: Latin for 'tail', refers to amphibians with tails (e.g. salamanders and newts).

Causative: Refers to the agent or cause of a disease.

Cercaria: Parasitic larval stage of a trematode worm.

Cervid: Member of the Cervidae family *i.e.* deer.

Challenge: The physiological, and especially immunological, stress a host is subjected to by a

pathogen.

Chemical fixation: Using chemicals to preserve tissues and prevent decay.

Chemotaxis: The characteristic movement or orientation of an organism or cell along a chemical

concentration gradient either toward or away from a chemical stimulus.

Chronic: Describing a long-standing disease or lesion which may follow an acute phase, or a

disease marked by frequent reoccurrence.

Clinical signs: Observed changes in the course of a disease process.

Cloacal: The common cavity into which the intestinal, genital and urinary tract open in

vertebrates such as birds, fish, reptiles and some primitive mammals.

Colostrum: The first secretion from the mammary glands after giving birth, rich in antibodies.

Communicable: Capable of being transmitted from one person/species to another, infectious or

contagious in nature.

Convulsions: Uncontrolled shaking of the body as a result of the body muscles rapidly and

repeatedly contracting and relaxing.

Counter immuneelectrophoresis: A laboratory technique that uses an electrical current to migrate antibodies and antigens across a buffered agar gel. Used to diagnose bacterial infections.

A reduction in population by selective slaughter. Usually implemented to restrict

disease movement.

Culture: medium.

Culling:

The growth and multiplication of biological cells in a controlled nutrient-rich

Cutaneous: Relating to or affecting the skin.

Decontamination: The process of cleansing to remove contamination from substances.

Definitive host: An animal in which a pathogen lives and reproduces.

Diagnosis: Determining the nature and cause of a disease through examination of physical and

chemical symptoms.

Diagnostician: Person that performs diagnostics.

Diagnostics: The science and practice of diagnosis.

Disease: A departure from a state of health or any impairment to health resulting in

physiological dysfunction.

Disease agent: An organism capable of causing disease *i.e.* viruses, bacteria, fungi, protozoa,

helminths or arthropods.

Disease ecology: The interaction of the behaviour and ecology of hosts with the biology of

pathogens in relation to the impacts of diseases on populations.

Ecohealth: The concept of health at the level of ecosystem, appreciating the interconnectivity

of humans and all living organisms and functions within this and how these linkages

are reflected in a population's state of health.

Ecological: The relationship between organisms and their environment.

Ecthyma: A contagious viral disease of sheep and goats marked by lesions on the lips.

Ectoparasite: An external parasite.

ELISA: Enzyme-linked immunosorbant assay. A diagnostic test that uses disease specific

proteins (antigens or antibodies) to detect antibodies (or antigens), and therefore

disease.

Emerging disease: A disease that has appeared in a population for the first time, or that may have

existed previously but is rapidly increasing in incidence or geographic range, or has

recently evolved from another disease.

Encyst: Enclose or become enclosed in a cyst.

Endemic: Native to a population, or a disease characteristic of a particular area.

Endogenous: Originating from within an organism.

Endoparasite: An internal parasite.

Enteric: Relating to or being within the intestines.

Entomopathogens: Pathogens that infect insects.

Epidemic: A disease affecting many organisms at the same time, spreading rapidly within a

population where the disease is not usually prevalent.

Epidemiology: The study of the distribution and determinants of health-related states and its

application to the control of diseases.

Equid: Member of the Equidae family *i.e.* wild or domestic horses.

Eradicate: To exterminate an infectious agent so no further cases of a specific disease arise.

Exotic: Non-native species introduced to areas where they do not naturally occur.

Flukes: Also known as trematodes, a class of parasitic flatworm.

Fomites: Inanimate objects on which disease agents may be transported (e.g. bedding or

faeces).

Gastroenteritis: Inflammation, infection or irritation of the digestive tract, particularly the stomach

and intestine.

Genetic resistance: Genetically determined resistance to specified infectious agents.

Haemorrhage: Profuse bleeding from ruptured blood vessels.

Health: A positive state of physical and mental well-being.

Helminth: Parasitic worm.

Herbivorous: Plant eating animals.

Heterozygosity: The state of being heterozygous *i.e.* having dissimilar alleles at corresponding

chromosomal loci – having genetic diversity.

Histopathology: Diagnosis and study of disease by expert interpretation of cells and tissue samples.

Horizontal transmission:

Transmission of an infectious agent between members of the same species.

Host: An organism in which another, usually parasitic, organism is nourished and

harboured.

Host range: The range of host species which a particular pathogen is able to infect.

HPAI H5N1: Highly pathogenic avian influenza. H5N1 refers to the combination of

haemagglutinin (H) and neuraminidase (N) proteins on the surface of the virus coat

protein.

Hydrology: Pertains to the movement, distribution and quality of water.

Hyphae: Long, branching filamentous structures of a fungus.

lodophore: A solution that contains iodine and a surface-active agent, it releases iodine

gradually to act as a disinfectant.

Immunity: The condition of being immune refers to a state in which a host is not susceptible

to infection or disease from invasive pathogens.

Immunocompetence: The ability of the body to resist disease and distinguish between alien and

endogenous bodies.

Immunocompromise: Having an impaired immune system and therefore a reduced ability to mount an

immune response and fight infection.

Immunofluorescence: A laboratory technique used to detect the presence of an antigen or antibody in a

sample by coupling a specific interactive antigen or antibody with a fluorescent

compound.

Immunohisto-

chemistry:

The application of immunological techniques to the chemical analysis of cells and

tissues.

Immunologically

naïve:

Pertaining to an immune system not previously exposed to stimuli from

pathogens.

Immunosuppression: The inhibition of the normal immune response because of disease, administration

of drugs or surgery.

Incidence: The number of individual cases of disease in relation to the population at risk.

Infection: Occurs when one living organism (the host) is invaded by another living organism.

This may be clinically inapparent or result in only local cellular damage. The infection may remain localised, subclinical and temporary if the immune system is effective. A local infection may persist and spread to become an acute, subacute

or chronic clinical infection or disease state when micro-organisms gain access to

lymphatic or vascular systems.

Infectious: Capable of being transmitted between host organisms.

Intermediate host: An animal in which a parasite lives in a non-sexual, larval stage.

Intervention: The act of intervening in a disease or epidemiological sequence.

Intraspecific: Arising or occurring within a species.

Invasive alien

species:

Species that have been introduced outside their natural distribution area.

Keystone species: A species with a disproportionate impact *i.e.* positive function, on its ecosystem

relative to biomass and abundance.

Larvicide: An insecticide specifically targeted against the larval life stage of an insect to halt

the life cycle.

Lesion: A region in an organ or tissue that has suffered damage through injury or disease.

Live vaccine: A vaccine containing a weakened form of the organism that causes the disease.

Also known as an attenuated vaccine.

Maintenance host: An animal which is capable of acting as natural source of infection for other

individuals of the same species (see reservoir host).

Meningeal: Of or affecting the meninges (the membrane system that envelope the central

nervous system).

Metacercaria: The encysted larva of a trematode in an intermediate host.

Metamorphs: Amphibian life-cycle stage between larvae and adult.

Microbial: Pertaining to microorganisms.

Microorganisms: Microscopic organism such as bacteria, virus, fungi or protozoa.

Microprogagated: The production of a large number of individual plants from a piece of plant tissue

cultured in a nutrient medium.

Miracirdium: Free-living, ciliated, first larva stage of the trematode lifecycle.

Mitigate: To moderate or alleviate a condition.

Morbidity: Incidence of clinical cases of a disease in a given population.

Mortality: The incidence of death in a given population in a given period. The incidence of

death among animals affected by a particular disease or condition.

Mustelids: Member of the Mustelidae family (includes weasel, ferret, mink, otter and skunk).

Necrophagy: Eating dead bodies or carrion.

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Necropsy: Post mortem examination.

Non-infectious: Not capable of being transmitted between host organisms.

Non-zoonotic: Disease or infection which cannot be naturally transmitted from vertebrate animals

to humans (noun: non-zoonosis). See 'zoonosis'.

Notifiable: A disease which must be reported to the relevant national and international

authority (i.e. OIE).

Novel disease: A novel disease is one that has not previously been exposed to a given species or

population. This may be due to mutation of the organism that is responsible for the

disease.

Obligate: Used to describe an organism which is bound or restricted to a certain habitat, host

or environment.

Oomycetes: Marine, freshwater and soil living non-photosynthetic algae-like fungi, includes

water moulds and downy mildews.

Oropharyngeal: Of, or relating to, the oropharynx, which is the part of the pharynx, between the

soft palate and the epiglottis.

Ovid: Member of the Ovidae family *i.e.* wild or domestic sheep.

Oviposition: Process of depositing or laying eggs.

Paralysis: Temporary or permanent loss of muscle function in the body.

Parasite: Used in this context to be synonymous with *pathogen*. However, the

microparasites (viruses, bacteria, fungi and protozoa) tend to be referred to as pathogens. Macroparasites refer to helminths and arthropods and are often

referred to simply as parasites.

Parasite load: A measure of the degree of which a host is burdened by parasites.

Pathogen: An organism capable of causing infection and disease *i.e.* viruses, bacteria, fungi,

protozoa, helminths or arthropods.

Pathogenic: Causing disease or capable of doing so.

Pathogenicity: A pathogen's ability to cause disease. Similar to the term 'virulence' but broader

because it is more of a qualitative term.

Pathology: The study of the structural and functional changes in the fluids, cells, tissues and

organs of the body.

PCR: Polymerase chain reaction (PCR): a technique in molecular biology to amplify a

single or a few copies of a piece of DNA or RNA across several orders of magnitude, generating thousands to millions of copies of a particular sequence allowing easier

detection.

Peacetime: Used in this context to mean before a problem.

Phytosanitary: Relating to the health of plants and the prevention of spreading plant diseases.

Post mortem: After death but often used to refer to medical/veterinary examination of a dead

body (short for *post mortem* examination).

Poultry: Term referring to domestic birds bred for meat, eggs and/or feathers. Includes

chickens, turkeys, ducks, geese, quail etc.

Prevalence: A general term describing the commonality of a disease or condition in a group of

animals. Proportion of individuals within a given population with disease at a given

time.

Protist: Mostly single-celled, but some multicellular, organisms in the kingdom Protista.

Includes protozoans, eukaryotic algae and slime moulds.

Pulmonary: Pertaining to the lungs.

Quarantine: A period of isolation to cover the incubation period of a certain disease which

reduces disease transmission to the remaining population.

Redia: The cylindrical larval stage of some trematodes.

Reservoir host: Refers to host organisms that serve as a source of infection by sustaining a

population of an infectious pathogen, often with immunity to the disease. Pathogens may 'spillover' from reservoir populations to cause disease in nearby

susceptible hosts which may be a different species.

Resilient: Ability to recover quickly or withstand adverse conditions.

Resistant: Ability of an organism to remain uninfected and/or unaffected by agents.

Scrapie: Degenerative brain disease of sheep.

Secretions: Substances secreted from the blood or cells (e.g. saliva, mucus, tears, bile, and

hormones).

Sentinel herd: Small herd of susceptible hosts located in geographically representative areas used

to detect prevalent diseases.

Septicaemia: Blood poisoning, invasion of the bloodstream by virulent microorganisms from a

focus of infection.

Serological: Relates to serum and antigen-antibody reactions.

Serovar: A group of closely related microorganisms distinguished by a characteristic set of

antigens.

Slurries: Thin, watery mixtures of fine, insoluble material such as clay, cement, soil, or

faeces.

Spatial variation: Differences in a landscape usually associated with populations. For example, this

may be related to habitat or weather differences.

Spillback: Reverse spillover of infectious agents from wildlife to sympatric populations of

susceptible animals (often domesticated species).

Spillover: The transmission of infectious agents from reservoir animal populations (often

domesticated species) to sympatric wildlife.

Spore: An infectious body produced within bacteria.

Sporocyst: The larva of a trematode worm that produces redia larvae by asexual reproduction.

Sterile: Free from microorganisms.

Stressors: A chemical or biological agent, an environmental condition, an external stimulus or

an event that causes stress to an organism (e.g. capture, overcrowding, harassment

by humans or other animals).

Subclinical: A mild infection or early stage infection with no detectable symptoms.

Substrate: A surface on which an organism grows.

Suid: Member of the Suidae family *i.e.* wild or domestic pigs (including warthog, babirusa

and bush pigs).

Susceptibility: The state of being susceptible *i.e.* readily affected by disease.

Symbiont: An organism in a symbiotic relationship *i.e.* a relationship of mutual benefit or

dependence.

Syndromes: The result of the combination of clinical signs or symptoms that collectively

indicate or characterise a disease.

Taxa: Plural of taxon. A taxonomic category for the classification of organisms.

Toxin: A type of poisonous substance.

Transmission: Transfer of an infection from one source to another.

Trypanotolerant: Trypanotolerant and trypanotolerance describe the condition of being able to resist

trypanosomiasis e.g. some endemic breeds of cattle.

Vector: A carrier which transfers an infectious agent from one host to another *e.g.* a tsetse

fly carries trypanosomes from animals to humans and other animals.

Vertical transmission: Transmission of an infectious agent between different generations within a

population *i.e.* mother to offspring.

Viable: Capable of function under favourable conditions.

Virion: The infective form of a virus.

Virulence: The severity to which a microorganism can cause disease, similar to pathogenicity.

Waterbird: Species of birds ecologically dependent on wetlands for at least part of their annual

cycle. Synonymous with 'waterfowl'.

Water-borne disease: A disease caused by pathogenic micro-organisms that are most commonly

transmitted in contaminated fresh water.

Zoonosis: Disease or infection which can be naturally transmitted from vertebrate animals to

humans (plural: zoonoses; adjective: zoonotic).

Zoosanitary: Relating to the health of animals and the prevention of spreading animal diseases

through cleaning and containment practices.

Zoospore: A motile asexual spore that uses a flagellum for locomotion