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AQUATIC ANIMAL DISEASE REPORT
(Asia and Pacific Region)

October-December 2007

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Foreword

OIE/NACA Regional Workshop on Aquatic Animal Health

The OIE/NACA Regional Workshop on Aquatic Animal Health organised by the World Organisation for Animal Health (OIE) and the Network of Aquaculture Centres in Asia-Pacific (NACA), was opened on 25th March 2008 in Maruay Garden Hotel, Bangkok, Thailand by Dr Sakchai Sriboonsue, Director General of Department of Livestock Development, Royal Government of Thailand. The objectives of the 4 day (25-28 March 2008) workshop were: (a) To recognise the importance of control and prevention of aquatic animal diseases, of their negative impacts and of responsibilities of government authorities; to provide updated information on Emerging Aquatic Animal Diseases in the Region; to train National Focal points on OIE Aquatic Animal Disease Standards (OIE Code and Manual) and on OIE World Animal Health Information System (WAHIS) (using computers) for the purpose of above; and to strengthen regional collaboration on aquatic animal disease control and prevention.

OIE aquatic focal points nominated by OIE delegates from 19 countries in the region participated in the workshop. Resource experts from the OIE Aquatic Animal Health Standards Commission, OIE Information Department (Paris), OIE Regional Representation for Asia and the Pacific, Food and Agriculture Organization of the United Nations (FAO), Thailand Department of Fisheries, Mahidol University in Bangkok, SEAFDEC AQD and NACA provided technical presentations and hands on practical training in WAHIS online reporting. Representatives from 19 countries provided country reports focusing on aquatic animal health situation in the country, constraints against aquatic animal disease control and needs of international/regional collaboration, and national mechanisms of aquatic animal disease surveillance and reporting. CD containing resource papers and country reports has been provided to all the participants.

A new initiative to establish and operationalize a WAHIS OIE-NACA Regional Core on aquatic animal diseases that will accommodate OIE listed and non-OIE listed diseases of regional concern was also discussed. The QAAD (Quarterly aquatic animal disease) reporting system will continue until the WAHIS OIE-NACA regional core becomes functional. The NACA Asia Regional Advisory Group on Aquatic Animal Health (AG) will support the WAHIS OIE-NACA Regional Core and assist in revising the list of diseases to be included in the Regional Core on an annual basis. The Regional Core is expected to increase the speed and accuracy of international aquatic animal disease reporting and to provide a valuable resource for the formulation of international trade and quarantine policy. The Regional Core will be based on the same software as WAHIS, which allows member governments to submit disease reports directly to the OIE Central Bureau in Paris via a web-based interface, and contains an automated warning system that alerts members via email when one member submits an urgent disease notification. The envisaged Regional Core will provide access to both current and historical records on the aquatic animal health status in member countries and can generate customized health/disease status reports on demand. The outputs of the Regional Core will be hosted on NACA and OIE Regional Representation for Asia and the Pacific websites.

The workshop made the following conclusions and recommendations:

1. The Workshop noted the development of regional cooperation for aquatic animal health and thus the development of aquaculture in Asia and the Pacific and also the continued collaboration by the World Organisation for Animal Health (OIE), the Network of Aquaculture Centres in Asia-Pacific (NACA) and the Food and Agriculture Organization of the United Nations (FAO) for improvement of aquatic animal health in the Region. The activities by NACA, OIE and FAO include collection, dissemination and exchange of information and experience about the OIE listed diseases and other diseases of regional concern.
2. The Workshop noted that aquaculture is important in the Asia and Pacific Region because it provides about 90% of the world aquaculture production, and thus aquatic animal health needs to be further strengthened for the sustainable development of aquaculture to ensure the important functions to provide animal protein to humans and to provide aquatic farmers with opportunities of generating income, and so contributing to food security and poverty reduction.
3. The Workshop noted that aquaculture is facing problems including aquatic animal diseases which are impediments to the continuing development of the sector and of safe international trade in aquatic animals and their products.
4. The Workshop also recognized that the World Animal Health Information System (WAHIS) is an appropriate and quick tool of reporting aquatic animal health information. Members submit immediate notification and follow-ups, and regular reports such as every six months, which allows better early warning and monitoring of the aquatic animal health situation worldwide.
5. The Workshop noted that while many countries in the Region have made excellent progress in providing aquatic animal disease information through their competent authorities, constraints remain in other countries. These include insufficient diagnostic capacity and cooperation/coordination between veterinary authorities and other competent authorities such as fisheries. In some countries, this has been greatly improved through the appointment of aquatic animal health focal points by OIE Delegates.

6. The Workshop recommended that;

6-1 activities by the aquatic animal health focal points nominated by the OIE Delegates from veterinary authorities or other competent authorities such as fisheries when applicable, should be further strengthened for exchange of information and experiences at the regional level and for active participation through the OIE Delegates in the OIE international standard setting process.

6-2 the aquatic animal health focal points should send aquatic animal health information to the OIE Delegate for submission to the OIE Central Bureau in Paris in line with rules and guidelines of the OIE, according to the Chapter 1.2.1 of the Aquatic Animal Health Code.
The OIE Delegate will confirm the role of the focal point on Aquatic animal diseases by giving him/her a username and password for a direct access to WAHIS for reporting on Aquatic animal diseases.

6-3 the OIE Central Bureau should ensure that all nominated national focal points are provided with the Aquatic Animal Health Standards Commission reports and impress upon OIE Delegates of the importance of effectively facilitating the collation of comments on draft text from experts within their country, and to provide a consolidated national response for submission to the OIE.

6-4 the on-going aquatic animal health information system (QAAD reports) should continue to be used during the transitional period, until the on-line WAHIS/OIE-NACA Regional Core becomes functional.

6-5 a regional meeting or workshop should be organized for the National Aquatic Focal Points to provide updates on aquatic animal health, where appropriate.

6-6 the Memorandum of Understanding on the cooperation between NACA and OIE should be developed as soon as possible for further strengthening cooperation between both the organizations on aquatic animal health information for the Region and to set up WAHIS/OIE-NACA Regional Core.

Reports Received by the NACA Secretariat

Country: AUSTRALIA Period: October-December 2007

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	-(2004)	-(2004)	-(2004)		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 (EUS)	-(2007)	-(2007)	-(2007)		2
6. Red seabream iridoviral disease	0000	0000	0000		
7. Koi herpesvirus disease	0000	0000	0000		
Non OIE-listed diseases					
8. Epitheliocystis	***	***	***		
9. Grouper iridoviral disease	0000	0000	0000		
10. Viral encephalopathy and retinopathy	-(2007)	+	+	III	3
11. Enteric septicaemia of catfish	-(2001)	-(2001)	-(2001)		4
12. Bacterial kidney disease	0000	0000	0000		
13. Infectious pancreatic necrosis	0000	0000	0000		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	+	+	+	II	5
3. Abalone viral mortality	***	***	***		
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	-(2007)	-(2007)	-(2007)		6
5. Infection with *Marteilioides chungmuensis*	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	0000	0000	0000		
3. Yellowhead disease (YH virus, gill-associated virus)	0000/ -(2007)	0000/ -(2007)	0000/ -(2007)		7
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)	-(2005)	+	-(2007)	II	8
5. Infectious hypodermal and haematopoietic necrosis	-(2004)	-(2004)	-(2004)		9
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	0000	0000	0000		
Non OIE-listed diseases					
7. Infectious myonecrosis	***	***	***		
8. Baculoviral midgut gland necrosis	0000	0000	0000		
9. White tail disease (MrNV and XSV)	***	***	***		
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					
1.Abalone viral ganglioneuritis	+	+	+	III	10
2.Oyster oedema disease	+	+	+	III	11

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

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, but is known to have occurred previously in Victoria (last year reported 2004), New South Wales (last year reported 2003) and South Australia (last year reported 1992). Targeted surveillance and never reported in Tasmania. Passive surveillance and never reported in the Northern Territory, Queensland or Western Australia. Annual occurrence of the disease in the Australian Capital Territory, but no laboratory confirmation.
2	Epizootic ulcerative syndrome was not reported during this period despite active surveillance but is considered endemic to certain streams and rivers of the Northern Territory (last year reported 2006). Not reported despite passive surveillance, but is known to have occurred previously in Queensland (last reported third quarter 2007), New South Wales (last year reported 2006) and Victoria (last year reported 2002). Passive surveillance and never reported in South Australia and Tasmania. Not reported this quarter but considered to be endemic in Western Australia. No information available in the Australian Capital Territory.

3	**Viral encephalopathy and retinopathy** 1. **Reported in the Northern Territory** in December 2007. Active surveillance; 2. **In** - juvenile *Lates calcarifer*; 3. **Clinical signs-** high mortality; 4. **Pathogen-** nodavirus; 5. **Mortality rate-** 100%; 6. **Economic loss-** minimal; 7. **Geographic extent-** one nursery tank; 8. **Containment measures-** quarantine of stock; 9. **Laboratory confirmation-** diagnosed by histopathology and PCR; 10. **Publications-** unpublished. 1. **Reported in Queensland** in November 2007. Passive surveillance; 2. **In** a) *Lates calcarifer,* 27-day old and (b) *Epinephelus coioides,* 50-day old; 3. **Clinical signs-** a) weak swimming and thin body, b) darkened body colour, weak swimming and rapid opercular movements; 4. **Pathogen-** betanodavirus; 5. **Mortality rate-** a) minor b) 2%; 6. **Economic loss-** not reported; 7. **Geographic extent-** a) one hatchery; b) one tank in a single research facility; 8. **Containment measures-** none, endemic to area; 9. **Laboratory confirmation-** diagnosed by histopathology; 10. **Publications-** unpublished. Not reported this period despite targeted surveillance from South Australia (last year reported 2004). Not reported this quarter despite passive surveillance from New South Wales (last year reported 2006), Western Australia (last year reported 2005) and Tasmania (last year reported 2000). Never reported from Victoria despite passive surveillance. No information available in the Australian Capital Territory.
4	Enteric septicaemia of catfish was not reported this quarter but is known to have occurred in zebrafish (*Brachydanio rerio*) in PC2 containment in Tasmania (last year reported 2001). Never reported in New South Wales, Northern Territory, Queensland, South Australia and Victoria despite passive surveillance. No information available in the Australian Capital Territory and Western Australia.
5	***Perkinsus olseni*** 1. **Reported in South Australia** in October, November and December 2007. Targeted surveillance; 2. **In** wild (but not cultured) blacklip abalone (*Haliotis rubra)* and greenlip abalone (*Haliotis laevigata)*; 3. **Clinical signs-** pustules on epipodium (typical gross signs of perkinsosis in abalone); 4. **Pathogen-** *Perkinsus olseni*; 5. **Mortality rate-** no mortalities observed, some morbidity associated with infection. Infections are ongoing; 6. **Economic loss-** unknown; 7. **Geographic extent-** open system. Lower Eyre and Yorke Peninsulas; 8. **Containment measures-** none; 9. **Laboratory confirmation-** diagnosed by histology; 10. **Publications-** unpublished. Not reported this quarter from Western Australia despite targeted surveillance (last year reported 2003). While *Perkinsus* has been isolated previously by culture off the gills of a clinically normal abalone in 2003, clinical infection from *Perkinsus* has never been reported from Western Australia. Not reported this period despite passive surveillance from New South Wales (last year reported 2005). Passive surveillance and never reported in the Northern Territory, Queensland, Tasmania and Victoria. No information available in the Australian Capital Territory (no marine water responsibility).
6	Infection with *Marteilia sydneyi* was not reported this period despite passive surveillance but is known to have occurred previously in New South Wales (last reported first quarter 2007), Queensland (last year reported 2006) and Western Australia (last year reported 1994). Passive surveillance and never reported in the Northern Territory, South Australia, Tasmania or Victoria. No information available in the Australian Capital Territory (no marine water responsibility).

7	**Yellowhead virus:** Active surveillance and never reported in the Northern Territory. Passive surveillance and never reported in New South Wales, Queensland, South Australia, Victoria and Western Australia. No information available from the Australian Capital Territory (no marine water responsibility) and Tasmania (susceptible species not present). Gill-associated virus was not reported this period despite passive surveillance but is known to have occurred previously in the Northern Territory (last reported second quarter 2007). Not reported this quarter despite active surveillance in Western Australia (last year reported 2005). Not reported this period despite passive surveillance but known to have occurred previously in New South Wales (last year reported 2003). Gill-associated virus is considered endemic in Queensland where it is associated with the clinical syndrome Mid-crop Mortality Syndrome (MCMS) and the role for mixed virus infections in MCMS do not make it possible at this time to have a specific case definition for disease caused by gill-associated virus. Passive surveillance and never reported in South Australia and Victoria. No information available in Australian Capital Territory (no marine water responsibility) and Tasmania (susceptible species not present).
8	**Spherical baculovirosis** 1. **Reported in Queensland** in November 2007. Targeted surveillance; 2. **In** Penaeus monodon post larvae; 3. **Clinical signs-** clinically normal; 4. **Pathogen-** Penaeus monodon baculovirus; 5. **Mortality rate-** nil; 6. **Economic loss-** not reported; 7. **Geographic extent-** three tanks/batches from a single hatchery; 8. **Containment measures-** none, endemic to area; 9. **Laboratory confirmation-** diagnosed by histology; 10. **Publications-** unpublished. Not reported this period despite passive surveillance but is known to have occurred previously in New South Wales and Western Australia (last year reported 2002). Never reported despite passive surveillance in the Northern Territory, South Australia and Victoria. No information available in the Australian Capital Territory (no marine water responsibility) and Tasmania (susceptible species not present).
9	Infectious hypodermal and haematopoietic necrosis virus was not reported this period despite passive surveillance. This virus is known to have previously occurred in Queensland (last year reported 2004) and in the Northern Territory (last year reported 2003). No disease has been associated with the virus. The Australian virus is considered to be closest to the avirulent Madagascar strain. Passive surveillance and never reported in New South Wales, South Australia, Victoria and Western Australia. No information available in Australian Capital Territory (no marine responsibility) and Tasmania (susceptible species not present).
10	Abalone viral ganglioneuritis continues to be reported in wild abalone on reefs in western Victoria. Monitoring indicates that abalone farms continue to be free from the disease.
11	*Pinctada maxima* mortalities have continued on a small number of pearl oyster leases in northern Western Australia. Investigations into the aetiology of the disease are on-going. Affected leases remain under quarantine.

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

National Fish Kill Protocols

A *National Investigation and Reporting Protocol for Fish Kills* has been developed to provide a consistent national approach in the response to major fish kill incidents in marine, estuarine and freshwater environments in Australia.

The Protocol was developed by aquatic animal health specialists from academia, industry and Australian and state and territory governments. It contributes to AQUAPLAN (2005-2010), Australia's National Strategic Plan for Aquatic Animal Health, and was endorsed by Australian and state and territory governments in September 2007.

The Protocol sets minimum standards for the management of fish kill incidents, allowing thorough investigation to provide early warning of exotic or emerging diseases threatening Australia's aquatic ecosystems, fisheries resources or aquaculture industries.

The *National Investigation and Reporting Protocol for Fish Kills* is available on the Australian Government Department of Agriculture, Fisheries and Forestry website at http://www.daff.gov.au/animal-plant-health/aquatic/resources.

Biosecurity Australia Policy Memorandum 2007/16
Importation of Prawns and Prawn Products- Revised Interim Quarantine Measures

Stronger interim quarantine measures for prawns and prawn products were implemented in October and November 2007. The measures were introduced following the release of a revised draft import risk analysis (IRA) report on prawns and prawn products in November 2006 and consideration of more than 50 stakeholder submissions received on that report. Biosecurity Australia concluded that revised interim quarantine measures were required to manage the altered quarantine risk associated with imported prawns and prawn products. The Australian Quarantine Inspection Service has implemented the measures. The measures are that imported prawns:

- be sourced from a country or zone that is recognised by Australia to be free of whitespot syndrome virus (WSSV), infectious hypodermal and haematopoietic necrosis virus (IHHNV), yellowhead virus (YHV) and Taura syndrome virus (TSV); or

- be 'highly processed', head and shell-off (except for the last shell segment and tail fans), and coated for human consumption by being breaded or battered, marinated in a wet or dry marinade, marinated and placed on skewers or processed into dumpling, spring roll, samosa, roll, ball or dim sum-type product; or

- have the head and shell removed (except for the last shell segment and tail fans) and, if not from a disease free source, have each batch tested on arrival with negative results for WSSV, IHHNV and YHV; or

- be cooked.

Further information can be found on the Australian Government Department of Agriculture, Fisheries and Forestry website at http://www.daff.gov.au

Country: BANGLADESH Period: October-December 2007

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	***	***	***		
2. Infectious haematopoietic necrosis	***	***	***		
3. Spring viraemia of carp	***	***	***		
4. Viral haemorrhagic septicaemia	***	***	***		
5. Epizootic ulcerative syndrome (EUS)	-	+	+	II	1
6. Red seabream iridoviral disease	***	***	***		
7. Koi herpesvirus disease	***	***	***		
Non OIE-listed diseases					
8. Epitheliocystis	***	***	***		
9. Grouper iridoviral disease	***	***	***		
10. Viral encephalopathy and retinopathy	***	***	***		
11. Enteric septicaemia of catfish	***	***	***		
12. Bacterial kidney disease	***	***	***		
13. Infectious pancreatic necrosis	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Abalone viral mortality	***	***	***		
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	***	***	***		
5. Infection with *Marteilioides chungmuensis*	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	***	***	***		
2. White spot disease	+	+	-	II	2
3. Yellowhead disease (YH virus, gill-associated virus)	***	***	***		
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)	***	***	***		
5. Infectious hypodermal and haematopoietic necrosis	***	***	***		
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	***	***	***		
Non OIE-listed diseases					
7. Infectious myonecrosis	***	***	***		
8. Baculoviral midgut gland necrosis	***	***	***		
9. White tail disease (MrNV and XSV)	***	***	***		
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					
1.Mass mortality of tilapia (*O.niloticus*)	+	+	+()	II	3

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

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	Incidence of epizootic ulcerative syndrome (EUS) outbreak was reported from central region, Mymensingh, northern region and in some cages in the eastern part, Rangamati area during November and December, 2007. Indian major carps, *Anabas testudineus* and *Barbodes gonionotus* were the affected species. Clinical signs were recorded as hemorrhage, infection in both the upper and lower jaws, dermal lesions, tail erosion, less appetite, erratic movement and chronic mortality. Disease diagnosis was performed by histology (MG). Mortality rate varied from 10-25% in different farms. Chemicals such as lime, salt, potassium permanganate and imported commercial drugs and antibiotics were applied by farmers to control the disease. Most of the farmers exchanged 20-30% water after outbreak of disease.
2	Outbreak of white spot disease in *Penaeus monodon* was reported from extensive shrimp farms at Bagerhat, Tala, Paikgacha and Cox's Bazar, southern regions and eastern part of the country. Typical and prominent white spots were observed and recorded. PCR test also confirmed the presence of white spot virus. Mortality rate varied from 22-60% in different farms.
3	Mass mortality was observed in monosex tilapia (*Orechromis niloticus*) during the reported period throughout the country. Clinical signs were observed in tilapia was heavily infection at the mouth region, excessive slime secretion, discoloration, blood clotted eyes, no appetite and sluggish movement. Mortality ranges from 30-50%. Lime, salt and potassium permanganate were used by most of the farmers having problems with tilapia.

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

Country: CAMBODIA Period: October-December 2007

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis					
2. Infectious haematopoietic necrosis					
3. Spring viraemia of carp	***	***	***		
4. Viral haemorrhagic septicaemia					
5. Epizootic ulcerative syndrome (EUS)	-	-	-	I & II	
6. Red seabream iridoviral disease					
7. Koi herpesvirus disease	***	***	***		
Non OIE-listed diseases					
8. Epitheliocystis					
9. Grouper iridoviral disease	***	***	***		
10. Viral encephalopathy and retinopathy	***	***	***		
11. Enteric septicaemia of catfish	***	***	***		
12. Bacterial kidney disease					
13. Infectious pancreatic necrosis					
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*					
2. Infection with *Perkinsus olseni*					
3. Abalone viral mortality					
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*					
5. Infection with *Marteilioides chungmuensis*					
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	***	***	***		
2. White spot disease	***	***	***		
3. Yellowhead disease (YH virus, gill-associated virus)	***	***	***		
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)					
5. Infectious hypodermal and haematopoietic necrosis					
6. Tetrahedral baculovirosis (*Baculovirus penaei*)					
Non OIE-listed diseases					
7. Infectious myonecrosis					
8. Baculoviral midgut gland necrosis					
9. White tail disease (MrNV and XSV)	***	***	***		
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease					
ANY OTHER DISEASES OF IMPORTANCE					

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

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

Country: HONG KONG SAR Period: October-December 2007

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
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	II	
5. Epizootic ulcerative syndrome (EUS)	0000	0000	0000	II	
6. Red seabream iridoviral disease	+	-	-	III	1
7. Koi herpesvirus disease	+	-	-	III	2
Non OIE-listed diseases					
8. Epitheliocystis	(2002)			II	
9. Grouper iridoviral disease	-	-	-	III	
10. Viral encephalopathy and retinopathy	+	+	-	III	3
11. Enteric septicaemia of catfish	0000	0000	0000	II	
12. Bacterial kidney disease	0000	0000	0000	II	
13. Infectious pancreatic necrosis	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. Abalone viral mortality	0000	0000	0000	II	
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	0000	0000	0000	II	
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000	II	
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000	III	
2. White spot disease	+	-	-	III	4
3. Yellowhead disease (YH virus, gill-associated virus)	0000	0000	0000	II	
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)	0000	0000	0000	II	
5. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000	II	
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	0000	0000	0000	II	
Non OIE-listed diseases					
7. Infectious myonecrosis	0000	0000	0000	II	
8. Baculoviral midgut gland necrosis	0000	0000	0000	II	
9. White tail disease (MrNV and XSV)	0000	0000	0000	II	
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	0000	0000	0000	II	
ANY OTHER DISEASES OF IMPORTANCE					

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

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	In October, there was one case of red seabream iridovirus found in a small batch of greem groupers (*Epinephelus coioides*). They were presented with pale gills and skin ulcerations. Mortality rate was 70% and morbidity was 100%. Source of infection was not established..
2	One case of koi herpes virus infection mostly affecting koi carp (*Cyrpinus carpio*) was seen in October. The sample was sent in by a fish farm in routine health monitoring exercise. Source of infection was not established.
3	Three cases of viral encephalopathy and retinopathy were found in samples of giant grouper (*Epinephelus lanceolatus*) from a single aquaculture pemises in October and November. The mortality and morbidity were 50% and 100%. 0.625% and 100%, 10% and 100% from the three cases respectively. The histological findings were consistent with the diseases. The source of infection was suspected to be brought in by the brood stock.
4	White spot syndrome was detected by PCR during routine health monitoring of 4 species of crustaceans from an exporters premises but these animals were clinically healthywith no gorss pathology lesion.

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

Country: INDIA **Period: October-December 2007**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
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 (EUS)	-	-	-		
6. Red seabream iridoviral disease	0000	0000	0000		
7. Koi herpesvirus disease	0000	0000	0000		
Non OIE-listed diseases					
8. Epitheliocystis	0000	0000	0000		
9. Grouper iridoviral disease	0000	0000	0000		
10. Viral encephalopathy and retinopathy	0000	0000	0000		
11. Enteric septicaemia of catfish	0000	0000	0000		
12. Bacterial kidney disease	0000	0000	0000		
13. Infectious pancreatic necrosis	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. Abalone viral mortality	0000	0000	0000		
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	0000	0000	0000		
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	-	-	-		
3. Yellowhead disease (YH virus, gill-associated virus)	***	***	***		
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)	0000	0000	0000		
5. Infectious hypodermal and haematopoietic necrosis	***	***	***		
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	0000	0000	0000		
Non OIE-listed diseases					
7. Infectious myonecrosis	0000	0000	0000		
8. Baculoviral midgut gland necrosis	0000	0000	0000		
9. White tail disease (MrNV and XSV)	***	***	***		
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					

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

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

Country: INDONESIA **Period: October-December 2007**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
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 (EUS)	0000	0000	0000		
6. Red seabream iridoviral disease	0000	0000	0000		
7. Koi herpesvirus disease	-	-	+	III	1
Non OIE-listed diseases					
8. Epitheliocystis	0000	0000	0000		
9. Grouper iridoviral disease	-	-	+	II	2
10. Viral encephalopathy and retinopathy	+	+	+	III	3
11. Enteric septicaemia of catfish	0000	0000	0000		
12. Bacterial kidney disease	0000	0000	0000		
13. Infectious pancreatic necrosis	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. Abalone viral mortality	0000	0000	0000		
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	0000	0000	0000		
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	+	-	+	III	4
2. White spot disease	+	+	+	II, III	5
3. Yellowhead disease (YH virus, gill-associated virus)	0000	0000	0000		
4. Spherical baculovirosis (*Penaeus monodon*-type	-	-	-	II	
5. Infectious hypodermal and haematopoietic necrosis	+	+	+	III	6
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	0000	0000	0000		
Non OIE-listed diseases					
7. Infectious myonecrosis	+	+	+	III	7
8. Baculoviral midgut gland necrosis	0000	0000	0000		
9. White tail disease (MrNV and XSV)	0000	0000	0000		
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					
1. Infection with *Aeromonas hydrophilla*	-	+	+	II	8

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

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	1). Reported : in West Java province in December 2007. 2). Species affected: *Cyprinus carpio* from fingerling size to consumable size. 3). Clinical sign: low to high damage on gill, ulcer, hemorrhage and irritation on part of body. 4). All samples have been detected by PCR analyze 5). Pathogen: Koi Herpesvirus 6). Mortality rate: low to medium (30 to > 50%) 7). Economic loss: – 8). Names of infected areas: Sukabumi, Cirata-Cianjur dan Bandung district in West Java province. 9). Preventive/control measures: – 10). Laboratory confirmation diagnosed by PCR in Main Center for Freshwater Aquaculture Development Sukabumi Laboratory; 11). Publications: Unpublished
2	1). Reported in Lampung province in December 2007; 2). Species affected: grouper 3). Clinical sign: - 4). All samples have been detected by PCR analyze 5). Pathogen: Grouper iridoviral 6). Mortality rate: no mortality 7). Economic loss: – 8). Names of infected areas: Kalianda district in Lampung province. 9). Preventive/control measures: – 10).Laboratory confirmation diagnosed by PCR in Main Centre of Mariculture Development Center Laboratory in Lampung ; 11). Publications: Unpublished.

3	1). Reported in East Java province in October until December 2007; Lampung province in November 2007. 2).Species affected totiger grouper (*Ephinephelus fuscoguttatus*) seed reared in hatchery at Situbondo, East Java and Lampung province. 3). All samples have been detected by PCR analyze 4). Pathogen: Betanodavirus 5). Mortality rate: low 6). Economic loss: – 7). Names of infected areas: some hatchery in Situbondo, East Java; Teluk Hurun district in Lampung province. 8). Preventive/control measures: – 9).Laboratory confirmation diagnosed in Brackiswater Development Center Laboratory in Situbondo, East Java; Main Centre of Mariculture Development Center Laboratory in Lampung ; 10). Publications: Unpublished.
4	1). Reported in East Java province in October and December 2007 2). Species affected to *Penaeus vanamei* 3). All samples have been detected by PCR analyze 4). Pathogen: Taura Syndrome Virus 5). Mortality rate: medium 6). Economic loss: low 7). Names of infected areas: shrimp culture in East Java province; 8). Preventive/control measures: – 9). Laboratory confirmation diagnosed by PCR in Brackiswater Development Center Laboratory in Situbondo, East Java; 10). Publications: Unpublished.
5	1). Reported in East Java in November 2007; Central Java in October until December 2007; Lampung in October and December 2007 2). Species affected to *P. vanamei and monodon* ; 3). Clinical sign: there are white spot in skin surface of shrimp had infected, before that affected shrimp are weak and swimming on the surface of water 4). All samples have been detected by PCR analyze 5). Pathogen: White Spot Syndrome Virus 6). Mortality rate: low 7). Economic loss: low 8). Names of infected areas: several ponds in East Java; several ponds in Jepara, Demak and Kendal district (Central Java); Kalianda district in Lampung. 9). Preventive/control measures: – 10). Laboratory confirmation diagnose by PCR in Brackishwater Development Center Situbondo Laboratory in East Java;, Main Centre of Brackishwater Development Center Jepara Laboratory in Central Java; Main Centre of Mariculture Development Center Laboratory in Lampung ; 11). Publications: Unpublished
6	1). Reported in East Java in October until December 2007; Central Java in November 2007; Lampung in November 2007. 2). Species affected to *P. vannamei* 3). All samples have been detected by PCR analyze 4). Pathogen: family *Parvoviridae* 5). Mortality rate: low 6). Economic loss: - 7). Names of infected are: shrimp culture in East Java province; 8). Preventive/control measures: – 9). Laboratory confirmation diagnose by PCR in Brackishwater Development Center Situbondo Laboratory in East Java; Main Centre of Brackishwater Development Center Jepara Laboratory in Central Java; Main Centre of Mariculture Development Center Laboratory in Lampung ; 10). Publications: Unpublished.

7	1). Reported in East Java in October and December 2007; 2). Species affected to broodstock and fingerling of *Penaeus vannamei* ; 3). The clinical sign: red color on the abdominal segment end tail fan, myo-necrosis with the white color aspect; 4). Pathogen: IMNV in Totiviridae family 5). Sample have been detected by PCR analyze 6). Mortality rate: low – medium (< 40%) 7). Economic loss: – 8). Names of infected area: several ponds of shrimp culture in East Java province; 9). Preventive/control measures: – 10). Laboratory confirmation diagnosed by PCR analyze in Brackishwater Aquaculture Development Center Situbondo Laboratory in East Java. 11) Publications: Unpublished.
8	1). Reported in West Java in November- December 2007; South Kalimantan in December 2007 2). Species affected to *Cyprinus carpio* and Gouramy in West Java; Anabas testudineus in South Kalimantan 3). Clinical sign: • In West Java for *C carpio* : hemorrhage and irritation on part of body; low to high damage on gill; • In West Java for Gouramy : hemorrhage and ulcer on part of body 4). Mortality rate: on C carpio and Gouramy : high 5). Economic loss: – 6). Names of infected areas: C. carpio in Sukabumi district and Gouramy in Tasikmalaya, West Java. ; some district in South Kalimantan. 7). Preventive/control measures: – 8). Laboratory confirmation diagnosed by Main Center for Freshwater Aquaculture Development Sukabumi Laboratory; Freshwater Aquaculture Development Center Mandiangin Laboratory in South Kalimantan. 9). Publications: Unpublished.

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

Country: IRAN **Period: July-September 2007**

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 (EUS)	0000	0000	0000		
6. Red seabream iridoviral disease	***	***	***		
7. Koi herpesvirus disease	0000	0000	0000		
Non OIE-listed diseases					
8. Epitheliocystis	***	***	***		
9. Grouper iridoviral disease	***	***	***		
10. Viral encephalopathy and retinopathy	0000	0000	0000		
11. Enteric septicaemia of catfish	***	***	***		
12. Bacterial kidney disease	0000	0000	0000		
13. Infectious pancreatic necrosis	-	-	-		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Abalone viral mortality	***	***	***		
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	***	***	***		
5. Infection with *Marteilioides chungmuensis*	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	-	+()	-	III	1
3. Yellowhead disease (YH virus, gill-associated virus)	0000	0000	0000		
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)	0000	0000	0000		
5. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	0000	0000	0000		
Non OIE-listed diseases					
7. Infectious myonecrosis	***	***	***		
8. Baculoviral midgut gland necrosis	***	***	***		
9. White tail disease (MrNV and XSV)	***	***	***		
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					

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

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	The origin of brood stock was Guam, Only *P.vannamei* had been affected. The pathogen was detected by nested PCR, mortality rate was low, economic loss was low, the disease happened in a very limited zone in Boushehr province only during August 2007. All of the broodstock and PLs eliminated and establishment disinfected. The samples were sent to one of the national laboratory

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

Country: JAPAN **Period: October-December 2007**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
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	-	-	+	III	
5. Epizootic ulcerative syndrome (EUS)	-	-	-	I	
6. Red seabream iridoviral disease	+	+	+	III	
7. Koi herpesvirus disease	+	+	+	III	
Non OIE-listed diseases					
8. Epitheliocystis	+	+	+	II	
9. Grouper iridoviral disease	0000	0000	0000	I	
10. Viral encephalopathy and retinopathy	+	-	-	III	
11. Enteric septicaemia of catfish	0000	0000	0000	I	
12. Bacterial kidney disease	-	+	+	III	
13. Infectious pancreatic necrosis	-	+?	-	III	
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000	I	
2. Infection with *Perkinsus olseni*	0000	0000	0000	I	
3. Abalone viral mortality	0000	0000	0000	I	
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	0000	0000	0000	I	
5. Infection with *Marteilioides chungmuensis*	+	+	+	III	
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000	I	
2. White spot disease	+	-	-	III	
3. Yellowhead disease (YH virus, gill-associated virus)	0000	0000	0000	I	
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)	0000	0000	0000	I	
5. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000	I	
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	0000	0000	0000	I	
Non OIE-listed diseases					
7. Infectious myonecrosis	0000	0000	0000	I	
8. Baculoviral midgut gland necrosis	0000	0000	0000	I	
9. White tail disease (MrNV and XSV)	0000	0000	0000	I	
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	-	+	+	II	
ANY OTHER DISEASES OF IMPORTANCE					
1. Infection with *Edwardsiella ictalurai*	+()	-	-	II, III	1

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

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	1. Unkown 2. In Ayu (*Plecoglossus altivellis*) 3. Unusual clinical signs and lesions, haemorrhagic ascites 4. Pathogen isolated : *Edwardsiella ictlaruri* 5. Mortality rate: Unkown 6. Death rate: unkown 7. Size of infected area: limited to three rivers in Tokyo, Hiroshima and Yamaguchi in August until October 2007 8. Prevention and control measures taken: None 9. Samples sent to National Research Institute of Aquaculture, Fisheries Research Agency 10. Published papers: Website in MAFF

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

Country: **LAO PDR** Period: **July-September 2007**

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 (EUS)	0000	0000	0000		
6. Red seabream iridoviral disease	0000	0000	0000		
7. Koi herpesvirus disease	0000	0000	0000		
Non OIE-listed diseases					
8. Epitheliocystis	0000	0000	0000		
9. Grouper iridoviral disease	0000	0000	0000		
10. Viral encephalopathy and retinopathy	0000	0000	0000		
11. Enteric septicaemia of catfish	0000	0000	0000		
12. Bacterial kidney disease	0000	0000	0000		
13. Infectious pancreatic necrosis	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. Abalone viral mortality	0000	0000	0000		
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	0000	0000	0000		
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	0000	0000	0000		
3. Yellowhead disease (YH virus, gill-associated virus)	0000	0000	0000		
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)	0000	0000	0000		
5. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	0000	0000	0000		
Non OIE-listed diseases					
7. Infectious myonecrosis	0000	0000	0000		
8. Baculoviral midgut gland necrosis	0000	0000	0000		
9. White tail disease (MrNV and XSV)	0000	0000	0000		
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					
1. Streptococcosis	+	+	+	I,II	1

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

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
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not	(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 occurred in pond cultured tilapia (*Oreochromis niloticus*) Disease characteristics: darkening of body color, bilateral exophthalmia and around the eye, hemorrhage, opaque eyes, haemorrahges on the opercula and the base of the fins, some part of the body darkened Mortality reached 50% The disease occurred 2 cases in July to September: one pond culture limited areas at Ban Hadsco, Nasaythong District, Vientiane Capital and in cage culture tilapia durin raining season in Mekong River.

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

Country: **LAO PDR** Period: **October-December 2007**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
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	II,III	1
4. Viral haemorrhagic septicaemia	0000	0000	0000	II,III	2
5. Epizootic ulcerative syndrome (EUS)	0000	0000	0000		
6. Red seabream iridoviral disease	0000	0000	0000		
7. Koi herpesvirus disease	0000	0000	0000	II,III	3
Non OIE-listed diseases					
8. Epitheliocystis	0000	0000	0000		
9. Grouper iridoviral disease	0000	0000	0000		
10. Viral encephalopathy and retinopathy	0000	0000	0000		
11. Enteric septicaemia of catfish	0000	0000	0000		
12. Bacterial kidney disease	0000	0000	0000		
13. Infectious pancreatic necrosis	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. Abalone viral mortality	0000	0000	0000		
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	0000	0000	0000		
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	0000	0000	0000		
3. Yellowhead disease (YH virus, gill-associated virus)	0000	0000	0000		
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)	0000	0000	0000		
5. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	0000	0000	0000		
Non OIE-listed diseases					
7. Infectious myonecrosis	0000	0000	0000		
8. Baculoviral midgut gland necrosis	0000	0000	0000		
9. White tail disease (MrNV and XSV)	0000	0000	0000		
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					

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

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
		-	Not reported (but disease is known to occur)
?	Suspected by reporting officer but presence not	(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	Surveillance of emerging fish viral pathogens in Southeast Asia in December 2006

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

Country: MALAYSIA Period: October-December 2007

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	***	***	***		
2. Infectious haematopoietic necrosis	***	***	***		
3. Spring viraemia of carp	***	***	***		
4. Viral haemorrhagic septicaemia	***	***	***		
5. Epizootic ulcerative syndrome (EUS)	-	-	- (1986)		
6. Red seabream iridoviral disease	-	-	-	I,II,III	1
7. Koi herpesvirus disease	-	-	-	I,II,III	2
Non OIE-listed diseases					
8. Epitheliocystis	***	***	***		
9. Grouper iridoviral disease	-	-	-		
10. Viral encephalopathy and retinopathy	-	-	-	I,II,III	3
11. Enteric septicaemia of catfish	***	***	***		
12. Bacterial kidney disease	***	***	***		
13. Infectious pancreatic necrosis	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Abalone viral mortality	***	***	***		
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	***	***	***		
5. Infection with *Marteilioides chungmuensis*	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	-	-	-		4
2. White spot disease	-	-	-		5
3. Yellowhead disease (YH virus, gill-associated virus)	-	-	-		
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)	****	****	****		
5. Infectious hypodermal and haematopoietic necrosis	-	-	-		6
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	****	****	****		
Non OIE-listed diseases					
7. Infectious myonecrosis	***	***	***		
8. Baculoviral midgut gland necrosis	***	***	***		
9. White tail disease (MrNV and XSV)	***	***	***		
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					
1. *Streptococcus* infection	+	+	+		7

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

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 Iridoviral Disease KHV were not reported despite active surveillance in Kedah and Terengganu during this period.
2	Koi herpesvirus disease KHV were not reported despite active surveillance in Perak State during this period.
3	Viral Nervous Necrosis VNN were not reported despite active surveillance in Kedah and Terengganu during this period.
4	Taura syndrome (TSV) TSV were not reported during this period despite passive and active surveillance done by Fish disease diagnostic laboratory (KLIA lab) of Department Of Fisheries, Malaysia.
5	White spot disease (WSSV) WSSV were not reported during this period despite passive and active surveillance done by Fish disease diagnostic laboratory (KLIA lab) of Department Of Fisheries, Malaysia.
6	Infectious hypodermal and haematopoietic necrosis (IHHNV) IHHNV were not reported during this period despite passive and active surveillance done by Fish disease diagnostic laboratory (KLIA lab) of Department Of Fisheries, Malaysia.

7	Streptococcal Infection in tilapia Active surveillance 1. Reported in a) Kedah b) Terengganu 2. Clinical Signs – erratic, exophthalmia or other abnormal clinical signs of the eye, inflamed at ventral region 3. Pathogen – *Streptococcus agalactiae* 4. Mortality rate - ± 40% 5. Economic loss – n/a 6. Geographic extent – in most floating cages, lakes and rivers 7. Laboratory confirmation – API 20E STREP 8. Publications : unpublished

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

Country: MYANMAR Period: October-December 2007

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	***	***	***		
2. Infectious haematopoietic necrosis	***	***	***		
3. Spring viraemia of carp	***	***	***		
4. Viral haemorrhagic septicaemia	***	***	***		
5. Epizootic ulcerative syndrome (EUS)	***	***	***		
6. Red seabream iridoviral disease	***	***	***		
7. Koi herpesvirus disease	***	***	***		
Non OIE-listed diseases					
8. Epitheliocystis	***	***	***		
9. Grouper iridoviral disease	***	***	***		
10. Viral encephalopathy and retinopathy	***	***	***		
11. Enteric septicaemia of catfish	***	***	***		
12. Bacterial kidney disease	***	***	***		
13. Infectious pancreatic necrosis	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*					
2. Infection with *Perkinsus olseni*					
3. Abalone viral mortality					
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*					
5. Infection with *Marteilioides chungmuensis*					
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	-	-	-		
2. White spot disease	-	-	+()	III	1
3. Yellowhead disease (YH virus, gill-associated virus)	***	***	***		
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)	***	***	***		
5. Infectious hypodermal and haematopoietic necrosis	-	+()	-	III	1
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	***	***	***		
Non OIE-listed diseases					
7. Infectious myonecrosis	***	***	***		
8. Baculoviral midgut gland necrosis	***	***	***		
9. White tail disease (MrNV and XSV)	***	***	***		
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					
1.Bacterial Disease	-	-	+()	I,II	2

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

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	A total of 78 samples of P.monodon have been tested at PCR lab of Department of Fisheries (DoF), of which 1 sample (1.28%) were recorded as WSSV and IHHNV positive.
2	Bacteria Disease Passive Surviellance 1. Reported in Taninthayee Division, Myelk District (Southern part of Myanmar) in December 2007. 2. Species affected-Grouper (*Epinephalus tauvina)* 3. Clinical signs-hemorrhage appear at fins, operculum and anus. Lesion on the skin and muscles. 4. Pathogen-Vibriosis alginolyticus 5. Mortality rate-30% 6. Economic loss-Not reported 7. Geographic extent-Cge culture 8. Laboratory confirmation-Diagnosed by level I and level II 9. Publication-Unpublished 10. Suggestion-1. Feeding with Terramycin 7.5 mg in 1 kg feed for 5 days 2. Then, Terramycin 3.75 gm in 1 kg feed for another 5 days 3. Affected fishes are dipped for 10-15 minutes in fresh water 4. Minimised stress for handling 5. Used new cages or sterilized old cages for disease controlling

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

Country: NEPAL **Period: October-December 2007**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	***	***	***		
2. Infectious haematopoietic necrosis	***	***	***		
3. Spring viraemia of carp	***	***	***		
4. Viral haemorrhagic septicaemia	***	***	***		
5. Epizootic ulcerative syndrome (EUS)	-	+	+	II	1
6. Red seabream iridoviral disease	***	***	***		
7. Koi herpesvirus disease	***	***	***		
Non OIE-listed diseases					
8. Epitheliocystis	***	***	***		
9. Grouper iridoviral disease	***	***	***		
10. Viral encephalopathy and retinopathy	***	***	***		
11. Enteric septicaemia of catfish	***	***	***		
12. Bacterial kidney disease	***	***	***		
13. Infectious pancreatic necrosis	***	***	***		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Abalone viral mortality	0000	0000	0000		
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	0000	0000	0000		
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	0000	0000	0000		
3. Yellowhead disease (YH virus, gill-associated virus)	0000	0000	0000		
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)	0000	0000	0000		
5. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	0000	0000	0000		
Non OIE-listed diseases					
7. Infectious myonecrosis	0000	0000	0000		
8. Baculoviral midgut gland necrosis	0000	0000	0000		
9. White tail disease (MrNV and XSV)	0000	0000	0000		
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					

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

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	EUS suspected in Naini (*Cirrhinus mrigala*), rohu (*Labeo rohita*) and *Catla catla*. Many wounds on the body surface. 80% mortality reported by farmers. Farmers were suggested to apply calcium hydroxide @500 kg/ha. Samples sent to Central Animal Laboratory in Katmandu for histopathological examination

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

Country: PHILIPPINES Period: October-December 2007

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
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 (EUS)	-	-	-		
6. Red seabream iridoviral disease	0000	0000	0000		
7. Koi herpesvirus disease	0000	0000	0000		
Non OIE-listed diseases					
8. Epitheliocystis	0000	0000	0000		
9. Grouper iridoviral disease	0000	0000	0000		
10. Viral encephalopathy and retinopathy	-	-	-		
11. Enteric septicaemia of catfish	0000	0000	0000		
12. Bacterial kidney disease	0000	0000	0000		
13. Infectious pancreatic necrosis	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. Abalone viral mortality	0000	0000	0000		
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	0000	0000	0000		
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000	III	1
2. White spot disease	+	+	+	III	2
3. Yellowhead disease (YH virus, gill-associated virus)	-	-	-		
4. Spherical baculovirosis (*Penaeus monodon*-type	-	-	-		
5. Infectious hypodermal and haematopoietic necrosis	+	-	-	III	
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	0000	0000	0000		
Non OIE-listed diseases					
7. Infectious myonecrosis	0000	0000	0000	III	3
8. Baculoviral midgut gland necrosis	***	***	***		
9. White tail disease (MrNV and XSV)	0000	0000	0000		
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					

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

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	*P. vannanmei* post larvae, juvenile, broodstock (31 samples) from Luzon provinces (Zambales, Batangas, Pampanga) and Visayas provinces (Iloilo, Cebu, Bohol) examined by PCR test showed negative results for TSV. Examinations conducted by BFAR Fish Health laboratories
2	Out of 372 samples (255 *P. monodon*, 81 *P. vannamei*, of different stages and 36 crabs) examined, 82 samples (48 *P. monodon*, 30 *P. vannamei*, 4 crabs) showed positive results for WSV by PCR test. Examinations conducted by BFAR-Central and Regional Fish Health laboratories, NPPMCI and SEAFDEC-Fish Health laboratories
3	*P. vannamei* post larvae, juvenile, broodstock (31 samples) from Luzon provinces (Zambales, Batangas, Pampanga) and Visayas provinces (Iloilo, Cebu, Bohol) tested by PCR showed negative results for IMNV. Examinations conducted by BFAR Fish Health laboratories

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

Country: REPUBLIC OF KOREA Period: July-September 2007

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 (EUS)	0000	0000	0000		
6. Red seabream iridoviral disease	+	+	+	III	
7. Koi herpesvirus disease	(1998)	(1998)	(1998)	III	
Non OIE-listed diseases					
8. Epitheliocystis	0000	0000	0000		
9. Grouper iridoviral disease	0000	0000	0000		
10. Viral encephalopathy and retinopathy	+	+	+	III	
11. Enteric septicaemia of catfish	0000	0000	0000		
12. Bacterial kidney disease	0000	0000	0000		
13. Infectious pancreatic necrosis	+	+	+	III	
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000		
2. Infection with *Perkinsus olseni*	0000	0000	0000		
3. Abalone viral mortality	0000	0000	0000		
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	0000	0000	0000		
5. Infection with *Marteilioides chungmuensis*	+?	+?	+?	II and III	1
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	+?	+?	+?	III	
2. White spot disease	+	+	+	III	
3. Yellowhead disease (YH virus, gill-associated virus)	0000	0000	0000		
4. Spherical baculovirosis (*Penaeus monodon*-type	0000	0000	0000		
5. Infectious hypodermal and haematopoietic necrosis	***	***	***	III	
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	0000	0000	0000		
Non OIE-listed diseases					
7. Infectious myonecrosis	0000	0000	0000		
8. Baculoviral midgut gland necrosis	0000	0000	0000		
9. White tail disease (MrNV and XSV)	0000	0000	0000		
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					

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

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	We tested 60 samples of the Pacific oyster, Infected with *Marteilioides chungmuensis* were 3 samples. This pathogen is observation limited areas in Koseong, Gyeongsangnam-do.

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

Country: SINGAPORE Period: October-December 2007

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
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 (EUS)	0000	0000	0000		
6. Red seabream iridoviral disease	0000	0000	0000		
7. Koi herpesvirus disease	(2007)	(2007)	(2007)	III	1
Non OIE-listed diseases					
8. Epitheliocystis	-	-	-		
9. Grouper iridoviral disease	-	-	-		
10. Viral encephalopathy and retinopathy	(2007)	(2007)	(2007)		
11. Enteric septicaemia of catfish	0000	0000	0000		
12. Bacterial kidney disease	0000	0000	0000		
13. Infectious pancreatic necrosis	0000	0000	0000		
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	***	***	***		
2. Infection with *Perkinsus olseni*	***	***	***		
3. Abalone viral mortality	***	***	***		
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	***	***	***		
5. Infection with *Marteilioides chungmuensis*	***	***	***		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	***	***	***		
2. White spot disease	-	-	-		
3. Yellowhead disease (YH virus, gill-associated virus)	***	***	***		
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)	-	-	-		
5. Infectious hypodermal and haematopoietic necrosis	***	***	***		
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	***	***	***		
Non OIE-listed diseases					
7. Infectious myonecrosis	***	***	***		
8. Baculoviral midgut gland necrosis	***	***	***		
9. White tail disease (MrNV and XSV)	***	***	***		
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					
1. Mullet systemic iridoviral disease	-	-	-		

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

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	In this quarter, KHV was not detected in 15 batches of koi imported from Japan, under compulsory inspection and quarantine. Samples from 7 batches of koi under the Accredited Ornamental Fish Exporters Surveillance (AOFES) Scheme and voluntary submission of samples from 2 batches of koi tested negative for KHV. Of 105 batches of koi tested for KHV in 2007, 41 were from passive surveillance, 27 were from active surveillance and 37 were from compulsory quarantine of imported koi. 104 batches were tested KHV negative, while 1 batch from passive surveillance tested KHV positive by nested PCR. This had been reported earlier in the second quarter of this year and involved koi from a private collection. All affected and in-contact cyprinid and non-cyprinid species in this collection have since been culled.

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

Country: THAILAND Period: October-December 2007

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
OIE-listed diseases					
1. Epizootic haematopoietic necrosis	0000	0000	0000	III	
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 (EUS)	-	-	?	II	
6. Red seabream iridoviral disease	0000	0000	0000	III	
7. Koi herpesvirus disease	+	+	+	III	1
Non OIE-listed diseases					
8. Epitheliocystis	-	-	-	II	
9. Grouper iridoviral disease	-	-	-	III	
10. Viral encephalopathy and retinopathy	-	-	-	III	
11. Enteric septicaemia of catfish	0000	0000	0000	II	
12. Bacterial kidney disease	0000	0000	0000	II	
13. Infectious pancreatic necrosis	(1985)	(1985)	(1985)	III	
MOLLUSC DISEASES					
OIE-listed diseases					
1. Infection with *Bonamia exitiosa*	0000	0000	0000	II	
2. Infection with *Perkinsus olseni*	0000	0000	0000	II	
3. Abalone viral mortality	***	***	***	II	
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	0000	0000	0000	II	
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000	II	
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	+	+	-	III	2
2. White spot disease	+	+	-	III	3
3. Yellowhead disease (YH virus, gill-associated virus)	+	+	+	III	4
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)	-	-	-		
5. Infectious hypodermal and haematopoietic necrosis	+	+	+	III	5
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	***	***	***		
Non OIE-listed diseases					
7. Infectious myonecrosis	***	***	***		
8. Baculoviral midgut gland necrosis	***	***	***		
9. White tail disease (MrNV and XSV)	+	+	-	III	6
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	***	***	***		
ANY OTHER DISEASES OF IMPORTANCE					
1. Ranavirus	-	-	-	III	

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

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	Detections of the koi herpesvirus (KHV) genes used were a nested PCR which developed at the AAHRI, DOF. 24 koi farms/companies/hobbyists had been surveyed using nested PCR for this reporting period. 4 PCR positive results obtained. ¾ positive PCR results obtained from kois with disease clinical signs and the fish were destroyed. ¼ positive PCR results obtained from imported kois that had been quarantined in the approved quarantine house. These imported kois had no clinical signs. The quarantine period had extended and the fish were re-tested. The fish were finally released as no clinical signs and PCR negative.
2	A total of 834 shrimp PL samples had been tested at PCR Laboratories of the DOF before stocking in culture ponds under the health management and disease control strategies. 6 specimens or 0.7% recorded as RT-PCR positive or carrying TSV genes that advised to be destroyed.
3	A total of 1,221 shrimp PL samples had been tested at PCR Laboratories of the DOF before stocking in culture ponds under the health management and disease control strategies. 11 specimens or 0.9% recorded PCR positive or carrying SEMBV genes that advised to be destroyed.
4	A total of 350 shrimp PL samples had been tested at PCR Laboratories of the DOF before stocking in culture ponds under the health management and disease control strategies. 17 specimen or 4.9% recorded PCR positive or carrying YHV genes that advised to be destroyed.
5	A total of 983 shrimp PL samples had been tested at PCR Laboratories of the DOF before stocking in culture ponds under the health management and disease control strategies. 119 specimens or 12.1% recorded as PCR positive or carrying IHHNV genes that advised to be destroyed. The tested specimens did not show disease clinical signs and there was no outbreak due to IHHNV infection in the hatcheries.
6	6 prawn specimens from grow-out ponds in Central region had been monitored for MrNV and XSA and revealed RT-PCR negative during the sampling period. Monitoring at the hatchery level, 93 prawn brooders and 9 post larvae specimens were RT-PCR-tested for the present of both viral genes, MrNV and XSV. The RT-PCR results were 15/93 and 0/9 specimens showed RT-PCR positive, respectively. However no disease clinical signs in all brooders. Concepts in bio-security for disease prevention had been advised to hatchery owners, operators or farmers.

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

Country: VIETNAM **Period: October-December 2007**

Item	Disease status [a/]			Level of diagnosis	Epidemiological comment numbers
DISEASES PREVALENT IN THE REGION	Month				
FINFISH DISEASES	October	November	December		
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 (EUS)	+()	+()	+()	I, II	1
6. Red seabream iridoviral disease	0000	0000	0000		
7. Koi herpesvirus disease	0000	0000	0000		
Non OIE-listed diseases					
8. Epitheliocystis	0000	0000	0000		
9. Grouper iridoviral disease	0000	0000	0000		
10. Viral encephalopathy and retinopathy	0000	0000	0000		
11. Enteric septicaemia of catfish	+()	+()	+()	I, II	2
12. Bacterial kidney disease	0000	0000	0000		
13. Infectious pancreatic necrosis	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. Abalone viral mortality	0000	0000	0000		
Non OIE-listed diseases					
4. Infection with *Marteilia sydneyi*	0000	0000	0000		
5. Infection with *Marteilioides chungmuensis*	0000	0000	0000		
CRUSTACEAN DISEASES					
OIE-listed diseases					
1. Taura syndrome	0000	0000	0000		
2. White spot disease	+	+	+	I, II, III	3
3. Yellowhead disease (YH virus, gill-associated virus)	+	+	+	I, II, III	4
4. Spherical baculovirosis (*Penaeus monodon*-type	+	+	+	I, II, III	5
5. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000		
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	0000	0000	0000		
Non OIE-listed diseases					
7. Infectious myonecrosis	0000	0000	0000		
8. Baculoviral midgut gland necrosis	0000	0000	0000		
9. White tail disease (MrNV and XSV)	***	***	***		
UNKNOWN DISEASES OF A SERIOUS NATURE					
1. Akoya oyster disease	0000	0000	0000		
ANY OTHER DISEASES OF IMPORTANCE					
1. Swollen-syphon on *Babylonia areolata*	-	-	-	I	6
2. Lobster milky syndrome	+	+	+	I	7

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

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	- The disease occurred in catfish (*Pangasius micronema, Pangasius hypophthalmus*) cultured intensively in zones in the South (Soc Trang, Tien Giang, Hau Giang provinces); some freshwater fish cultured in zones in the North (Ha Tinh, Bac Giang provinces), Central province (Khanh Hoa) - Mortality rate: Low, scattered
2	- Infection occurred in catfish (*Pangasius micronema, Pangasius hypophthalmus*) - The disease scattered in 10-12/2007 in Soc Trang, Vinh Long, Đong Thap, Can Tho, Tien Giang, Ben Tre, Hau Giang provinces - Pathogen: *Edwardsiella ictaluri*
3	- Infection occurred in black tiger shrimp (*Penaeus monodon*), white-leg shrimp (*Penaeus vannamei*) - The disease occurred scatterly in Ho Chi Minh city and Ba Ria - Vung Tau, Binh Thuan, Long An, Tien Giang, Ca Mau, Bac Lieu, Soc Trang, Ben Tre, Khanh Hoa provinces - Pathogen: White Spot Syndrome Virus (WSSV)
4	- Infection occurred in black tiger shrimp (*Penaeus monodon*) - The disease scattered in Ho Chi Minh city and Ba Ria - Vung Tau, Ca Mau, Bac Lieu, Soc Trang, Tien Giang, Khanh Hoa provinces - Pathogen: Gill - Associated Virus (GAV)
5	- Infection occurred in Post-larvae of black tiger shrimp (*Penaeus monodon*) - Disease characteristic: Low growth - The disease occurred scrattely in Ho Chi Minh city and Ninh Binh, Ba Ria – Vung Tau, Ca Mau, Bac Lieu, Soc Trang, Tien Giang, Khanh Hoa, Binh Thuan provinces. - Pathogen: Monodon Baculovirus (MBV)

6	- Infection occurred in *Babylonia areolata* - Pathogen: unknown - Mortality rate: scattered to mass - The disease occurred in limited zones in Khanh Hoa province
7	- Infection occurred in lobsters (*Panulirus ornatus, P. homarus*) cultured in floating cages on the sea in the growing out stage - Pathogen: Rickettsia-like Bacteria - Disease characteristic: lobster have black gill, uncovered head, and milky – colored abdomen traces - The disease scattered in Binh Thuan, Ninh Thuan, Phu Yen, Khanh Hoa provinces. Mortality rate decreases in December 2007.

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

Diseases Listed by the OIE – Aquatic Animal Health Code 2007

The following diseases of fish are listed by the OIE: Article 1.2.3.1

1. Epizootic haematopoietic necrosis
2. Infectious haematopoietic necrosis
3. Spring viraemia of carp
4. Viral haemorrhagic septicaemia
5. Infectious salmon anaemia
6. Epizootic ulcerative syndrome
7. Gyrodactylosis (*Gyrodactylus salaris*)
8. Red sea bream iridoviral disease
9. Koi herpesvirus disease

The following diseases of molluscs are listed by the OIE: Article 1.2.3.2.

1. Infection with *Bonamia ostreae*
2. Infection with *Bonamia exitiosa*
3. Infection with *Marteilia refringens*
4. Infection with *Perkinsus marinus*
5. Infection with *Perkinsus olseni*
6. Infection with *Xenohaliotis californiensis*
7. Abalone viral mortality

The following diseases of crustaceans are listed by the OIE: Article 1.2.3.3.

1. Taura syndrome
2. White spot disease
3. Yellowhead disease
4. Tetrahedral baculovirosis (*Baculovirus penaei*)
5. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)
6. Infectious hypodermal and haematopoietic necrosis
7. Crayfish plague (*Aphanomyces astaci*)
8. White tail disease
9. Infectious myonecrosis
10. Necrotising hepatopancreatitis[1]
11. Hepatopancreatic parvovirus disease[1]
12. Mourilyan virus disease[1]

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[1] Listing of this disease is under study.

List of Diseases in the Asia-Pacific

Quarterly Aquatic Animal Disease Reports (Beginning 2007)

1. DISEASES PREVALENT IN THE REGION	
1.1 FINFISH DISEASES	
OIE-listed diseases	**Non OIE-listed diseases**
1. Epizootic haematopoietic necrosis	1.Epitheliocystis
2. Infectious haematopoietic necrosis	2.Grouper iridoviral disease
3. Spring viraemia of carp	3.Viral encephalopathy and retinopathy
4. Viral haemorrhagic septicaemia	4.Enteric septicaemia of catfish
5. Epizootic ulcerative syndrome	5.Bacterial kidney disease
6. Red seabream iridoviral disease	6.Infectious pancreatic necrosis
7. Infection with koi herpesvirus	
1.2 MOLLUSC DISEASES	
OIE-listed diseases	**Non OIE-listed diseases**
1. Infection with *Bonamia exitiosa*	1. Infection with *Marteilia sydneyi*
2. Infection with *Perkinsus olseni*	2. Infection with *Marteilioides chungmuensis*
3. Abalone viral mortality	
1.3 CRUSTACEAN DISEASES	
OIE-listed diseases	**Non OIE-listed diseases**
1. Taura syndrome	1. Infectious myonecrosis
2. White spot disease	2. Baculoviral midgut gland necrosis
3. Yellowhead disease (YH virus,gill-associated virus)	3.White tail disease (MrNV and XSV)
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)	
5. Infectious hypodermal and haematopoietic necrosis	
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	
1.4 UNKNOWN DISEASES OF A SERIOUS NATURE	
OIE-listed diseases	**Non OIE-listed diseases**
	1. Akoya oyster disease
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. Gyrodactylosis (*Gyrodactylus salaris*)	2. Piscirickettsiosis
2.2 Molluscs	
OIE-listed diseases	**Non OIE-listed diseases**
1. Infection with *Bonamia ostreae*	1. Infection with *Mikrocytos mackini*
2. Infection with *Marteilia refringens*	
3. Infection with *Perkinsus marinus*	
4. Infection with *Xenohaliotis californiensi*s	
2.3 Crustaceans	
OIE-listed diseases	**Non OIE-listed diseases**
1. Crayfish plague (*Aphanomyces astaci*)	1. Necrotising hepatopancreatitis

List of Diseases in the Asia-Pacific

Quarterly Aquatic Animal Disease Report (Beginning 2008)

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. Koi herpes virus disease	
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. Acute viral necrosis (in scallops)
3. Abalone viral mortality	
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 lobster syndrome
3. Yellowhead disease (YH virus,gill-associated virus)	
4. Spherical baculovirosis (*Penaeus monodon*-type baculovirus)	
5. Infectious hypodermal and haematopoietic necrosis	
6. Tetrahedral baculovirosis (*Baculovirus penaei*)	
7. Infectious myonecrosis	
8. White tail disease (MrNV)	
1.4 UNKNOWN DISEASES OF A SERIOUS NATURE	
OIE-listed diseases	**Non OIE-listed diseases**
	1. Akoya oyster disease
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. Gyrodactylosis (*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*	
4. Infection with *Xenohaliotis californiensis*	
2.3 Crustaceans	
OIE-listed diseases	**Non OIE-listed diseases**
1. Crayfish plague (*Aphanomyces astaci*)	

Recent Aquatic Animal Health Related Publications

Aquatic Animal Diseases Significant to Asia-Pacific: Identification Field Guide: NACA and the Australian Government Department of Agriculture, Fisheries and Forestry (DAFF) have recently produced this field guide to support aquatic animal health surveillance, early response and reporting in the region. The field guide drew extensively from the experiences and previous and ongoing research activities in health management in Australia and other countries in Asia and thus joins the growing body of practical knowledge published for Asia-Pacific aquaculture and fisheries. The regional field guide covers all diseases listed in the Quarterly Aquatic Animal Disease (QAAD) reporting system, which includes all OIE listed diseases plus diseases of regional concern. The field guide is available for free download at http://www.enaca.org/modules/news/article.php?storyid=1003

FAO. 2007. Aquaculture development 2. **Health management for the responsible movement of live aquatic animals**. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 2. Rome, FAO. 2007. 31p. Further information: Rohana.Subasinghe@fao.org

Color Atlas of Fish Histopathology, Volume 2 (2007) by Teruo Miyazaki. The only book on fish histopathology. Highly recommended for private library, institutional libraries, laboratories for studies and education on fish disease. The volume contains 13 RNA viruses, 16 DNA viruses, 7 fungal diseases and 50 parasitic diseases. Downloadable at URL http://briefcase.yahoo.co.jp/yappon1978. Further details from miyazaki@bio.mie-u.ac.jp

Diseases of Tilapia: Web-based publication from Intervet. Diseases of Tilapia: http://aqua.intervet.com/news/2005-11-16_-_Disease_Tilapia.asp; Streptococcosis in Tilapia: http://aqua.intervet.com/news/2006-06-20_-_Streptococcosis_in_Tilapia.asp; Columnaris in Tilapia: http://aqua.intervet.com/news/2006-12-01_-_Columaris_in_tilapia.asp; Parasitic Diseases of Tilapia: http://aqua.intervet.com/news/2007-06-01.asp

Arthur, J.R. & Te, B.Q. 2006. **Checklist of the parasites of fishes of Viet Nam**. FAO Fisheries Technical Paper No. 369/2. Rome, FAO. 133 pp.

OIE Aquatic Animal Health Code, 9th Edition, 2006 and OIE Manual of Diagnostic Tests for Aquatic Animals, 5th Edition, 2006 http://www.oie.int/eng/publicat/en_aqua.htm. The aim of the aquatic animal health code is to assure the sanitary safety of international trade in aquatic animals and their products. This is achieved through the detailing of health measures to be used by the competent authorities of importing and exporting countries to avoid the transfer of agents pathogenic for animals or humans, while avoiding unjustified sanitary barriers. The health measures in the aquatic animal health code (in the form of standards, guidelines and recommendations) have been formally adopted by the OIE international committee, the general assembly of all delegates of OIE Member Countries. The Aquatic Animal Health Code is available on http://www.oie.int/eng/normes/fcode/A_00003.htm. The book may be ordered from pub.sales@oie.int

Way Forward: Building capacity to combat impacts of aquatic invasive alien species and associated trans-boundary pathogens in ASEAN countries: NACA 2005. The Final report of the regional workshop, hosted by the Department of Fisheries, Government of Malaysia, on 12th-16th July 2004. Network of Aquaculture Centres in Asia-Pacific, Bangkok, Thailand. 358pp. www.enaca.org (free download)

Diseases in Asian Aquaculture V. 2005. Walker, P.J., R.G. Lester and M.G. Bondad-Reantaso (editors). Proceedings of the 5th Symposium on Diseases in Asian Aquaculture. Fish Health Section, Asian Fisheries Society, Manila. 635 pp. Contact: suppalak68@yahoo.com.

Aquaculture Biosecurity: Prevention, Control and Eradication of Aquatic Animal Disease. 2006. A. David Scarfe, Cheng-Sheng Lee and Patricia O'Bryen (editors). Blackwell Publishing. 182 pp.

Regional Workshop on Preparedness and Response to Aquatic Animal Health Emergencies in Asia, Jakarta, Indonesia, 21-23 September 2004. Subasinghe, RP. and JR Arthur (editors). FAO Fisheries Proceedings No. 4, Rome, FAO. 2005. 178p.

Responsible use of antibiotics in aquaculture. Hernandez Serrano, P. 2005. FAO Fisheries Technical Paper. No. 469. Rome, FAO. 2005. 97p.

Pathogen and ecological risk analysis for the introduction of blue shrimp, *Litopenaeus stylirostris*, from Brunei Darussalam to Fiji. Bondad-Reantaso, M.G., Lovell, E.R., Arthur, J.R., Hurwood, D. & Mather, P.B. 2005. Secretariat of the Pacific Community, New Caledonia. 80 pp.
http://www.spc.org.nc/aquaculture/site/publications/documents/Stylirostris_BruneiFiji.pdf

Pathogen and ecological risk analysis for the introduction of giant river prawn, *Macrobrachium rosenbergii* from Fiji to the Cooks Islands. Arthur, J.R., Hurwood, D., Lovell, E.R., Bondad-Reantaso, M.G., & Mather, P.B. 2005. Secretariat of the Pacific Community, New Caledonia.
http://www.biosecurity.govt.nz/files/pests-diseases/plants/risk/prawns-ra.pdf

Australian Aquatic Animal Disease Identification Field Guide: The second, revised edition – Aquatic Animal Diseases Significant to Australia: Identification Field Guide – has recently been released by Australia's Department of Agriculture, Fisheries and Forestry (DAFF). It is very informative and user friendly. The field guide can be downloaded from http://www.disease-watch.com. For further information and copies of the field guide, please contact Alistair Herfort at Alistair.Herfort@daff.gov.au. The field guide provides key field identification tips and differential diagnostic features for all the OIE listed diseases and therefore has considerable regional relevance. Dissemination of the information contained in the field guide to the right stakeholders could contribute significantly to improved surveillance and reporting in the region. DAFF has kindly provided NACA with copies of the field guide for wider dissemination in the region. Those interested to receive copies, please write to NACA at mohan@enaca.org

A Colour Atlas of Diseases of Yellowtail (Seriola) Fish: Written by Dr. Mark Sheppard, Canadian veterinarian, a new publication (in Japanese and originally in English) "A Colour Atlas of Diseases of Yellowtail (Seriola) Fish" is now available. A useful diagnostic field guide for fish farmers, fish health professionals, laboratory technicians and students, this book contains 30 pages of high resolution, detailed pathology photomicrographs of most commonly found diseases of yellowtail. More details can be found at http://oberon.ark.com/~svs/index_files/svsindexfile5.html

Histological Techniques for Marine Bivalve Molluscs and Crustaceans: A new publication by DW Howard, EJ Lewis, BJ Keller and CS Smith of the Cooperative Oxford Laboratory, Center for Coastal Environmental Health and Biomolecular Research, National Centers for Coastal Ocean Science, National Ocean Service, NOAA. This is an invaluable guide to histological techniques of shellfish, principally molluscs and crustaceans which every aquatic animal health researcher should have. Those interested to receive copies, please write to the Librarian, Ms Susie Hines at Susie.Hines@noaa.gov

OIE Handbook on Import Risk Analysis for Animals and Animal Products: Vol. I Introduction and qualitative risk analysis, 2004; Vol. II Quantitative risk analysis, 2004.
Volume I of this handbook introduces the concepts of import risk analysis and discusses qualitative risk analysis while Volume II addresses quantitative risk analysis. The key issues in the discipline are explained within the frameworks provided by the World Trade Organization Agreement on the Application of Sanitary and Phytosanitary Measures and the chapters in both *Codes* on risk analysis. The handbook will provide practical guidance to Veterinary Services confronted with the need to analyse the risks posed by imports, to ensure that stakeholders, risk analysts and decision-makers can be confident that the disease risks posed have been identified and can be managed effectively. The handbook will also be useful as a training aid to address the critical need for capacity building in this discipline.

Surveillance and Zoning for Aquatic Animal Diseases.
Subasinghe, R.P., McGladdery, S.E. and Hill, B.J. (eds.). FAO Fisheries Technical Paper. No. 451. Rome, FAO. 2004. 73p. This document contains the recommendations and conclusions of an Expert Consultation on Surveillance and Zoning for Aquatic Animal Diseases' jointly organized by FAO, the Federal Department of Fisheries and Oceans Canada (DFO-Canada) and OIE held in October 2002 at the FAO Headquarters in Rome, Italy. The objective of the consultation was to determine what surveillance options can best support scientifically valid zonation frameworks. Contact: Rohana.Subasinghe@fao.org

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New 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.

[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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Notes

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