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QUARTERLY AQUATIC ANIMAL DISEASE REPORT (Asia and Pacific Region)

July – September 2013

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Contents

Foreword

OIE Tool for the Evaluation of Performance of Aquatic Veterinary Services

Paris - In this era of globalisation, the development and growth of many countries, as well as the prevention and control of major biological disasters, depends on the performance of their agricultural and food policies and economies, and this, in turn, directly relates to the quality of their Veterinary Services (VS).

Strengthening of VS to help them comply with OIE international standards for quality and evaluation requires active participation and investment by both the public and the private sector. The World Organisation for Animal Health (OIE) has refined an Evaluation Tool which is designed to assist VS to establish their current level of performance, to identify gaps and weaknesses in their ability to comply with OIE international standards, to form a shared vision with stakeholders (including the private sector) and to establish priorities and carry out strategic initiatives.

The production of and trade in aquatic animals and their products is of increasing importance and the aquaculture sector is growing fast in response to the strong and growing global demand for high quality protein. In some countries the VS are the competent authority for aquatic animal health services (AAHS), but in some countries other agencies of government hold this responsibility.

Regardless of whether veterinarians are involved in the AAHS, it is clear that the general principles for quality would be similar to those that apply to VS. For example, appropriate legislation and good governance are required to support AAHS in complying with OIE requirements, including for disease detection, reporting and control.

The application of the PVS Tool to the evaluation of AAHS commenced in 2009 when the OIE undertook a pilot mission in Vietnam. Following this mission and several subsequent missions, it was clear that a stand-alone tool for the evaluation of an AAHS was necessary due to differences between the terrestrial and aquatic sectors. The OIE has developed the OIE Tool for the Evaluation of Performance of Veterinary Services and/or Aquatic Animal Health Services ("OIE PVS Tool: Aquatic") which is based on the sixth edition of the OIE PVS Tool and includes amendments to some critical competencies (CC) and Levels of Advancement so that the Tool is more appropriate for the evaluation of the performance of AAHS.

Applying the "OIE PVS Tool: Aquatic"
To establish the current level of performance, form a shared vision, establish priorities and carry out strategic initiatives, six to thirteen critical competencies have been elaborated for each of the four fundamental components. For each critical competency, qualitative levels of advancement are described. A higher level of advancement assumes that the VS / AAHS are complying with the preceding (non 1) levels (i.e. level 3 assumes compliance with level 2 criteria; level 5

assumes compliance with level 4 and preceding criteria; etc.). Additional critical competencies might be added with the evolution of these tools.

The OIE has provided a Manual for Assessors, containing information and procedures relevant to the conduct of an OIE PVS Evaluation, including a list of suggested indicators used by PVS assessors. Chapter 3.1. of the Aquatic Animal Health Code (Aquatic Code) provides a legal base for the OIE quality requirements for AAHS where these are not covered by the Veterinary Services.

The benefits and outcomes of using the OIE PVS Tool and the OIE PVS Tool: Aquatic include:

- An indication of overall performance for each of the four components and a relative performance rating within each of the critical competencies;
- A basis for comparing the performance of the VS / AAHS with that of other relevant government services in the region or globally, in order to explore areas for cooperation or negotiation;
- Providing the basis for carrying out a process of verifying compliance with the OIE standards and assessments of VS / AAHS by external or independent bodies under the guidelines and auspices of the OIE;
- Where gaps in the legislative framework are identified in the course of a PVS Evaluation, through the conduct of an OIE Veterinary Legislation Identification Mission, obtaining an indication of the specific actions needed to modernise the veterinary legislation in compliance with OIE standards. Where relevant, the next step is a memorandum of undertaking between the OIE and the Member of specific activities on legislation;
- Through the conduct of a specific follow up, i.e. the OIE PVS Gap Analysis, helping countries to identify priorities and present justifications when applying for national and/or international financial support (loans and/or grants) from national governments or international donors;
- Providing a basis for establishing a routine monitoring and follow up mechanism on the overall level of performance of the VS / AAHS over time;
- Helping to determine the benefits and costs of investing in VS / AAHS and, through the conduct of specific follow up activities, identifying the actions and securing the investments that are needed to help improve compliance with the OIE standards for Good Governance.

See http://www.oie.int/en/support-to-oie-members/pvs-evaluations/oie-pvs-tool/ for more information and to download a copy of the “OIE PVS Tool: Aquatic.”

Reports Received by the NACA Secretariat

Country: AUSTRALIA **Period: July - September 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	-(2012)	-(2012)	-(2012)		1
2. Infectious haematopoietic necrosis	0000	0000	0000		
3. Spring viraemia of carp	0000	0000	0000		
4. Viral haemorrhagic septicaemia	0000	0000	0000		
5. Epizootic ulcerative syndrome	-(2012)	+	-(2013)	III	2
6. Red seabream iridoviral disease	0000	0000	0000		
7. Koi herpesvirus disease	0000	0000	0000		
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000		
9. Viral encephalopathy and retinopathy	-(2013)	-(2013)	-(2013)		3
10.Enteric septicaemia of catfish	(2011)	(2011)	(2011)		4
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	-(2013)	-(2013)	-(2013)		5
3. Infection with abalone herpes-like virus	-(2011)	-(2011)	-(2011)		6
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
6. Acute viral necrosis (in scallops)	***	***	***		
7. Akoya oyster disease	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	0000	0000	0000		
3. Yellowhead disease	0000	0000	0000		
4. Infectious hypodermal and haematopoietic necrosis	-(2008)	-(2008)	-(2008)		7
5. Infectious myonecrosis	0000	0000	0000		
6. White tail disease (MrNV)	-(2008)	-(2008)	-(2008)		8
7. Necrotising hepatopancreatitis	0000	0000	0000		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	0000	0000	0000		
9. *Monodon* slow growth syndrome	0000	0000	0000		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	***	***	***		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	-(2008)	-(2008)	-(2008)		9
2. Infection with *Batrachochytrium dendrobatidis*	-(2013)	-(2013)	-(2013)		10
ANY OTHER DISEASES OF IMPORTANCE					
1. Virus isolated from Atlantic salmon	-(2013)	-(2013)	+	III	11
2.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	Occurrence limited to certain zones
+	Disease reported or known to be present	***	No information available
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	0000	Never reported
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	**Epizootic haematopoietic necrosis** was not reported this period despite passive surveillance in Victoria (last reported 2012), the Australian Capital Territory (last reported 2011), New South Wales (last reported 2009) and South Australia (last reported 1992). Passive surveillance and never reported in the Northern Territory, Queensland, Tasmania and Western Australia.
2	**Epizootic ulcerative syndrome** 1. **Reported in Queensland** in August, screening; 2. **Species affected** – Spikey bream (*Acanthopagrus sp.*); 3. **Clinical signs** – skin ulceration on the flank of several spikey bream caught 4. **Pathogen** – *Aphanomyces invadans*; 5. **Mortality rate** – Nil, 6. **Economic loss** – Nil; 7. **Geographic extent** – Limited to waters close to Jumpinpin in southeast Queensland; 8. **Containment measures** – Not applicable,; 9. **Laboratory confirmation** – Histopathology; 10. **Publications** – None. **Epizootic ulcerative syndrome** is known to have occurred previously in New South Wales (last reported 2012), the Northern Territory (last reported 2012), Victoria (last reported 2012), Western Australia (last reported 2012) and South Australia (last reported 2008). Passive surveillance and never reported in Tasmania. No information available in the Australian Capital Territory.
3	**Viral encephalopathy and retinopathy** was not reported this period despite passive surveillance in the Northern Territory (last reported 2013), Western Australia (last reported 2013), Queensland (last reported 2013), New South Wales (last reported 2010), South Australia (last reported 2010) and Tasmania (last reported 2000). Passive surveillance and never reported in Victoria. No information available in the Australian Capital Territory.

4	**Enteric septicaemia of catfish** was not reported this period and has never been reported from wild fish in Australia. Passive surveillance and reported previously in the Northern Territory [in a closed aquarium facility also holding imported ornamental fish] (last reported 2011), Queensland (last reported 2008) and Tasmania (last reported 2001) in zebrafish (*Brachydanio rerio*) held in PC2 containment facilities. Passive surveillance and never reported in New South Wales, South Australia, Victoria or Western Australia. No information available this period in the Australian Capital Territory.
5	**Infection with *Perkinsus olseni*** was not reported this quarter despite passive surveillance in South Australia (last reported 2013), New South Wales (last reported 2005). Not reported despite targeted surveillance in Western Australia (last reported 2003). Passive surveillance and never reported in the Northern Territory, Queensland, Tasmania and Victoria. No information available for the Australian Capital Territory (suceptible species not present and no marine water responsibility).
6	**Infection with abalone herpesvirus (abalone viral ganglioneuritis)** was not reported this period despite targeted surveillance in Tasmania (last reported 2011) and passive surveillance in New South Wales (last reported 2011 and eradicated following detection in contained commercial live-holding facilities), and Victoria (last reported 2010). Passive surveillance and never reported in the Northern Territory, Queensland, South Australia and Western Australia. No information available this period for the Australian Capital Territory (no marine water responsibility).
7	**Infectious hypodermal and haematopoietic necrosis** virus was not reported this period despite passive surveillance in Queensland (last reported 2008) and Northern Territory (last reported 2003). Passive surveillance and never reported in New South Wales, South Australia, Victoria and Western Australia. No information available this period in the Australian Capital Territory (no marine responsibility) and Tasmania (susceptible species not present).
8	**White tail disease** was not reported this period despite passive surveillance in Queensland (last reported 2008). Passive surveillance and never reported from the Australian Capital Territory, New South Wales, the Northern Territory, South Australia, Victoria and Western Australia. No information available this period in Tasmania.
9	**Infection with ranavirus** was not reported this period despite passive surveillance in the Northern Territory (last reported 2008, prior to official reporting for ranavirus). Suspected but not confirmed through passive surveillance in Queensland. Passive surveillance and never reported in Tasmania. No information available this period in the Australian Capital Territory, New South Wales, South Australia, Victoria and Western Australia.
10	**Infection with *Batrachochytrium dendrobatidis*** was not reported this period despite targeted surveillance in Tasmania (last reported 2013), passive surveillance in Victoria (last reported 2011) and Western Australia (last reported 2008). Suspected but not confirmed through passive surveillance in Queensland. No information available this period in the Australian Capital Territory, New South Wales, the Northern Territory, and South Australia.
11	**Virus isolated from Atlantic salmon.** A novel virus has been detected in association with mortalities of cage-cultured Atlantic salmon in south eastern Tasmania. The virus was initially considered to be an incidental finding; however, some sporadic detections have been made in association with variable mortality of smolt. Viral ultrastructure resembles that of the Orthomyxoviridae. Further characterisation, including sequencing is pending. Infectious salmon anemia virus has been excluded through OIE recommended assays. Investigations are on-going to characterise the virus, better understand its epidemiology, and determine its significance as a pathogen of salmon.

2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: HONG KONG SAR **Period: July - September 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000	II	
2. Infectious haematopoietic necrosis	0000	0000	0000	III	
3. Spring viraemia of carp	0000	0000	0000	III	
4. Viral haemorrhagic septicaemia	0000	0000	0000	III	
5. Epizootic ulcerative syndrome	0000	0000	0000	III	
6. Red seabream iridoviral disease	-	+	-	III	1,2
7. Koi herpesvirus disease	-	-	-	III	1
Non OIE-listed diseases					
8. Grouper iridoviral disease	-	-	-	III	
9. Viral encephalopathy and retinopathy	-	-	-	III	
10.Enteric septicaemia of catfish	0000	0000	0000	II	
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000	II	
2. Infection with *Perkinsus olseni*	0000	0000	0000	II	
3. Infection with abalone herpes-like virus	0000	0000	0000	II	
4. Infection with *Xenohaliotis californiensis*					
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000	II	
6. Acute viral necrosis (in scallops)	0000	0000	0000	II	
7. Akoya oyster disease	0000	0000	0000	II	
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000	III	
2. White spot disease	-	-	-	III	
3. Yellowhead disease	0000	0000	0000	III	
4. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000	II	
5. Infectious myonecrosis	0000	0000	0000	II	
6.White tail disease (MrNV)	0000	0000	0000	II	
7. Necrotising hepatopancreatitis	0000	0000	0000	II	
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	0000	0000	0000	II	
9. *Monodon* slow growth syndrome	0000	0000	0000	II	
10. Acute hepatopancreatic necrosis syndrome (AHPNS)					
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000	II	
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000	II	
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	Occurrence limited to certain zones
+	Disease reported or known to be present	***	No information available
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	0000	Never reported
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	Infectious spleen and kidney necrosis virus was detected in a group of jade perches with 2% mortality and 2% morbidity reported.
2	Infectious spleen and kidney necrosis virus and red seabream iridovirus were detected in a group of giant groupers with 20% mortality and 50% morbidity reported.
3	

2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: INDIA **Period: July - September 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000		
3. Spring viraemia of carp	0000	0000	0000		
4. Viral haemorrhagic septicaemia	0000	0000	0000		
5. Epizootic ulcerative syndrome	-	-	-		
6. Red seabream iridoviral disease	0000	0000	0000		
7. Koi herpesvirus disease	0000	0000	0000		
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000		
9. Viral encephalopathy and retinopathy	0000	0000	0000		
10.Enteric septicaemia of catfish	0000	0000	0000		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	-	-	-		
3. Infection with abalone herpes-like virus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
6. Acute viral necrosis (in scallops)	0000	0000	0000		
7. Akoya oyster disease	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	+( )	+( )	+( )	I	1,2
3. Yellowhead disease	***	***	***		
4. Infectious hypodermal and haematopoietic necrosis	***	***	***		
5. Infectious myonecrosis	0000	0000	0000		
6.White tail disease (MrNV)	-	-	-		
7. Necrotising hepatopancreatitis	0000	0000	0000		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	0000	0000	0000		
9. *Monodon* slow growth syndrome	-	-	-		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	0000	0000	0000		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000		
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

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		+( )	Occurrence limited to certain zones
+	Disease reported or known to be present	***	No information available
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	0000	Never reported
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?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

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1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	**White spot disease (WSD):** Reported from very limited areas in Bhimavaram and Vijayiwada districts of Andhra Pradesh, Udupi and Uttar Kannada districts of Karnataka, Thane district of Maharashta, and Nagapattinam district of Tamil Nadu during different months under the reporting period.
2	*P. monodon* and *L. vannamei* were affected by WSD
3	

2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: INDONESIA Period: April - June 2013

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000		
3. Spring viraemia of carp	0000	0000	0000		
4. Viral haemorrhagic septicaemia	0000	0000	0000		
5. Epizootic ulcerative syndrome	0000	0000	0000		
6. Red seabream iridoviral disease	***	***	***		
7. Koi herpesvirus disease	+( )	***	+( )	III	1
Non OIE-listed diseases					
8. Grouper iridoviral disease	+( )	***	***	II	2
9. Viral encephalopathy and retinopathy	+( )	***	***	III	3
10.Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Infection with abalone herpes-like virus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
6. Acute viral necrosis (in scallops)	0000	0000	0000		
7. Akoya oyster disease	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	***	***	***		
2. White spot disease	+( )	***	***	III	4
3. Yellowhead disease	***	***	***		
4. Infectious hypodermal and haematopoietic necrosis	***	***	***		
5. Infectious myonecrosis	+( )	***	***	III	5
6.White tail disease (MrNV)	0000	0000	0000		
7. Necrotising hepatopancreatitis	0000	0000	0000		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	0000	0000	0000		
9. *Monodon* slow growth syndrome	0000	0000	0000		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	0000	0000	0000		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000		
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

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?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

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(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	**KHV** 1. **Origin of the disease/pathogen:** Hulu Sungai Tengah, Hulu Sungai Utara, Banjar Baru (South Kalimantan), Sukabumi, Kuningan (West Java) 2. **Species affected:** *Cyprinus carpio* 3. **Clinical signs:** wounded body, res spots on the body surface, gills damaged, most of the body surface flaking, haemorrhage. 4. **Pathogen:** Koi herpesvirus 5. **Mortality rate:** >50% (Hulu Sungai Tengah) ; 10-50% (Hulu Sungai Utara); <30% (Banjar Baru); low to high (Sukabumi and Kuningan) 6. **Economic loss:** - 7. **Names of infected areas:** Hulu Sungai Tengah, Hulu Sungai Utara, Banjar Baru (South Kalimantan), Sukabumi, Kuningan (West Java) 8. **Preventive/control measures:** eradication of infected fish, use of vaccine, supplementation with vitamins. 9. **Laboratory confirmation:** Freshwater Aquaculture Development Center Mandiangin Laboratory, Main Center Freshwater Aquaculture Development Sukabumi Laboratory. 10. **Publications :** not published.
2	**GIV** 1. **Origin of the disease/pathogen:** Mariculture Development Center Lombok 2. **Species affected:** *Epinephelus fuscoguttatus* 3. **Clinical signs:** decreased appetite, melanosis. 4. **Pathogen:** Iridovirus 5. **Mortality rate:** 30-60% (West Lombok); 6. **Economic loss:** - 7. **Names of infected areas:** West Lombok 8. **Preventive/control measures:** reduce density, vaccination; 9. **Laboratory confirmation:** Mariculture Development Center Lombok Laboratory; 10. **Publications:** not published.

3	**VER** 1. **Origin of the disease/pathogen:** Puhawang island (Lampung Province); 2. **Species affected:** *Cromileptes altivelis, E. fuscoguttatus* 3. **Clinical signs:** fin rot; 4. **Pathogen:** VNN; 5. **Mortality rate:** <30% 6. **Economic loss: -** 7. **Names of infected areas:** Pesawaran (Lampung Province); 8. **Preventive/control measures:** quarantine of sick fish, provision of good feed, vitamins and immunostimulants; 9. **Laboratory confirmation:** Main Center Mariculture Development Lampung Laboratory; 10. **Publications:** not published.
4	**WSD** 1. **Origin of the disease/pathogen:** Hanura (Lampung Province) 2. **Species affected:** *Litopenaeus vanname* 3. **Clinical signs: -** 4. **Pathogen:** White spot syndrome virus, white spot baculovirus complex 5. **Mortality rate:** <30%; 6. **Economic loss: -** 7. **Names of infected areas:** Hanura; 8. **Preventive/control measures:** early harvest; 9. **Laboratory confirmation:** Main Center Mariculture Development Lampung Laboratory; 10. **Publications:** not published.
5	**IMN** 1. **Origin of the disease/pathogen:** Tanggamus (Lampung Province); 2. **Species affected:** *Litopenaeus vannamei* 3. **Clinical signs: -** 4. **Pathogen:** Infectious myonecrosis virus 5. **Mortality rate: -** 6. **Economic loss: -** 7. **Names of infected areas:** Tanggamus (Lampung Province); 8. **Preventive/control measures:** early harvest; 9. **Laboratory confirmation:** Main Center Mariculture Development Lampung; 10. **Publications:** not published.

2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: INDONESIA **Period: July - September 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000		
3. Spring viraemia of carp	0000	0000	0000		
4. Viral haemorrhagic septicaemia	0000	0000	0000		
5. Epizootic ulcerative syndrome	0000	0000	0000		
6. Red seabream iridoviral disease	***	***	***		
7. Koi herpesvirus disease	+( )	+( )	+( )	I,III	1
Non OIE-listed diseases					
8. Grouper iridoviral disease	+( )	+( )	+( )	II	2
9. Viral encephalopathy and retinopathy	***	+( )	***	III	3
10.Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Infection with abalone herpes-like virus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*					
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
6. Acute viral necrosis (in scallops)	0000	0000	0000		
7. Akoya oyster disease	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	+( )	+( )	+( )	III	4
2. White spot disease	+( )	+( )	+( )	III	5
3. Yellowhead disease	0000	0000	0000		
4. Infectious hypodermal and haematopoietic necrosis	+( )	***	+( )	III	6
5. Infectious myonecrosis	+( )	***	+( )	I,III	7
6.White tail disease (MrNV)	0000	0000	0000		
7. Necrotising hepatopancreatitis	0000	0000	0000		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	0000	0000	0000		
9. *Monodon* slow growth syndrome	0000	0000	0000		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	0000	0000	0000		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000		
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	Occurrence limited to certain zones
+	Disease reported or known to be present	***	No information available
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	0000	Never reported
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	**KHV** 1. **Origin of the disease/pathogen:** Hulu Sungai Utara, Banjar (South Kalimantan), Purwakarta, Sukabumi (West Java), Kutai Kartanegara (East Kalimantan); 2. **Species affected:** *Cyprinus carpio,* Koi 3. **Clinical signs:** gill rot, wound on the body surface, redness on body, haemorrahge. 4. **Pathogen:** Koi herpesvirus 5. **Mortality rate:** >70% (Hulu Sungai Utara); 6. **Economic loss:** Rp 5-20 million (Hulu Sungai Utara); Rp 10 million (Koi in West Java Province) 7. **Names of infected areas:** Hulu Sungai Utara, Banjar (South Kalimantan), Kutai Kartanegara (East Kalimantan) 8. **Preventive/control measures:** eradication of infected fish, use of herbal medicines, supplementation with vitamins, transfer to another pond; 9. **Laboratory confirmation:** Freshwater Aquaculture Development Center Mandiangin Laboratory, Main Center Freshwater Aquaculture Development Sukabumi Laboratory. 10. **Publications :** not published.
2	**GIV** 1. **Origin of the disease/pathogen:** Batam, Tanjang Balai Karimun (Riau Island), South Lampung (Lampung), West Lombok (West Nusa Tenggara) 2. **Species affected:** *Trachinotus blochii, Lates calcarifer, Oreochromis niloticus, Chromileptes altivelis* 3. **Clinical signs:** blackened body, irregular swimming, loss of appetite, white eye ring, mass mortality. 4. **Pathogen:** Iridovirus; muti-infection with *Vibrio* sp. and *Dicplectatum* sp in gills. 5. **Mortality rate:** 1,200 pcs/month (Riau Island), >60% (West Nusa Tenggara); 6. **Economic loss:** Rp8 million/8000 pcs (Batam), Rp16.8 million (Tanjung Balai); 7. **Names of infected areas:** Batam, Tanjang Balai Karimun Berundung, South Lampung (Lampung), West Lombok (West Nusa Tenggara) 8. **Preventive/control measures:** Vitamins and immunostimulants; 9. **Laboratory confirmation:** Mariculture Development Center Lombok Laboratory; 10. **Publications:** not published.

3	**VER** 1. **Origin of the disease/pathogen:** Teluk Harun (Lampung Province); 2. **Species affected:** *Epinephelus fuscoguttatus* 3. **Clinical signs:** haemorrhage at the bottom of the mouth, anal fin rot, mutifocal necrosis of liver, swollen spleen and kidney, lesions and ulcers in the mouth; 4. **Pathogen:** VNN; 5. **Mortality rate:** 20% 6. **Economic loss:** - 7. **Names of infected areas:** Teluk Harun (Lampung Province); 8. **Preventive/control measures:** quarantine immersion in freshwater, vitamins; 9. **Laboratory confirmation:** Main Center Mariculture Development Lampung Laboratory; 10. **Publications:** not published.
4	**TS** 1. **Origin of the disease/pathogen:** Tangerang (Banten), Pinrang, Maros (South Sulawesi), South Lampung (Lampung Province); 2. **Species affected:** *Litopenaeus vannamei* 3. **Clinical signs: -** 4. **Pathogen:** TSV; 5. **Mortality rate:** <30% (Banten, South Sulawesi) 6. **Economic loss:** - 7. **Names of infected areas:** Tangerang (Banten), Pinrang, Maros (South Sulawesi), South Lampung (Lampung Province); 8. **Preventive/control measures:** Biosecurity; 9. **Laboratory confirmation:** Center of Fish Disease and Environment Investigation Banten Laboratory, Brackishwater Aquaculture Development Center Takalaar Laboratory,Main Center Mariculture Development Lampung Laboratory; 10. **Publications:** not published.
5	**WSD** 1. **Origin of the disease/pathogen:** Tangerang, Pandeglang (Banten), South Lampung (Lampung Province), Kota Bara (South Kalimantan), West Sumbawa (West Nusa Tenggara) 2. **Species affected:** *Litopenaeus vannamei, Penaeus monodon* 3. **Clinical signs:** soft carapace, white spot on carapace, shrimp becoming weak and swimming on the surface of water, mass mortality; 4. **Pathogen:** WSSV 5. **Mortality rate:** <30% (Banten), >70% (South Kalimantan), 100% (Central Java), >80% (West Nusa Tenggara); 6. **Economic loss:** - 7. **Names of infected areas:** Tangerang, Pandeglang (Banten), South Lampung (Lampung Province), Kota Bara (South Kalimantan), West Sumbawa (West Nusa Tenggara) 8. **Preventive/control measures:** Vitamin C, immunostimulant, early harvest; 9. **Laboratory confirmation:** Center of Fish Disease and Environment Investigation Banten Laboratory, Brackishwater Aquaculture Development Center Takalaar Laboratory,Main Center Mariculture Development Lampung Laboratory, Freshwater Aquaculture Development Center Mandiangin Laboratory, Main Center Brackishwater Development Jepara Laboratory, Mariculture Development Center Lombok Laboratory; 10. **Publications:** not published.

6	**IHHN** 1. **Origin of the disease/pathogen:** Serang (Banten); 2. **Species affected:** *Litopenaeus vannamei* 3. **Clinical signs:** white spot on tail, dwarfing 4. **Pathogen:** IHHNV 5. **Mortality rate:** <30% Serang (Banten and Central Java) 6. **Economic loss: -** 7. **Names of infected areas:** Serang (Banten), Jepara, Pati (Central Java); 8. **Preventive/control measures:** biosecurity, disinfection of egg and larva; 9. **Laboratory confirmation:** Center of Fish Diseases and Environment Investigation Banten Laboratory, Main Center Brackishwater Development Jepara Laboratory; 10. **Publications:** not published.
7	**IMN** 1. **Origin of the disease/pathogen:** Tangerang (Banten), South Lampung (Lampung), Probolinggo (East Java); 2. **Species affected:** *Litopenaeus vannamei* 3. **Clinical signs:** shrimp in acute phase of IMN present focal to extensive white necrotic areas in striated (skeletal) muscles, especially in the distal abdominal segments and tail fan, becoming necrotic and reddened 4. **Pathogen:** IMNV 5. **Mortality rate:** <30% (Banten) 6. **Economic loss: -** 7. **Names of infected areas:** Berundung and Padang Cermin (Lampung Province); 8. **Preventive/control measures:** early harvest, disinfection, good management; 9. **Laboratory confirmation:** Center of Fish Diseases and Environment Investigation Banten Laboratory, Main Center Mariculture Development Lampung Labortory, Main CenterBrackishwater Development Jepara Laboratory, Brackiswater Aquaculture Development Center Situbondo Laboratory; 10. **Publications:** not published.

2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: IRAN **Period: July - September 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	-	-	-		
3. Spring viraemia of carp	-	-	-		
4. Viral haemorrhagic septicaemia	-	-	-		
5. Epizootic ulcerative syndrome	0000	0000	0000		
6. Red seabream iridoviral disease	***	***	***		
7. Koi herpesvirus disease	0000	0000	0000		
Non OIE-listed diseases					
8. Grouper iridoviral disease	***	***	***		
9. Viral encephalopathy and retinopathy	0000	0000	0000		
10.Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Infection with abalone herpes-like virus	***	***	***		
4. Infection with *Xenohaliotis californiensis*	***	***	***		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	***	***	***		
6. Acute viral necrosis (in scallops)	***	***	***		
7. Akoya oyster disease	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	-	-	+	III	1
3. Yellowhead disease	0000	0000	0000		
4. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
5. Infectious myonecrosis	***	***	***		
6.White tail disease (MrNV)	***	***	***		
7. Necrotising hepatopancreatitis	***	***	***		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
9. *Monodon* slow growth syndrome	***	***	***		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	***	***	***		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	***	***	***		
2. Infection with *Batrachochytrium dendrobatidis*	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	Occurrence limited to certain zones
+	Disease reported or known to be present	***	No information available
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	0000	Never reported
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	**White Spot Disease** 1. **Reported in 2 shrimp farms in Goatr region (Chabahar)** in June 2013, origin unknown; 2. **Species affected** – *L. vannamei* (45 d); 3. **Clinical signs** – sudden decrease in feeding, swimming near the edge of pond, sudden mortality; 4. **Pathogen** – White spot syndrome virus; 5. **Mortality rate** – >80% (morbidity almost 100%), 6. **Economic loss** – 7. **Geographic extent** – Choebdeh in Khozestan Province; 8. **Control measures** – both farms were disinfected with 40 ppm Calcium Chloride, all infected shrimps were eradicated; 9. **Laboratory confirmation** – nested-PCR (National Shrimp Laboratory, Boushehr); 10. **Publications** – None.

2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: JAPAN **Period: July - September 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000	I	
2. Infectious haematopoietic necrosis	+	+	+	III	
3. Spring viraemia of carp	0000	0000	0000	I	
4. Viral haemorrhagic septicaemia	-	-	-	I	
5. Epizootic ulcerative syndrome	-	-	+	III	
6. Red seabream iridoviral disease	+	+	+	III	
7. Koi herpesvirus disease	+	+	+	III	
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000	I	
9. Viral encephalopathy and retinopathy	-	+	+	III	
10.Enteric septicaemia of catfish	-	-	-	I	
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000	I	
2. Infection with *Perkinsus olseni*	-	-	-	I	
3. Infection with abalone herpes-like virus	0000	0000	0000	I	
4. Infection with *Xenohaliotis californiensis*	+?( )	+?( )	-	III	1
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	-	-	-	I	
6. Acute viral necrosis (in scallops)	0000	0000	0000	I	
7. Akoya oyster disease	-	-	-	I	
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000	I	
2. White spot disease	+	+	+	III	
3. Yellowhead disease	0000	0000	0000	I	
4. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000	I	
5. Infectious myonecrosis	0000	0000	0000	I	
6.White tail disease (MrNV)	0000	0000	0000	I	
7. Necrotising hepatopancreatitis	0000	0000	0000	I	
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	0000	0000	0000	I	
9. *Monodon* slow growth syndrome	0000	0000	0000	I	
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	0000	0000	0000	I	
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	-	-	-	I	
2. Infection with *Batrachochytrium dendrobatidis*	-	-	-	I	
ANY OTHER DISEASES OF IMPORTANCE					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	Occurrence limited to certain zones
+	Disease reported or known to be present	***	No information available
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	0000	Never reported
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	DNA of *Xenohaliotis californiensis* was detected by PCR from *Haliotis diversicolor aquatilis* (Kanagawa Prefecture) and *H. diversicolor diversicolor* (Kagoshima Prefecture) without any clinical signs. Diagnosis was made by the National Research Institute of Aquaculture, Fishery Research Agency. Stamping out and disinfection of infected premises were implemented in response to the outbreak.
2	
3	

2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: KOREA, REPUBLIC OF Period: July - September 2013

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	-	-	-	III	
3. Spring viraemia of carp	0000	0000	0000		
4. Viral haemorrhagic septicaemia	-	-	-	III	
5. Epizootic ulcerative syndrome	0000	0000	0000		
6. Red seabream iridoviral disease	-	+	+	III	1
7. Koi herpesvirus disease	-	-	-	III	
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000		
9. Viral encephalopathy and retinopathy	-	-	-	III	
10.Enteric septicaemia of catfish	0000	0000	0000		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Infection with abalone herpes-like virus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	-	-	-	III	
6. Acute viral necrosis (in scallops)	0000	0000	0000		
7. Akoya oyster disease	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	+	-	-	III	2
3. Yellowhead disease	0000	0000	0000		
4. Infectious hypodermal and haematopoietic necrosis	-	-	-	III	
5. Infectious myonecrosis	0000	0000	0000		
6.White tail disease (MrNV)	0000	0000	0000		
7. Necrotising hepatopancreatitis	0000	0000	0000		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	0000	0000	0000		
9. *Monodon* slow growth syndrome	0000	0000	0000		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	0000	0000	0000		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000		
2. Infection with *Batrachochytrium dendrobatidis*	?	?	?		
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	Occurrence limited to certain zones
+	Disease reported or known to be present	***	No information available
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	0000	Never reported
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	Red sea bream iridovirus (RSIV) was detected in cultured mullet (*Chelon haematocheilus*) and starry flounder (*Platichthys stellatus*) in Sachen of Gyeongsangnam-do and Gangneung Gangwon-do, respectively. No clinical signs and mortality were shown. The confirmative diagnosis was performed by National Fisheries Research and Development Institute, Aqua-life Disease Control Division. The standstill of RSIV-detected fish was declared for control.
2	White spot disease virus was detected from whiteleg shrimp (*Litopenaeus vanname*) in 2 farms in Taean-gun, Chungcheongnam-do. No clinical signs and mortality were observed. The confirmative diagnosis was performed by the National Fisheries Research and Development Institute, Aqua-life Disease Control Division. The standstill of WSDV-detected whiteleg shrimp was declared for control.
3	

2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: LAO PDR **Period: July - September 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	***	***	***		
2. Infectious haematopoietic necrosis	***	***	***		
3. Spring viraemia of carp	***	***	***		
4. Viral haemorrhagic septicaemia	***	***	***		
5. Epizootic ulcerative syndrome	***	***	***		
6. Red seabream iridoviral disease	***	***	***		
7. Koi herpesvirus disease	***	***	***		
Non OIE-listed diseases					
8. Grouper iridoviral disease	***	***	***		
9. Viral encephalopathy and retinopathy	***	***	***		
10.Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Infection with abalone herpes-like virus	***	***	***		
Non OIE-listed diseases					
4. Infection with *Marteilioides chungmuensis*	***	***	***		
5. Acute viral necrosis (in scallops)	***	***	***		
6. Akoya oyster disease	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	***	***	***		
2. White spot disease	***	***	***		
3. Yellowhead disease	***	***	***		
4. Infectious hypodermal and haematopoietic necrosis	***	***	***		
5. Infectious myonecrosis	***	***	***		
6.White tail disease (MrNV)	***	***	***		
7. Necrotising hepatopancreatitis	***	***	***		
Non OIE-listed diseases					
8. *Monodon* slow growth syndrome	***	***	***		
9. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	***	***	***		
2. Infection with *Batrachochytrium dendrobatidis*	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					
1.					
2.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*; *Xenohaliotis californiensis*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	Occurrence limited to certain zones
+	Disease reported or known to be present	***	No information available
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	0000	Never reported
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	
2	
3	

2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: MALAYSIA **Period: July - September 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000	I,II,III	
3. Spring viraemia of carp	0000	0000	0000	I,II,III	1
4. Viral haemorrhagic septicaemia	0000	0000	0000	I,II,III	
5. Epizootic ulcerative syndrome	(1986)	(1986)	(1986)	I.II	
6. Red seabream iridoviral disease	-	-	-	I,II,III	
7. Koi herpesvirus disease	-	-	-	I,II,III	2
Non OIE-listed diseases					
8. Grouper iridoviral disease	-	-	-	III	3
9. Viral encephalopathy and retinopathy	-	-	-	III	4
10.Enteric septicaemia of catfish	0000	0000	0000		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000	III	
3. Infection with abalone herpes-like virus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*					
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
6. Acute viral necrosis (in scallops)	0000	0000	0000		
7. Akoya oyster disease	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	-	-	-	I,III	5
2. White spot disease	-	+	+	I,III	6
3. Yellowhead disease	-	-	-	I,III	7
4. Infectious hypodermal and haematopoietic necrosis	+	+	-	I,III	8
5. Infectious myonecrosis	-	-	-	III	9
6.White tail disease (MrNV)	-	-	-	III	10
7. Necrotising hepatopancreatitis	-	-	-	III	11
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	0000	0000	0000		
9. *Monodon* slow growth syndrome	-	-	-		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	+	-	-	I,II,III	13
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	-	-	-		
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					
1. Hepatopancreatic parvo virus disease	-	+	+	III	12

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

+	Disease reported or known to be present	+( )	Occurrence limited to certain zones
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	***	No information available
		0000	Never reported
?	Suspected by reporting officer but presence not confirmed	-	Not reported (but disease is known to occur)
		(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	**Spring viraemia of carp** 1. No positive cases detected (PCR) during DoF active surveillance programme
2	**Koi herpesvirus disease** 1. One positive case was detected (PCR) during DoF active surveillance programme
3	**Grouper Iridoviral disease (GIV)** 1. Imported grouper fish fry (sample from Selangor) and barramundi fish fry were positive for GIV tested in Fisheries Biosecurity Penang for disease surveillance (herewith referred to Megalocytivirus).
4	**Viral encephalopathy and retinopathy** 1. Imported grouper fish fry (sample from Selangor) were positive for VNN tested in Fisheries Biosecurity KLIA Selangor for disease surveillance.
5	**Taura syndrome virus (TSV)** (*Penaeus monodon, Litopenaeus vannamei*) 1. TSV was not detected in all the 26 samples of postlarvae sent to Private laboratory for routine and monitoring purposes. 2. No positive on reported cases detected by PCR although active surveillance was conducted by DoF in West and East Malaysia.

6	**White Spot Syndrome Virus (WSSV)** Three cases of WSSV in *P. vannamei* were detected out of 147 samples sent to Private Laboratory for routine and monitoring purposes. It involved juvenile and postlarvae of *P. monodon* and *P. vannamei*. No positive cases detected by PCR although active surveillance was conducted by DOF in West and East Malaysia.
7	**Yellow head disease (YHV)** (*P. monodon, Litopenaeus vannamei*) 1. YHV was not detected in all the 18 samples sent to private laboratory for routine and monitoring purposes. 2. No positive cases detected (PCR) although active surveillance was conducted by DoF in East Malaysia
8	**Infectious hypodermal and haematopoietic necrosis virus (IHHNV)** (*Macrobrachium rosenbergii*, *P. monodon, Litopenaeus vannamei*) 1. No IHHNV was detected 25 *L. vannamei* postlarval samples sent to private laboratory for routine and monitoring purposes. 2. One (1) positive case detected by PCR through active surveillance conducted by DoF in West and East Malaysia.
9	**Infectious Myonecrosis (IMNV)** 1. IMNV was not detected in all 41 samples of *Penaeus monodon* and *Litopenaeus vannamei* postlarvae and juveniles sent to private laboratory for routine and monitoring purposes. 2. No positive on reported cases detected by PCR, although active surveillance was conducted by DoF in West and East Malaysia.
10	***Macrobrachium rosenbergii*** **Nodavirus (MrNV)** 1. No samples were tested for MrNV.
11	**Necrotising hepatopancreatitis (NHPB)** 1. No samples were tested for NHPB.
12	**Hepatopancreatic parvo virus disease (HPV)** (*P. monodon, Litopenaeus vannamei*) 1. 13 out of 46 postlarval samples (*P. monodon*) were tested positive for HPV by private laboratory for routine and monitoring purposes.

13	**Acute hepatopancreatic necrosis syndrome (AHPNS)** 1. Early AHPNS on 16 samples from outbreak cases in 6 ponds in Sarawak; tested positive by National Fish Disease Research Institute (NaFisH), Penang in July. No positive cases in 11 samples from 2 pond outbreak cases in Setiu, Terengganu in July. No positive cases in 20 samples from 4 pond outbreak cases 11 samples from 2 pond outbreak cases in Setiu, Terengganu.

2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: MYANMAR **Period: July - September 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	***	***	***		
2. Infectious haematopoietic necrosis	***	***	***		
3. Spring viraemia of carp	***	***	***		
4. Viral haemorrhagic septicaemia	***	***	***		
5. Epizootic ulcerative syndrome	***	***	***		
6. Red seabream iridoviral disease	***	***	***		
7. Koi herpesvirus disease					
Non OIE-listed diseases					
8. Grouper iridoviral disease	***	***	***		
9. Viral encephalopathy and retinopathy	***	***	***		
10.Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*					
2. Infection with *Perkinsus olseni*					
3. Infection with abalone herpes-like virus					
4. Infection with *Xenohaliotis californiensis*					
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*					
6. Acute viral necrosis (in scallops)					
7. Akoya oyster disease					
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	-	-	-	III	1
2. White spot disease	-	-	-	III	
3. Yellowhead disease	-	-	-	III	
4. Infectious hypodermal and haematopoietic necrosis	-	-	-	III	
5. Infectious myonecrosis	***	***	***		
6.White tail disease (MrNV)	***	***	***		
7. Necrotising hepatopancreatitis	***	***	***		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
9. *Monodon* slow growth syndrome	***	***	***		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)					
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus					
2. Infection with *Batrachochytrium dendrobatidis*					
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	Occurrence limited to certain zones
+	Disease reported or known to be present	***	No information available
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	0000	Never reported
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	During this period, we have received 7 samples of shrimps (2 frozen and 5 live shrimps for export) for testing for TSV, WSSV and IHHNV. All samples were found negative for the viruses.
2	
3	

2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: NEPAL **Period: July - September 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000		
3. Spring viraemia of carp	0000	0000	0000		
4. Viral haemorrhagic septicaemia	0000	0000	0000		
5. Epizootic ulcerative syndrome	-	-	-		1
6. Red seabream iridoviral disease	0000	0000	0000		
7. Koi herpesvirus disease	0000	0000	0000		
Non OIE-listed diseases					
8.Grouper iridoviral disease					
9.Viral encephalopathy and retinopathy					
10.Enteric septicaemia of catfish					
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Infection with abalone herpes-like virus	***	***	***		
4. Infection with *Xenohaliotis californiensis*					
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	***	***	***		
6. Acute viral necrosis (in scallops)	***	***	***		
7. Akoya oyster disease	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	***	***	***		
2. White spot disease	***	***	***		
3. Yellowhead disease	***	***	***		
4. Infectious hypodermal and haematopoietic necrosis	***	***	***		
5. Infectious myonecrosis	***	***	***		
6.White tail disease (MrNV)	***	***	***		
7. Necrotising hepatopancreatitis	***	***	***		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
9. *Monodon* slow growth syndrome	***	***	***		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)					
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	***	***	***		
2. Infection with *Batrachochytrium dendrobatidis*	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					
1.					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	Occurrence limited to certain zones
+	Disease reported or known to be present	***	No information available
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	0000	Never reported
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	**Epizootic ulcerative syndrome** **1. Seen in Chitawan and Rupandehi districts** in September; 2. **Species affected** – mostly Chinese carps (200-1000 g); **3. Clinical signs** – scale removal, haemorrhage on finbase and operculum edge; **4. Pathogen** –; **5. Mortality rate** –, 6. **Economic loss** – 1 ton in Chitawan and 1.5 tons in Rupandehi **7. Geographic extent** – 200-700 g size of Indian carps in 25 ha. Ponds; 75-200 g catfishes in 100 small kitchen ponds; **8. Control measures** – Potassium permanganate @ 500kg/ha for 7-0 days, and 500 kg/ha lime; **9. Laboratory confirmation** –; **10. Publications** – None.
2	
3	

2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: PHILIPPINES Period: July - September 2013

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000		
3. Spring viraemia of carp	0000	0000	0000		
4. Viral haemorrhagic septicaemia	0000	0000	0000		
5. Epizootic ulcerative syndrome	- (2002)	- (2002)	- (2002)	I	1
6. Red seabream iridoviral disease	***	***	***		
7. Koi herpesvirus disease	0000	0000	0000	III	
Non OIE-listed diseases					
8. Grouper iridoviral disease	- (2008)	- (2008)	- (2008)	III	2
9. Viral encephalopathy and retinopathy	+	+	+	III	3
10.Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Infection with abalone herpes-like virus	***	***	***		
4. Infection with *Xenohaliotis californiensis*	***	***	***		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
6. Acute viral necrosis (in scallops)	***	***	***		
7. Akoya oyster disease	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000	III	4
2. White spot disease	+	+	+	III	5
3. Yellowhead disease	- (1999)	- (1999)	- (1999)	III	6
4. Infectious hypodermal and haematopoietic necrosis	+	+	+	III	7
5. Infectious myonecrosis	0000	0000	0000	III	8
6.White tail disease (MrNV)	0000	0000	0000	III	9
7. Necrotising hepatopancreatitis	0000	0000	0000	III	10
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
9. *Monodon* slow growth syndrome	***	***	***		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	0000	0000	0000		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	***	***	***		
2. Infection with *Batrachochytrium dendrobatidis*	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					
1. Monodon baculovirus (MBV)	-	-	-	III	

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	Occurrence limited to certain zones
+	Disease reported or known to be present	***	No information available
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	0000	Never reported
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	Sixty five (65) pieces of eels (*Anguilla spp.)* were negative for Epizootic Ulcerative Syndrome by gross morphological examination. Samples were from Laguna and Cotabato City. Examination was conducted by the Bureau of Fisheries and Aquatic Resources (BFAR) Central Office Fish Health Laboratory.
2	Four (4) samples - (3 grouper, 1 snapper) were analyzed using Polymerase Chain Reaction (PCR) test. All samples showed negative results for Iridoviral Disease. The samples were collected from Sarangani Province, Sorsogon and Nueva Ecija. Examination was conducted by BFAR Central Office Fish Health Laboratory and Southeast Asian Fisheries and Development Center/ Aquaculture Department (SEAFDEC/AQD) Laboratory.
3	Twenty (20) samples – (6 grouper, 6 pompano, 5 snapper, 2 siganid and 1 seabass) were analyzed using PCR test. Twelve (12) samples- (6 Grouper, 4 Pompano and 2 Saganid) showed positive result for Viral Encephalopathy and Retinopathy**.** The positive samples were collected from Sorsogon, Guimaras and Iloilo. Examination was conducted by the BFAR Central Office and SEAFDEC/AQD Laboratories.
4	One hundred sixty five (165) samples - (137 *Penaeus vannamei*,27 *Penaeus monodon* and 1 *M.rosenbergii)* of different stages (brood stock, adult, fry, juvenile) were analyzed using PCR test. All samples showed negative results for Taura Syndrome. The samples were collected from Bohol, Sorsogon, Zamboanga City, Sarangani Province, Surigao del Sur, Cotabato City, General Santos City, Quezon, Batangas, Samar,Ormoc City, Tacloban, Iloilo, Rizal, Cebu, Misamis Occidental, Lanao del Norte, Davao Oriental, Aurora, Bataan and Dapitan. Other samples were imported from Hawaii and Florida, USA. Examinations were conducted by BFAR Central Office, BFAR Region III, BFRA Region VI, BFAR Region VII and BFAR Region VIII and SEAFDEC/AQD Laboratories.

5	Four hundred ninety-five (495) samples of *P.vannamei, P.monodon, S.serrata,* artemia and crabs of different stages (fry, juvenile, adult and brood stock) were tested using PCR. Twenty-one - (10 *P.vannamei,8 P.monodon* , 3 crabs) were positive for White Spot Syndrome Virus. The positive samples were from Bohol, Cotabato City, Sorsogon, Samar, Sarangani, Camarines Sur, General Santos and Cebu. Examinations were conducted by BFAR Central Office, BFAR Region III, BFAR Region VI, BFAR Region VII, BFAR Region VIII, Negros Prawn Producers Cooperative and SEAFDEC/AQD Laboratories.
6	One hundred forty (140) samples - (112 *P.vannamei*, 27 *P.monodon* and 1 *M.rosenbergii)* of different stages (fry, juvenile, grow out, adult and brood stock) were tested using PCR. All samples showed negative results for Yellowhead Disease. The samples were collected from Sorsogon, Zamboanga City, Sarangani, Surigao del Sur, Cotabato City, General Santos City, Quezon Province, Zambales, Batangas, Samar, Ormoc City, Tacloban City, Iloilo, Cebu, Rizal, Bohol,Misamis Occidental, Lanao del Norte, Davao Oriental, Dapitan City and Aurora. Other samples were imported from Hawaii and Florida, USA. Examinations were conducted by BFAR Central Office, BFAR Region III, BFAR Region VI, BFAR Region VII, BFAR Region VIII and SEAFDEC/AQD Laboratories.
7	One hundred ninety-seven (197) samples - (52 *P.monodon,* 143 *P.vannamei, 1 M.rosenbergii* and 1 artemia *)* of different stages (fry, juvenile, adult, brood stock) were analyzed using the PCR Test. Eleven (7 *P.vannamei,* 4 *P.monodon,)* showed positive result for Infectious Hypodermal and Haematopoietic Necrosis Virus. The positive samples were collected from Samar, Iloilo and Batangas. Examinations were conducted by BFAR Central Office, BFAR Region III, BFAR Region VI, BFAR Region VII, BFAR Region VIII and SEAFDEC/AQD Laboratories.
8	One hundred sixty-five (165) samples - (137 *P.vannamei,* 27 *P.monodon,* and 1 *M.rosenbergii)* of different stages (fry, juvenile, adult and bloodstock) were tested using PCR. All samples showed negative results for Infectious Myonecrosis. The samples were collected from Sorsogon, Zamboanga City, Sarangani Province, Surigao del Sur, Cotabato City, General Santos City, Quezon Province, Zambales, Batangas, Samar, Ormoc City, Tacloban City, Iloilo, Cebu, Rizal, Bohol and Bataan. Other samples were imported from Hawaii, USA. Examinations were conducted by BFAR Central Office, BFAR Region III, BFAR Region VI, BFAR Region VII, BFAR Region VIII and SEAFDEC/AQD Laboratories.
9	One (1) sample of *M.rosenbergii* was tested using PCR. The sample showed negative results for White Tail Disease. The sample was collected from Rizal. Examination was conducted by BFAR Central Office Fish Health Laboratory.
10	One hundred fourteen (114) samples - (86 *P.vannamei,*27 *P.monodon* and 1 *M.rosenbergii)* of various stages (fry, juvenile, adult and brood stock) were tested using PCR. All samples showed negative results for Necrotising Hepatopancreatitis. The samples were collected from Sorsogon, Zamboanga City, Sarangani Province, Surigao del Sur, Cotabato City, General Santos City, Quezon Province, Zambales, Batangas, Samar, Ormoc City, Iloilo, Rizal, Cebu, Bohol, Davao del Sur and Dapitan City. Other samples were imported from Hawaii and Florida, USA. Examination was conducted by BFAR Central Office, BFAR Region III, BFAR Region VI, BFAR Region VII and BFAR Region VIII Laboratories.

2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: SINGAPORE **Period: July - September 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000		
3. Spring viraemia of carp	0000	0000	0000		
4. Viral haemorrhagic septicaemia	0000	0000	0000		
5. Epizootic ulcerative syndrome	0000	0000	0000		
6. Red seabream iridoviral disease	(2013)	(2013)	(2013)		
7. Koi herpesvirus disease	(2012)	(2012)	(2012)	III	1
Non OIE-listed diseases					
8. Grouper iridoviral disease	(2013)	+	(2013)	III	2
9. Viral encephalopathy and retinopathy	+	+	+	III	3
10.Enteric septicaemia of catfish	0000	0000	0000		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Infection with abalone herpes-like virus	***	***	***		
4. Infection with *Xenohaliotis californiensis*	***	***	***		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	***	***	***		
6. Acute viral necrosis (in scallops)	***	***	***		
7. Akoya oyster disease	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	(2013)	(2013)	(2013)	III	4
3. Yellowhead disease	0000	0000	0000		
4. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
5. Infectious myonecrosis	0000	0000	0000		
6.White tail disease (MrNV)	***	***	***		
7. Necrotising hepatopancreatitis	0000	0000	0000		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
9. *Monodon* slow growth syndrome	***	***	***		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	0000	0000	0000		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	***	***	***		
2. Infection with *Batrachochytrium dendrobatidis*	+?	+?	+?	III	5

ANY OTHER DISEASES OF IMPORTANCE					
1. Infectious spleen and kidney necrosis virus (ISKNV) (marine and ornamental fish)	+	+	+	III	6
2. *Aeromonas salmonicida* (in goldfish)	0000	0000	0000	III	7

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

+	Disease reported or known to be present	+( )	Occurrence limited to certain zones
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	***	No information available
		0000	Never reported
?	Suspected by reporting officer but presence not confirmed	-	Not reported (but disease is known to occur)
		(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	**Koi herpesvirus (KHV)** was not detected in one batche of koi submitted on 26th September with slight reddening of the body and lethargy by real-time PCR. Anti-KHV antibodies were not detected in serum of these koi by serology. Monogenean parasites were detected in on skin and gills and virus isolation for SCVC is in progress. 31 batches of imported and locally farmed ornamental koi from surveillance programs and voluntary submission tested negative by real-time PCR.
2	**Singapore grouper iridovirus (SGIV)** was detected by PCR in 1 out of 2 batches of diseased imported pearl grouper (*E. lanceolatus* x *E. fuscoguttatus*) fingerlings in August. Infection with VNNV was confirmed by histopathological findings and qPCR in these fish (see comment 3). SGIV was not detected in 1 batch of local pearl grouper.
3	**Viral nervous necrosis virus (VNNV)** was detected in a batch of locally bred pearl grouper in July, which were also infected with ISKNV (see comment 6). In August, VNNV was detected in 5 batches of local and imported pearl grouper from land-based hatcheries and floating net cage farms, and one batch of hybrid pompano from a land-based fish hatchery. VNNV was also detected in 1 out of 2 batches of yellowtail scad submitted from a private aquaria in September. All detections of VNNV were confirmed by histopathological examination and qPCR.

4	**White spot syndrome virus (WSSV)** was not detected in .24 batches of ornamental crustaceans submitted for targeted surveillance programs, 1 voluntary submission by an exporter, and in120 *Litopenaeus vannamei* submitted from a local broodstock farm this quarter.
5	112 frog swab samples were submitted from June to September for validation of the ***Batrachochytrium dendrobatidis*** **(Bd)** real-time PCR protocol. Reactors and negative samples will be submitted to a diagnostic laboratory for confirmation. Surveillance in imported ornamental frogs, and imported and locally farmed frogs will start at the end of November.
6	**Infectious spleen and kidney necrosis virus (ISKNV)** was detected in a batch of diseased pearl grouper in July which were also infected with VNNV (comment 3), and 1 batch of diseased gourami in August. *Edwardsiella* sp. and *Plesiomonas shigelloides* was isolated from the gourami samples. One batch of imported pomapano tested positive for ISKNV. All detections of ISKNV were confirmed by histopathologial examination and PCR.
5	***Aeromonas salmonicida*** was not detected this quarter in all 15 batches of goldfish submitted under a targeted surveillance program for goldfish exported to Australia.

2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: SRI LANKA **Period: July - September 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000	III	1
2. Infectious haematopoietic necrosis	***	***	***		
3. Spring viraemia of carp	0000	0000	0000	III	2
4. Viral haemorrhagic septicaemia	0000	0000	0000	III	3
5. Epizootic ulcerative syndrome	***	***	***		
6. Red seabream iridoviral disease	***	***	***		
7. Koi herpesvirus disease	0000	0000	0000	III	4
Non OIE-listed diseases					
8.Grouper iridoviral disease	***	***	***		
9.Viral encephalopathy and retinopathy	***	***	***		
10.Enteric septicaemia of catfish	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Infection with abalone herpes-like virus	***	***	***		
4. Infection with *Xenohaliotis californiensis*					
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	***	***	***		
6. Acute viral necrosis (in scallops)	***	***	***		
7. Akoya oyster disease	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	***	***	***		
2. White spot disease	+( )	+( )	+( )	III	5
3. Yellowhead disease	+( )	?( )	?( )	III	6
4. Infectious hypodermal and haematopoietic necrosis	?( )	?( )	?( )	III	7
5. Infectious myonecrosis	***	***	***		
6.White tail disease (MrNV)	***	***	***		
7. Necrotising hepatopancreatitis	***	***	***		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	***	***	***		
9. *Monodon* slow growth syndrome	***	***	***		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	***	***	***		
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	***	***	***		
2. Infection with *Batrachochytrium dendrobatidis*	***	***	***		

ANY OTHER DISEASES OF IMPORTANCE					
1. Laem Singh virus (LSV)	?( )	?( )	?( )	III	8
2. Monodon Baculovirus (MBV)	?( )	?( )	+( )	III	9

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

+	Disease reported or known to be present	+( )	Occurrence limited to certain zones
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	***	No information available
		0000	Never reported
?	Suspected by reporting officer but presence not confirmed	-	Not reported (but disease is known to occur)
		(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	At the Central Veterinary Investigation Centre (CVIC), PCR has been developed for EHN. Samples were not tested for this reporting period
2	68 samples (22 carps, 8 koi and 38 guppies) were tested by PCR for SVC at CVIC. All the samples gave negative result. The samples were collected from aquarium of western and north western provinces, and these were from export samples.
3	PCR has been developed for VHS at CVIC, and no samples were tested during this reporting period.
4	A total of 23 carp samples were tested for koi herpesvirus at the Centre for Aquatic Disease Diagnosis and Research (CADDAR). These samples were received from western province and other samples were from farmers at north central province, and all the samples were negative.
5	865 samples of *P. monodon* were tested by PCR for WSSV, and 148 samples were found positive. The testing has been carried out in the Laboratories of National Aquatic Research Agency (NARA) and National Aquatic Development Authority (NAQDA).
6	10 samples of *P. monodon* were tested by PCR for YHV in the laboratory of NARA during this reporting period. One sample gave positive result.

7	13 samples of *P. monodon* were tested by PCR for IHHNV during this reporting period, and no sample was found positive. Test was carried out in the laboratory of NARA.
8	11 samples of *P. monodon* were tested by PCR for LSV during this reporting period. All samples gave negative result. Test was carried out in the laboratory of NARA.
9	10 of 65 samples of *P. monodon* gave positive result for MBV in the month of September. PCR method was used for testing at the laboratories of NARA and NAQDA.

2. New aquatic animal health regulations introduced within past six months (with effective date):

Country: VIETNAM **Period: April - June 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	April	May	June		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000		
3. Spring viraemia of carp	0000	0000	0000		
4. Viral haemorrhagic septicaemia	0000	0000	0000		
5. Epizootic ulcerative syndrome	-	-	-		
6. Red seabream iridoviral disease	0000	0000	0000		
7. Koi herpesvirus disease	0000	0000	0000		
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000		
9. Viral encephalopathy and retinopathy	0000	0000	0000		
10.Enteric septicaemia of catfish	-	-	-		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	+( )	-	-	I,III	1
3. Infection with abalone herpes-like virus	0000	0000	0000		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
6. Acute viral necrosis (in scallops)	0000	0000	0000		
7. Akoya oyster disease	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	+	+	+	I,II,III	2
3. Yellowhead disease	-	-	-		
4. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
5. Infectious myonecrosis	0000	0000	0000		
6.White tail disease (MrNV)	-	-	-		
7. Necrotising hepatopancreatitis	0000	0000	0000		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	-	-	-		
9. *Monodon* slow growth syndrome	-	-	-		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	+	+	+	I,III	3
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000		
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	Occurrence limited to certain zones
+	Disease reported or known to be present	***	No information available
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	0000	Never reported
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	**Infection with *Perkinsus sp.*** One disease outbreak in Meretrix lyrata was reported in Nghi Thiet commune, Nghi Loc district in Nghe An Province in April. The affected area was 2.5 ha. Control measure applied was disinfetion of affected area.
2	**White Spot Disease (WSD)** **Pathogen**: White spot syndrome virus (WSSV) **Species affected:** *Penaeus monodon* and *Litopenaeus vannamei* (15-50 DOC) **Name of affected area:** reported in 20 provinces including Thai Binh, Thanh Hoa, Nghe An, Ha Tinh, Quang Tri, Quang Binh, Quang Nam, Quang Ngai, TT Huc, Binh Dinh, Phu Yen, Ho Chi Minh City, Long An, Tien Gang, Kien Giang, Ben Tre, Soc Trang, Tra Vinh, Bac Lieu and Ca Mau. **Mortality rate:** medium to high, 100% in some cases within 10 d. **Clinical signs:** lethargic or moribund shrimps accumulated at pond surface and edges, slow to erratic swimming behavior, overall body color often reddish, minute to large (0.5-2.0 mm diameter) white inclusions embedded in the cuticle, especially in the removed carapace held to light after scraping off attached tissue (not always seen) **Control measures:** early harvest, strict isolation of infected ponds with movement and transport controls, disinfection of infected ponds using Calcium hypochlorite (chlorine).

5	**Acute hepatopancreatic necrosis syndrome (AHHPNS)** **Pathogen:** *Vibrio parahaemolyticus* with Phage A3 **Name of affected area:** The disease is still affecting 12 provinces including Nam Dinh (North), Nghe An, Quang Binh, Quang Tri, Phy Yen, Ninh Thuan (Central Coast), and Ba Ria-Vung Tau, Ho Chi Minh City, Ben Tre, Tra Vinh, Bac Lieu and Ca Mau (Mekong River Delta). **Mortality rate:** Mortality recorded at 10-45 days post stocking in both *P. monodon* and *L. vannamei* in intensive and semi-intensive farming systems was as high as 95%. **Clinical signs:** lethargy, soft and darkened shells, and mottling of the carapace; pathology appears to be limited to the hepatopancreas. **Control measures:** strict isolation of infected ponds; movement/transportation controls; use of calcium hypochlorite (Chlorine) to disinfect ponds.

2. New aquatic animal health regulations introduced within past six months (with effective date): None

Country: VIETNAM **Period: July - September 2013**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	July	August	September		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000		
2. Infectious haematopoietic necrosis	0000	0000	0000		
3. Spring viraemia of carp	0000	0000	0000		
4. Viral haemorrhagic septicaemia	0000	0000	0000		
5. Epizootic ulcerative syndrome	-	-	-		
6. Red seabream iridoviral disease	0000	0000	0000		
7. Koi herpesvirus disease	0000	0000	0000		
Non OIE-listed diseases					
8. Grouper iridoviral disease	0000	0000	0000		
9. Viral encephalopathy and retinopathy	0000	0000	0000		
10.Enteric septicaemia of catfish	-	-	-		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Infection with abalone herpes-like virus	-	-	-		
4. Infection with *Xenohaliotis californiensis*	0000	0000	0000		
Non OIE-listed diseases					
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
6. Acute viral necrosis (in scallops)	0000	0000	0000		
7. Akoya oyster disease	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	+	+	+	I,II,III	1
3. Yellowhead disease	-	-	-		
4. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
5. Infectious myonecrosis	0000	0000	0000		
6.White tail disease (MrNV)	-	-	-		
7. Necrotising hepatopancreatitis	0000	0000	0000		
Non OIE-listed diseases					
8. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)	-	-	-		
9. *Monodon* slow growth syndrome	-	-	-		
10. Acute hepatopancreatic necrosis syndrome (AHPNS)	+	+	+	I,II	2
AMPHIBIAN DISEASES					
OIE-listed diseases					
1. Infection with Ranavirus	0000	0000	0000		
2. Infection with *Batrachochytrium dendrobatidis*	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					

DISEASES PRESUMED EXOTIC TO THE REGION[b]
LISTED BY THE OIE
Finfish: Infectious salmon anaemia; Infection with *Gyrodactylus salaris*.
Molluscs: Infection with *Bonamia ostreae*; *Marteilia refringens*; *Perkinsus marinus*.
Crustaceans: Crayfish plague (*Aphanomyces astaci*).
NOT LISTED BY THE OIE
Finfish: Channel catfish virus disease

a/ Please use the following symbols:

		+( )	Occurrence limited to certain zones
+	Disease reported or known to be present	***	No information available
+?	Serological evidence and/or isolation of causative agent but no clinical diseases	0000	Never reported
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not confirmed	(year)	Year of last occurrence

b/ If there is suspicion or confirmation of any of these diseases, they must be reported immediately, because the region is considered free of these diseases

1. Epidemiological comments:

(Comments should include: 1) Origin of the disease or pathogen (history of the disease); 2) Species affected; 3) Disease characteristics (unusual clinical signs or lesions); 4) Pathogen (isolated/sero-typed); 5) Mortality rate (high/low; decreasing/increasing); 6) Death toll (economic loss, etc); 7) Size of infected areas or names of infected areas; 8) Preventive/control measures taken; 9) Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); 10) Published paper (articles in journals/website, etc). and 11) Unknown diseases: describe details as much as possible.)

Comment No.	
1	**White Spot Disease (WSD)** **Pathogen**: White spot syndrome virus (WSSV) **Species affected:** *Penaeus monodon* and *Litopenaeus vannamei* (15-40 DOC) **Name of affected area:** reported in 14 provinces including Nam Dinh, Nghe An, Ha Tinh, Quang Tri, Quang Ngai, Ninh Thuan, Ho Chi Minh City, Tien Giang, Ben Tre, Tra Vinh, Kien Gang, Soc Trang, Bac Lieu and Ca Mau. **Mortality rate:** medium to high, 100% in some cases within 10 days. **Clinical signs:** lethargic or moribund shrimps accumulated at pond surface and edges, slow to erratic swimming behavior, overall body color often reddish, minute to large (0.5-2.0 mm diameter) white inclusions embedded in the cuticle, especially in the removed carapace held to light after scraping off attached tissue (not always seen) **Control measures:** early harvest, strict isolation of infected ponds with movement and transport controls, disinfection of infected ponds using Calcium hypochlorite (chlorine).

2	**Acute hepatopancreatic necrosis syndrome (AHHPNS)** **Pathogen:** *Vibrio parahaemolyticus* with Phage A3 **Name of affected area:** The disease is still affecting 11 provinces (around 1,700 ha) including Quan Ninh (North), Nghe An, Ha Tinh, Phu Yen, Ninh Thuan (Central Coast), and Ho Chi Minh City, Ben Tre, Tien Gang, Tra Vinh, Bac Lieu and Ca Mau (South; Mekong Delta). **Mortality rate:** Mortality recorded at 10-45 days post stocking in both *P. monodon* and L. vannamei in intensive and semi-intensive farming systems was as high as 95%. **Clinical signs:** lethargy, soft and darkened shells, and mottling of the carapace; pathology appears to be limited to the hepatopancreas. **Control measures:** strict isolation of infected ponds; movement/transportation controls; use of calcium hypochlorite (Chlorine) to disinfect ponds.

2. New aquatic animal health regulations introduced within past six months (with effective date): None

List of Diseases in the Asia-Pacific
Quarterly Aquatic Animal Disease Report (Beginning 2013)

1. DISEASES PREVALENT IN THE REGION	
1.1 FINFISH DISEASES	
OIE-listed diseases	**Non OIE-listed diseases**
1. Epizootic haematopoietic necrosis	1.Grouper iridoviral disease
2. Infectious haematopoietic necrosis	2.Viral encephalopathy and retinopathy
3. Spring viraemia of carp	3.Enteric septicaemia of catfish
4. Viral haemorrhagic septicaemia	
5. Epizootic ulcerative syndrome	
6. Red seabream iridoviral disease	
7. Infection with koi herpesvirus	
1.2 MOLLUSC DISEASES	
OIE-listed diseases	**Non OIE-listed diseases**
1. Infection with *Bonamia exitiosa*	1. Infection with *Marteilioides chungmuensis*
2. Infection with *Perkinsus olseni*	2. Akoya oyster disease
3. Infection with abalone herpes-like virus	3. Acute viral necrosis (in scallops)
4. Infection with *Xenohaliotis californiensis*	
1.3 CRUSTACEAN DISEASES	
OIE-listed diseases	**Non OIE-listed diseases**
1. Taura syndrome	1. Monodon slow growth syndrome
2. White spot disease	2. Milky haemolymph disease of spiny lobster (*Panulirus* spp.)
3. Yellowhead disease	
4. Infectious hypodermal and haematopoietic necrosis	3. Acute hepatopancreatic necrosis syndrome (AHPNS)
5. Infectious myonecrosis	
6. White tail disease (MrNV)	
7. Necrotising hepatopancreatitis	
1.4 AMPHIBIAN DISEASES	
OIE-listed diseases	**Non OIE-listed diseases**
1. Infection with Ranavirus	
2. Infection with *Bachtracochytrium dendrobatidis*	
2. DISEASES PRESUMED EXOTIC TO THE REGION	
2.1 Finfish	
OIE-listed diseases	**Non OIE-listed diseases**
1. Infectious salmon anaemia	1. Channel catfish virus disease
2. Infection with Gyrodactylus salaris	
2.2 Molluscs	
OIE-listed diseases	**Non OIE-listed diseases**
1. Infection with *Bonamia ostreae*	
2. Infection with *Marteilia refringens*	
3. Infection with *Perkinsus marinus*	
2.3 Crustaceans	
OIE-listed diseases	**Non OIE-listed diseases**
1. Crayfish plague (*Aphanomyces astaci*)	

Recent Aquatic Animal Health Related Publications

OIE Aquatic Animal Health Code, 15th Edition, 2012. The OIE Aquatic Animal Health Code (the Aquatic Code) sets out standards for the improvement of aquatic animal health and welfare and veterinary public health worldwide, including through standards for safe international trade in aquatic animals (amphibians, crustaceans, fish and molluscs) and their products. The health measures in the Aquatic Code should be used by the veterinary authorities of importing and exporting countries to provide for early detection, reporting and control of agents pathogenic to aquatic animals and, in the case of zoonotic diseases, for humans, and to prevent their transfer via international trade in aquatic animals and aquatic animal products, while avoiding unjustified sanitary barriers to trade.The health measures in the Aquatic Code have been formally adopted by the World Assembly of OIE Delegates, which constitutes the organisation's highest decision-making body. This 15th edition incorporates modifications to the Aquatic Code agreed at the 80th General Session in May 2012.The 2012 edition includes revised information on the following subjects: glossary; notification of diseases and epidemiological information; criteria for listing aquatic animal diseases; diseases listed by the OIE; import risk analysis; welfare of farmed fish during transport; welfare aspects of stunning and killing of farmed fish for human consumption; and disinfection of salmonid eggs for infectious haematopoietic necrosis, infectious salmon anaemia and viral haemorrhagic septicaemia. This edition includes four new chapters on communication; monitoring of the quantities and usage patterns of antimicrobial agents used in aquatic animals; development and harmonisation of national antimicrobial resistance surveillance and monitoring programmes for aquatic animals; and killing of farmed fish for disease control purposes. The Aquatic Animal Health Code is available for free download http://www.oie.int/en/international-standard-setting/aquatic-code/access-online/

OIE Manual of Diagnostic Tests for Aquatic Animals, 2013. The purpose of this manual is to provide a uniform approach to the detection of the diseases listed in the OIE *Aquatic Animal Health Code*, so that the requirements for health certification in connection with trade in aquatic animals and aquatic animal products can be met. It includes bibliographical references and a list of the OIE Reference Laboratories for amphibian, crustacean, fish and mollusc diseases. The manual is available for free download at http://www.oie.int/en/international-standard-setting/aquatic-manual/access-online/.

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Instructions on how to fill in the
QUARTERLY AQUATIC ANIMAL DISEASE REPORT
(Revised during the Provisional Meeting of the AG[1], Bangkok, Thailand, November 7-9, 2001)

Symbols used in the report are similar to those used by FAO, OIE and WHO for the *Animal Health Yearbook*. Please read these instructions carefully before you fill in the forms.

Under the heading 'Country', please enter your country.

Under the heading 'Period', please enter the reporting quarter (months) and year, e.g. January to March 2002.

Under the heading "Month", please enter months of a quarter in question, e.g. January, February, March.

In "Level of Diagnosis", please enter the Level of Diagnosis used, e.g., I, II, or III. See Section C below.

In "Epidemiological Comment Numbers", please enter the serial numbers, and write your corresponding epidemiological comments on page 2. See Section D below for guidance on the subjects to be covered under Epidemiological Comments.

If an unknown disease of serious nature appears, please fill in the last line of the form, with additional information on "Level of Diagnosis" and "Epidemiological Comment Numbers" as above.

Please do not fail to enter "*******" or "**-**" as appropriate against each disease, which is essential to incorporate your information on the *Quarterly Aquatic Animal Disease Report (Asia and Pacific Region.)*

If you have new aquatic animal health regulations introduced within the past six months, please describe them under Section 2 on page 2.

Please use the following symbols to fill in the forms.

A. Symbols used for negative occurrence are as follows:

*** This symbol means that no information on a disease in question is available due to reasons such as lack of surveillance systems or expertise.

- This symbol is used when a disease is not reported during a reporting period. However the disease is known to be present in the country (date of last outbreak is not always known).

0000 This symbol is used when disease surveillance is in place and a disease has never been reported.

(year) Year of last occurrence (a disease has been absent since then).

B. Symbols used for positive occurrence are shown below.

+ This symbol means that the disease in question is reported or known to be present.

+? This symbol is used when the presence of a disease is suspected but there is no recognised occurrence of clinical signs of the disease in the country. Serological evidence and isolation of the causal agent may indicate the presence of the disease, but no confirmed report is available. **It is important that the species of animals to which it applies is indicated in the "Comments" on page 2 of the form if you use this symbol**.

+( ) These symbols mean that a disease is present in a very limited zone or zones as exceptional cases. It may also include the occurrence of a disease in a quarantine area.

? This symbol is used only when a disease is suspected by the reporting officer, but the presence of the disease has not been confirmed.

+?( ) These symbols mean that confirmed infection/infestation is limited to one of more zones of the country, but no clinical disease.

?( ) These symbols mean the presence of the disease suspected but not confirmed in a zone.

[1] Regional Advisory Group on Aquatic Animal Health (AG)

C. Levels of Diagnosis

LEVEL	SITE	ACTIVITY
I	Field	Observation of animal and the environment Clinical examination
II	Laboratory	Parasitology Bacteriology Mycology Histopathology
III	Laboratory	Virology Electron microscopy Molecular biology Immunology

D. Subjects to be covered in the Epidemiological Comments

1. Origin of the disease or pathogen (history of the disease);
2. Mortality rate (high/low or decreasing/increasing);
3. Size of infected areas or names of infected areas;
4. Death toll (economic loss, etc.);
5. Preventive/control measures taken;
6. Disease characteristics (unusual clinical signs or lesions);
7. Pathogen (isolated/sero-typed);
8. Unknown diseases (describe details as much as possible);
9. Samples sent to national or international laboratories for confirmation (indicate the names of laboratories); and
10. Published paper (articles in journals)/web site, etc.

IMPORTANT

Please send the **original report** or the best photocopy thereof to the OIE and/or NACA **by fax** and **registered airmail**. Faxed reports are needed to check whether or not the reports are all right. The deadline for submission of the reports is **two and a half months (75 days)** after the end of the quarterly period.

If you require further explanation, please write to the OIE (Tokyo), NACA (Bangkok) or FAO (Rome) at the following addresses, respectively:

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