FAO/China Intensive Training Course on Tilapia Lake Virus (TiLV)
Sun Yat Sen University, Guangzhou, China
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TRAINING COURSE SESSION MODULES
SESSION 6
Emergency preparedness and contingency plan

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SESSION 6
Emergency preparedness and contingency plan

Introduction

Emergency preparedness is the ability to respond effectively and in a timely fashion to disease emergencies (e.g. disease outbreaks, mass mortalities). The capability to deal with emergency disease situations requires a great deal of planning and coordination (including establishing operational, financial and legislative mechanisms) and making available required resources (i.e. skilled personnel and essential equipment). As long as there is importation of live aquatic animals, the possibility of serious disease outbreaks due to exotic pathogens will exist.

The objectives of an emergency response are to:

- prevent the incursion of exotic pathogens and pests
- put in place a rapid, well-organized and appropriate response to an emergency disease incident
- have a successful management of disease outbreaks

Early warning, early detection and early response are some of the most important elements of an effective emergency response. Early warning requires having advance knowledge of high-risk diseases likely to threaten national biosecurity before pathogens enter territory. This also depends on excellent awareness of current disease situation of trading partners and emerging diseases at global level. It requires good communication linkages and access to disease databases.

Contingency plans allow fast decisions and effective response to disease incursions, and their development is an effective way of getting stakeholder engagement and ownership of an emergency preparedness and response systems (EPRS).

Simulation exercise is one of the most effective ways to evaluate and test disease preparedness plans and can be used for training and for assessing decision-making processes, coordination, teamwork, etc. These exercises could be desk top or field exercises.

Learning objectives

This session will assist workshop participants to understand and gain further knowledge on a very important element of a National Strategy on Aquatic Animal Health – Emergency Preparedness and Contingency Plan.

Learning outcomes

At the end of the course module, participants will:

- gain knowledge on the objectives and elements of emergency preparedness;
- assess the accuracy of the information collected related to an EPRS audit;
- understand the important components of a disease strategy manual (part of contingency plan) and how they can be applied in a disease investigation scenario;

- gain experience in an interactive emergency preparedness simulation exercise (desk-top and field), their requirements and application
- be able to elaborate on EPRS of the National Action Plan on TiLV

Module duration

Day 6 (6/23): 13:00-17:00
Day 7 (6/24): 08:30-10:15

Lectures

- Principles of emergency preparedness and contingency plans (MR)
- Emergency preparedness and response system (EPRS) audit (MR)
- TiLV disease strategy manual (part of contingency plan) (KT)
- Emergency preparedness simulation exercise (FM/MDJ)

Working group activity

- Emergency preparedness and response system (EPRS) audit (MR)
- Emergency preparedness simulation exercise (interactive – desk top simulation and field simulation)

Background documents

- ppt presentations
- EPRS audit self assessment survey questionnaires
- TiLV disease strategy manual
- Simulation exercise steps
- Checklist etc.

Key references

- **Arthur, J.R.; Baldock, F.C.; Subasinghe, R.P.; McGladdery, S.E. 2005,** Preparedness and response to aquatic animal health emergencies in Asia: guidelines. *FAO Fisheries Technical Paper*. No. 486. Rome, FAO. 2005. 40p. http://www.fao.org/docrep/009/a0090e/a0090e00.htm

Details of person completing the survey questionnaire

Country:

Contact information for person completing this survey:

Name:

Title:

Institution:

Mailing address:

Telephone:

Facsimile:

E-mail:

Signature of completing official:

Date:

SECTION 1. General administration

1.1. Provide a brief description of the national government agency (national authority) that carries primary responsibility for managing the country's aquatic emergency disease preparedness and response system.

1.2. Provide a diagram of the hierarchy of key policy, administrative and technical staff within the national agency responsible for preparedness and response to emergency aquatic animal diseases.

1.3. Provide a diagram showing the relationship between this agency and other national agencies and state/provincial and local government agencies.

1.4. Describe the degree to which the national authority's aquatic EPR system is integrated with other emergency preparedness and response arrangements (e.g. equivalent terrestrial animal disease response arrangements or a national disaster response plan).

1.5. Describe how the country's aquatic EPR system is integrated with other elements of the country's national aquatic animal health management framework (e.g. IRA, import control, farm biosecurity plans, zoning/compartmentalization)?

1.6. Is there a nominated officer (or officers) responsible for the country's EPR system?

a. Describe the officer's responsibilities with respect to planning and coordinating the national aquatic animal emergency disease preparedness and response system.

b. Is the officer a high-level government officer within the agency that has primary responsibility for aquatic animal emergency disease preparedness and response, such as the national chief veterinary officer or director of fisheries?

1.7. Is there a National Aquatic Emergency Preparedness and Response Committee (or similar group) with responsibility to oversee and drive the planning and on-going maintenance of a national aquatic animal emergency disease preparedness and response system?

a. What is the relationship between the committee and the 'responsible officer" – what is the responsible officer's role in that committee – for example, is he/she the chair of that committee?

b. What are the committee's terms of reference?

1.8. Does the country have a National Emergency Disease Planning Officer/s (NEDPO) or equivalent with knowledge of aquatic epidemiology or on-ground aquatic animal disease management?

a. What are his/her responsibilities? Do these responsibilities include acting as adviser to the aquatic EPR committee?

Communications

1.9. Describe the degree of consultation that the national authority has undertaken (or intends to undertake) in developing the country's aquatic EPR system (including farmers, processors, transporters, wholesalers/traders, provincial/local government jurisdictions, neighbouring countries).

1.10. Describe any rapid communication plans that are in place for accurate information dissemination during emergency disease responses?

Risk analysis

1.11. Has the national authority conducted risk analysis to identify high priority aquatic disease threats on which to focus response plans? If so, describe these analyses.

Operational capacity/capability

1.12. Describe the degree to which the national authority maintains national operational capability including establishment of early warning systems, early detection systems, national field diagnostic capability for emergency diseases, laboratory diagnostic capability, disease surveillance, reporting systems and access to disease management/epidemiology expertise.

Contingency plans

1.13. Describe any national contingency plans the national authority has developed for dealing with aquatic animal disease emergencies.

Personnel skills

1.14. Has the national authority ensured designated government and industry personnel have the necessary skills to support emergency preparedness and response activity, including through recruitment standards, succession planning, training and awareness building? If so, briefly outline these capabilities.

Resource allocation

1.15. Has the national authority assessed infrastructure and personnel requirements for an effective aquatic EPR system, and set up systems for allocating finances/resources during emergency responses?

Legislation

1.16. Describe the legislation that gives the national authority power to apply control measures during emergencies?

Systems review and improvement

1.17. Describe if and how the national authority regularly tests and improves the effectiveness of the aquatic EPR system; for example, through simulation exercises, field exercises and regularly review contingency plans to ensure effective and well-coordinated implementation?

SECTION 2. Aquatic EPR System Elements

EARLY WARNING SYSTEM

Intelligence gathering

2.1. Describe if and how the national authority monitors aquatic animal disease events in other countries (such as through the internet e.g. via the International Biosecurity Intelligence System (IBIS) [http://biointel.org/], monitoring of scientific literature and conference attendance)?

International reporting

2.2. Describe if and how the regularly national authority checks (and contributes to) Network of Aquaculture Centres in Asia-Pacific (NACA) or World Organisation for Animal Health (OIE) disease reporting systems?

Trading partner networks

2.3. Describe any formal and/or informal lines of communication that the national authority has with key aquatic animal commodity trading partner countries with respect to information exchange on disease incidents?

EARLY DETECTION SYSTEM

Personnel competencies

2.4. Describe the degree to which front line individuals at the 'pond level' (including, farmers, farmer associations, health professionals, fisheries extension officers and officers of local disease control centres have the knowledge required to:

a. recognize a suspected disease emergency

b. report findings to the appropriate provincial or national authority responsible for declaring a disease emergency and coordinating a response?

2.5. Describe the degree to which local government (such as at the village or county level) and industry personnel (including extension staff, designated departmental officers, farmers leaders, research staff officers of local disease control centre, fisheries organizations, processors and brokers) have the knowledge required to:

a. recognise a disease emergency

b. report to the appropriate authority?

2.6. Describe the degree to which national level government staff (personnel from national research laboratories, main authority departments, national disease control centres) have the knowledge required to:

a. organise and coordinate surveillance for early warning

b. organise and coordinate disease reporting?

Standard operating procedures (SOPs)

2.7. Describe any SOPs or similar instructional material provided to designated government and industry personnel given responsibility for the above tasks. How often are these SOPs reviewed and updated?

Awareness building / training programmes

2.8. Describe any on-going awareness building and training programs to ensure designated government and industry personnel are trained to undertake the tasks described above.

National information sharing networks

2.9. Describe any arrangements for sharing of EPR related information nationally (through either formal or informal lines of communication) with academics/researchers, industry representatives and aquatic animal health professionals; for example, through the establishment and regular meetings of advisory groups.

Surveillance systems

2.10. Describe any national, state/provincial or local passive surveillance programs for targeted and non-targeted diseases or active surveillance programs for targeted diseases.

Disease reporting

2.11. Does the national authority maintain a national list of reportable diseases, incorporating internationally reportable diseases and other diseases on concern to the country?

2.12. Is there a national aquatic animal disease reporting system that allows for rapid reporting of suspected diseases or disease agents of concern?

2.13. Does the reporting system include:

a. legal obligations on farmers, aquatic animal health management professionals, diagnostic laboratories to report any abnormal moralities/morbidity to government authorities — for farmers, health professional and diagnostic laboratories this could for example be done as part of license or permit requirements?

b. a widely known, ready means of notifying the relevant agencies (for example through a free-call telephone number)?

2.14. Is there legislation to support the country's requirements for mandatory reporting?

2.15. Is there a formal communication system for notifying the central authority?

2.16. Is there a clear reporting mechanism for farmers, health professional etc, with information ultimately being reported to the national authority and the Responsible Officer?

Rapid diagnostic capability/capacity

2.17. Are there clear instructions to aquatic animal health personnel in the field with respect to security measures for collecting, packaging and transporting samples to designated laboratories?

2.18. Does the country have access to rapid laboratory diagnostic capability/capacity for confirmation of a disease or disease agent of concern, including ability to differentiate exotic or emerging diseases from endemic ones? This diagnostic capacity should ideally be within the country, but can also be in other countries provided that there are formal arrangements for ready access to confidential diagnostic services (e.g. through MOUs).

2.19. Are there Standard Operating Procedures for diagnostic analyses at national reference laboratories?

2.20. Are there documented procedures for confirmation of diagnosis, if necessary, at an OIE Reference Laboratory (recommended for OIE-listed disease agent detection for the first time in a country, or for a suspect detection in an "abnormal" aquatic host species)?

2.21. Is there a regularly updated national list of expertise and laboratory capacity for disease diagnosis, including identification of exotic disease agents of concern?

EARLY RESPONSE SYSTEM

Personnel competencies

2.22. Describe the degree to which front line individuals at the 'pond level' (including, farmers, farmers associations, health professionals, fisheries extension officers and officers of local disease control centres have the knowledge required to:

a. introduce precautionary movement controls if necessary, pending advice from relevant authorities'

b. facilitate implementation of the response proper, provide assistance to affected the site and assist in communication of information as it becomes available, and

c. provide local/national authorities with information as well as any movement of live animals prior to disease outbreak?

2.23. Describe the degree to which local government (such as at the village or county level) and industry personnel (including extension staff, designated departmental officers, farmers leaders, research staff officers of local disease control centre, fisheries organizations, processors and brokers) have the knowledge required to:

a. coordinate early response controls between affected farmers, fisheries interest, related stakeholders, local authorities and State/Province level authorities

b. implement recommended control options to prevent diseases spread, both prior to and following diagnosis confirmation

c. coordinate early response controls between affected farmers.

2.24. Describe the degree to which state/provincial level government staff (departmental officers, research personnel and officers of state/provincial authority disease control centres) have the knowledge required to:

a. Identify a disease emergency

b. Identify risks associated with suspected outbreak of pathogen

c. Assist with confirmation of suspected diagnosis using local/ national expertise or an OIE reference laboratory

d. Report confirmation to the national authority

e. Ensure implementation of suggested control options, both pending and following diagnostic confirmation.

2.25. Describe the degree to which national level government staff (personnel from national research laboratories, main authority departments, national disease control centres) have the knowledge required to:

a. confirm the disease diagnosis with the reference laboratory

b. analyse risks associated with the reported outbreak scenario

c. define disease zones based on data from reporting laboratories.

Awareness building / training

2.26. Describe any programmes in place for on-going awareness building and training to ensure designated government and industry personnel have the skills to undertake the tasks described above.

Standard operating procedures (SOPs)

2.27. Are there regularly updated SOPs for designated government and industry personnel given responsibility for the above tasks?

2.28. Are there standard 'job cards' summarizing tasks for key personnel involved in response?

Contingency plan documents

2.29. Describe any documentation that the national authority maintains for purposes of emergency response; for example, a summary document, response management manuals, enterprise manuals, disease strategy manuals or operational procedures manuals.

SECTION 3. Operational Support Systems

Legislation

3.1. Describe the country's legislation supporting the range of potential actions that may be taken in responding to a disease emergency, such as access to farm premises, taking of samples, movement controls or mandatory stock disposal.

3.2. Is there a summary of legislative powers documented separately or incorporated into relevant response manuals?

Information management systems

3.3. Describe the country's information management systems that allow data collection, collation and analysis, including spatial mapping capability.

Communications systems

3.4. Describe any prearranged systems for communication with key stakeholders including interaction with the media.

Resources

3.5. Does the country have ready access to technical expertise in aquatic animal disease control, including epidemiology? Are these arrangements documented?

3.6. Does the country have pre-agreed access to staffing resources to handle surge activity associated with emergency responses? Are these arrangements documented?

3.7. Does the country have pre-agreed stand-by financial resources to fund preparedness and response activities? These may include for example pre-agreed funds to compensate farmers against stock losses due to mandatory destruction. Are these arrangements documented?

SECTION 4. Other information

4.1 Please provide any information about the country relating to its aquatic EPR system that you feel has not been adequately captured i