行政院及所屬各機關出國報告

（出國類別：開會）

參加第二十三屆世界動物衛生組織亞太區域會議

會議報告

服務機關：國立中興大學
行政院農業委員會動植物防疫檢疫局

出國人　職稱：院　長
姓名：張天傑
職稱：科長
姓名：杜文珍

出國地區：法屬新喀里多尼亞

出國期間：九十二年十一月二十五日至二十八日

報告日期：九十二年十二月

系統辨識號：C09205430

行政院及所屬各機關出國報告提要

出國報告名稱：參加第二十三屆世界動物衛生組織亞太區域會議會議報告

頁數 180 含附件：□是□否

出國計畫主辦機關/聯絡人/電話

農委會動植物防疫檢疫局/周佳蓉/02-33432052

出國人員姓名/服務機關/單位/職稱/電話

張天傑/國立中興大學/獸醫學院/院長/04-22852653

杜文珍/農委會動植物防疫檢疫局/動物檢疫組/科長/02-23431484

出國類別：□1 考察 □2 進修 □3 研究 □4 實習 ■5 其他

出國期間：91 年 11 月 3 日至 91 年 11 月 10 日 出國地區：瑞士日內瓦

報告日期：92 年 1 月

分類號/目：F7/農產品檢疫及家畜保健

關鍵詞：世界貿易組織、食品衛生檢驗及動植物防疫檢疫

內容摘要：(二百至三百字)

世界動物衛生組織(OIE)共有 164 個會員國，是我國所參加的國際組織中會員國最多的國家的國際組織，我國善盡會員的責任並積極參與該組織的各項活動，頗受各會員國的肯定；在中國極力於國際社會打壓我國的國際發展空間的狀況下，我們更須謹慎戒懼，積極參與各項會議，對國際社會作出貢獻，始能獲得國際之肯定，突破中國對我之封鎖。

本次會議除了例行地報告了本區域內各國的重要動物疫情外，另討論了三個議題，分別是狂犬病、發生惡性動物傳染病時的屍體處理及水生動物疾病，故除有亞太區域的會員國與會外，尚有來自聯合國糧農組織、世界衛生組織、太平洋組織秘書處、OIE 總裁及亞太區域代表、東南亞口蹄疫小組及來自斐濟、法國、薩摩亞等國的專家與會。各議題經與會人員充分的討論，咸認為加強區域內動物衛生相關議題之合作與疫病訊息之透明化，為維護各國內與國際貿易安全的重要原則。

由於我國在國際上的處境艱難，對於有機會參加的國際組織應該積極參與。我們應加強與世界各國的溝通，由其是亞洲地區國家之間的關係應緊密建立。OIE 是世界貿易組織（WTO）所認定的三個國際標準訂定組織之一，OIE 所制

定的各項規範除與動物的防疫檢疫相關，更可能牽動貿易手段。由於人際關係的建立是在多次的見面與互動，因此，積極參與各項會議有其必要，而且透過對國際社會的貢獻，可以強固我國的國際地位並發揮適當影響力。但這些事情都不是一蹴可及，而是必須長期並有計畫地經營，建議政府將來於經費或資源的分配，應把類此參加國際會議及培訓相關人才，列為最優先的項目。。

摘要

世界動物衛生組織(OIE)共有 164 個會員國，是我國所參加的國際組織中會員國最多的國家的國際組織，我國善盡會員的責任並積極參與該組織的各項活動，頗受各會員國的肯定；在中國極力於國際社會打壓我國的國際發展空間的狀況下，我們更須謹慎戒懼，積極參與各項會議，對國際社會作出貢獻，始能獲得國際之肯定，突破中國對我之封鎖。

本次會議計有亞太區域的 16 個會員國（計 30 位人員）與會，其中以韓國代表團陣容最為盛大，共派出 7 位人員參加。本次會議除了例行地報告了本區域內各國的重要動物疫情外，另討論了三個議題，分別是狂犬病、發生惡性動物傳染病時的屍體處理及水生動物疾病，故尚有來自聯合國糧農組織（FAO）、世界衛生組織（WHO）及太平洋組織秘書處（SPC）的人員 6 位、專題演講 2 位、來自斐濟、法國、薩摩亞等觀察員計 21 位、OIE 總部包括總裁 Dr. Vallat 等計 4 人、OIE 亞太區域代表 Dr. Fujita、東南亞口蹄疫小組（SEAFMD）Dr. Edwards 等與會。各議題經與會人員充分的討論，咸認為加強區域內動物衛生相關議題之合作與疫病訊息之透明化，為維護各國內與國際貿易安全的重要原則。

由於我國在國際上的處境艱難，對於有機會參加的國際組織應該積極參與。我們應加強與世界各國的溝通，由其是亞洲地區國家之間的關係應緊密建立。OIE 是世界貿易組織（WTO）所認定的三個國際標準訂定組織之一，OIE 所制定的各項規範除與動物的防疫檢疫相關，更可能牽動貿易手段。由於人際關係的建立是在多次的見面與互動，因此，積極參與各項會議有其必要，而且透過對國際社會的貢獻，可以強固我國的國際地位並發揮適當影響力。但這些事情都不是一蹴可及，而是必須長期並有計畫地經營，建議政府將來於經費或資源的分配，應把類此參加國際會議及培訓相關人才，列為最優先的項目。

目　次

壹、緣起及目的

世界動物衛生組織(World Organization for Animal Health, 簡稱 OIE）共有 164 個會員國，是我國所參加的國際組織中會員國最多的國家的國際組織。而且參加此國際組織都屬於會員國，因此中國一直對我們的參加如鯁在喉，去之而後快。由於我國一向積極參與，頗受各會員國的肯定，因此在中國的虎視眈眈之下，我們更須謹慎戒懼，積極參與各項會議，對國際社會作出貢獻，始能獲得國際之肯定，突破中國對我之封鎖。

此外，由於 OIE 的各項決議與我國動植物產品的進出口有很大的關係，它牽涉到世界貿易組織（World Trade Organization, WTO）的各項食品衛生檢驗及動植物防疫檢疫措施（Sanitary and Phytosanitary, SPS）之談判規範，我們更應積極投入，發揮影響力，以維護我國在國際上的各項權利。

基於上述各項理由，此次為我等首次代表國家第一次參與此次的世界動物衛生組織亞洲及太平洋地區兩年召開一次的會議便更感責任重大，儘量與各國代表認識，並保持良好關係。

貳、行程及紀要

11 月 25 日星期二	8：30 am	註冊及資料分發
	9：00 am	開幕式
	10：00 am	休息，意見交流，互相認識
	10：30 am	推舉議事小組（大會主席，副主席，及引言主持人） 議定議程 推舉議程主席及技術項目與動物疫情項目之引言人
	11：00 am	各會員國於 2003 上半年之動物疫情
	12：00 pm	狂犬病(WHO 官員 Dr Mary Elizabeth Miranda 報告)
	12：30 pm	午餐（各自找地方午餐）
	2：00 pm	第一項技術項目： Dr Norman Willis 報告（前 OIE 執委會主席）爆發惡性傳染病時之動物屍體處理方式（包括化製）
	3：30 pm	休息，意見交流
	4：00 pm	第一項技術項目（繼續議程）
	5：30 pm	推薦書寫結論之小組（第一項及狂犬病方面）

	6：30 pm	新喀里多尼亞政府之歡迎晚宴
11 月 26 日星期三	9：00 am	第二項技術報告：水產動物疾病之現況（由澳洲水產動物疾病負責人 Dr Eva-Maria Bernoth 報告）
	10：30 am	休息，意見交流
	11：00 am	繼續進行第二項技術項目討論
	11：30 am	第四次防疫策略規畫(從 2005 至 2010 年)
	12：30 pm	午餐（指定小組準備第二項之結論）
	2：00 pm	相關國際組織及區域組織之報告
	2：45 pm	亞洲及大洋區 OIE 代表（Dr Teruhide Fujita）的工作報告
	3：15 pm	東南亞口蹄疫小組之工作報告（Dr John Edward）
	3：45 pm	休息，意見交流
	4：15 pm	第一、二及三項（狂犬病）議題結論之討論
	4：45 pm	越區傳染之疾病
	5：00 pm	GMOs（基因轉殖生物）及野生動物之控制

5：15 pm　第二十四屆亞洲區大會時間、地點及議程項目之討論

7：00 pm　OIE 大會晚宴

11 月 27 日星期四　牧場參訪活動（分為養蝦場及養鹿場兩組）

11 月 28 日星期五　9：00 am　大會會議記錄及結論建議報告之確認

10：30 am　休息，意見交流

11：00 am　閉幕式

由於新喀里多尼亞不是一個完整獨立的國家，是南太平洋地區的一個法屬自治區，因此在行程安排上確有相當的困難。旅行社人員聽都沒聽過的一個國家，要安排飛機行程都有困難，更何況是旅館。因此只好請旅行社安排飛機行程後，再自行依 OIE 所提供的資料上網預約旅館。由於飛努米亞的飛機少，不易安排，結果必須在 11 月 22 日就起程搭下午 6：20 的班機，於 11 月 23 日 10：20 am 抵達奧克蘭機場，再搭 13：05 之飛機，飛努米亞，於下午 2：00 抵達努米亞。

回程更是艱辛，雖然會議已於二十八日中午結束，但仍須待至 11 月 29 日始有班機 15：30 起飛，20:15 抵達奧克蘭機場。由於旅行社的疏失，所申請之簽證無法入境紐西蘭到過境旅館休息，只好在機場內過夜，直至 30 日早晨搭 10：30 am 之班機，於下午 17：00 抵達桃園機場。

這輩子出國那麼多趟，從未搭機那麼艱辛與落魄，為了四天的會議，確需耗上九天的時間，甚至流落到要在機場過夜，這次可說是個辛苦的行程。

參、會議過程

一、會議主席及代表的推選，都是推選那些語言表達能力佳，經常參加的資深代表，因此澳洲、紐西蘭、及菲律賓的代表自然成為這些影響會議的靈魂人物。而我與日本等國代表因原屬第一次參加，尚在觀摩階段，自然無緣成為大會的操盤手。

二、本次主要大會主持人是由地主國 New Caledonia 的獸醫主管 Dr. Desoutter 擔任。於開幕式時，除了由亞太區主席 Dr. Gardner Murray 致開幕詞外，另有 OIE 總裁 Dr. Vallat，及 New Caledonia 之農業部長致詞。

三、大會第一個項目主題是由 OIE 總部的 Dr. Vallat 報告亞洲區各國今年上半年的疫情，再由各國代表對其該國疫情作補充或說明。例如，太平洋區秘書處（Secretariat of the Pacific Community, SPC）代表便提到該區結核病的問題，而新幾內亞代表則提到該國調查到豬有旋毛蟲的問題，而因豬肉餵食鱷魚以致鱷魚也有旋毛蟲。類似這些疫情問題，都是我們應積極注意參考的。在此議題下，也討論到疫情透明度及前後一致性的問題，希望各國保持疫情的透明度。對於世界各國所報導的疫情可以隨時藉由網站得知。

四、在疫情項目下，大會請到菲律賓的 WHO 官員，Dr. Mary Elizabeth Miranda 來報告亞洲區狂犬病的疫情與防治現況。她報告了，世界上狂犬病發生的主要疫區是在南亞的印度、孟加拉、及巴基斯坦等國，而很多是小孩被狗咬，而且是咬在臉上，以致潛伏期短，不易防治。在疫情發生上，主要是因被狗咬而得到，而狗的疫苗每劑量只要 1.3 元美金，在人則大於 750 美元/劑量，因此最好是對狗作全面性的免疫注射，以防治狂犬病的發生，才是最佳的策略。目前仍有一些國家因為經濟的因素，仍在使用含有神經組織的疫苗於人身上，不但疫苗效果不佳，

且副作用大，是一大問題。這些國家如印度、巴基斯坦、尼泊爾、孟加拉及緬甸等。

五、在技術項目中，第一個要談到的是動物屍體的處理方法。在這部分請到了前 OIE 國際事務委員會的主席 Dr. Norman Willis 來報告。他談到了各種屍體的處理方法。屍體的處理，因方法的不同而有不同的處理結果。有成本的問題，病原是否完全消滅的問題，以及對環境衝擊的影響。其中特別須注意的問題是 Prion disease 的問題。這些狂牛症病原在許多加熱處理等過程中都難以將其消滅，因此對於處理可能存在這些病原的方式，便需更為重視，而成本必然增加。在對惡性傳染病發生所要面對屍體處理的問題，在發生之前便需予以擬定相關計畫，並進行演練。甚至必須先考量到一旦發生時的處理場所，必須先作好環境影響評估，教育民眾，以減少屆時可能發生的民眾抗爭行為。當然，最好的方式是減少可能發生的機會，與必須處理的數量。因此，平時便需隨時作疾病監測，快速處理，以減少大量爆發疾病的可能性才是根本之道。

六、第二個談到的技術項目是：水生動物疾病之現況。

這部份首先是由澳洲水產動物疾病部門的負責人，Dr. Eva-Maria Bernoth 報告。她在開會前已對亞洲各國發出問卷，經過統計的結果，發現亞洲區各國對水生動物疾病疫情的掌控有相當大的不一致性，有些是完全不明疫情，有些前後報告不一致。這些可能起因於有些國家的水生動物疾病而言，獸醫並非主管單位，而常常是水生動物與疾病的管理屬於不同的單位，造成疫情掌握發生問題。而且常因所要申報之疾病多而雜，因此常發生混淆的現象。因此，她目前正與 OIE 水生動物疾病小組研究將檢疫證明項目縮減，以有效掌握水生動物疾病之疫情。當然，疫情的透明度也是一件相當重要的事。OIE 總裁提供了 OIE 的政

策訊息，他說明了在 WTO SPS 協議下，各會員國對水生動物健康之投入的重要性。他認為本區域是世界水產品的最大製造者，但對 OIE 的參與卻較不活躍。他同意 Dr. Bernoth 所報告的，且說明將引進一個新的互動性的連結系統，以解決中央與各區域動物疫情差異性的問題。

七、第四次 OIE 策略規劃

亞太區主席 Dr. Gardner Murray 首先說明本階段的目的是在尋求各國代表是否能對第四次 OIE 策略規畫是否能提出意見。Dr. Vallat 說明了策略規畫的準備及採用過程，規畫目的主要是提出目標及訂定優先次序。紐西蘭代表建議，除了工作文件外，應有主要功能性的國家性的水產問題的解決，而且需要釐清 OIE 代表的責任，及促　各會員國建立必要的內部協調體系。馬來西亞代表則建議 OIE 應更進一步建立一個全球性疾病診斷與訓練體系。Dr. Vallat 在聽到各國代表的意見後，他作了以下的總結：

（一）功能體系的建立早已是 OIE 的主要重點。OIE 正尋求國際組織如 FAO 及 WHO 的協助，以取得會員國支持建立各類體系。

（二）區域代表的資源問題。

（三）次區域內的辦公室正在考慮。

（四）緊急防疫協助 － OIE 有一個急難救助基金，而任何一個會員國皆可以尋求此基金會的協助。

（五）若 OIE 會員國同意，可以將可追蹤體系之建立列入優先考慮。

（六）OIE 因資源有限所能作的遠小於其他的國際組織，但有時在某些議題上對於少數國家卻頗有幫助。

八、國際組織及區域組織之報告

（一）聯合國糧農組織（FAO）—由亞洲及大西洋區 FAO 辦公室的資深動物產品及健康的官員，Dr. Subash Morzaria 報告。他報告了 FAO 最近在此區域有關動物疾病及食品安全的活動。在教育訓練方面，Dr. Morzaria 提到了一些在此區所舉辦的訓練課程及研討會。例如：

1. 在 2003 年七月在曼谷清邁大學所舉辦的有關 WTO SPS 協議，食品安全，及風險分析課程。

2. 在曼谷清邁大學針對 BSE 風險分析及評估所辦的訓練課程，該課程還包括診斷方法的實地操作。

3. 在清邁大學也引進了一個新的獸醫公共衛生方面碩士課程，在技術方面乃引進柏林 Free 大學及澳洲大學獸醫學院教授群的技術。該課程的目的在建立此區域食品安全檢查的能力，初期將只接受東南亞國家的學生，在未來再開放給整個地區的國家。

4. 在 2003 年 10 月在泰國與 JICA 及 DLD 共同據辦一個為期一週有關越區傳染之動物疾病的流行病學訓練課程。

5. 在 2003 年 11 月舉辦了第二次的有關口蹄疫、牛瘟、牛肺疫及豬瘟的實驗室診斷訓練課程。

6. FAO 亦支持了東南亞四個會員國參加 2003 年 11 月在曼谷所舉辦的第十一屆世界獸醫實驗室診斷技術人員協會的研討會。

（二）太平洋組織秘書處的報告—是由設立於斐濟之太平洋組織秘書處（SPC）的動物健康顧問，Dr. Peter Saville 所報告。

他簡述了在這區域內的一些活動。

SPC 是一個為太平洋島嶼國家的一個政府間的服務性組織。它是一種非政治性的技術性服務機構，具有顧問的性質。在會員國的請求

下，可提供太平洋地區 22 個政府或國家有關技術諮詢、訓練、及協助，並發佈社會及文化領域之各項訊息。總計而言，22 個國家含有七佰萬人口，居住於 3 萬個島嶼上，分佈面積有三仟萬平方公里的面積，但土地面積僅占不到 2 % 。SPC 的代表注意到此區國家的專業能力的日益減少是一大隱憂。雖然獸醫師人數稍有增加，但僅 12 個國家擁有一個合格獸醫師。能力的降低乃因人們鼓勵自由貿易及觀光的增加所造成的非法進口。Dr. Saville 最後結論，為了強化進口風險分析及檢疫決策之訂定，SPC 與 OIE 合作開發了一套 PAHIS，亦即是太平洋區動物衛生資訊系統，以提供 SPC 會員國（以 CD Rom 方式），也可提供給 OIE 會員國。我們也在現場拿了一片。

（三）世界衛生組織—由 WHO 設立馬尼拉的區域辦公室的醫藥官員 Dr. Mary Elisabrh Miranda 報告 WHO 在亞洲及西太平洋地區所作的狂犬病防治計畫的近況。另外亦包括了其他人畜共通疾病防治的活動，如對存在於本區人畜共通疾病爆發的準備與反應計畫，參與 FAO/OIE/WHO 聯合調查發生於中國的 SARS 的動物起源，及主動參與引起人類禍害之化學及生物藥品的使用的各項活動工作。

（四）OIE 亞洲區區域代表之工作報告—由亞洲及太平洋區之 OIE 區域代表，Dr. Teruhide Fujita，報告 2003 年以來的相關活動。該辦公室是由 OIE/日本所設的信託基金計畫所支持。主要計畫包括：（1）動物健康資訊系統的改進（2）支持口蹄疫的防治（3）預防及控制新浮現之疾病（4）狂犬病的預防與控制（5）獸藥使用之控制方法及技術的標準化的協調（6）水生動物疾病的資訊系統。

（五）亞洲區口蹄疫工作小組由澳洲的 AUSAID 支助，成立稱為東南亞口蹄疫防疫計畫（SEAFMDC），由澳洲代表 Dr. Gardner Murray 主持，由 Dr. John Edwards 負責協調工作。參與者為東南亞國協（ASEAN）

的八個國家，計有柬埔寨、印尼、寮國、馬來西亞、緬甸、菲律賓、泰國、及越南。由 Dr. Edwards 提出工作報告。

（六）全球架構下的越區傳染性動物疾病（GF-TADs）的區域性諮詢報告。本報告是由 FAO 的 Dr. Subhash Morzaria 與 Dr. John Edwards（OIE）共同準備，而由 Dr. Morzaria 所報告。GF-TADs 的目標是在維護世界畜產事業的安全，使免於傳染性疾病的攻擊。對於 TADs 的成功控制將可強化全球食品安全，使開發中國家增加收入，改進貧窮畜養戶的生活，以及保障地區及世界性動物及畜產品貿易的安全。優先考慮的疾病包括狂犬病及狂牛病。GF-TADs 主要在建立全球疾病通報系統，強化發展中國家的獸醫服務。

九、 遺傳工程生物體（GMO）及野生動物之控制

澳洲代表 Dr. Jill Mortier 報告了研擬使用特定 GMOs 於野生動物控制的國際標準方面的報告。人們擔心 GMO 可能散布到其他國家。在西班牙，利用一種改變的 myxomavirus 於散布保護性免疫，以對抗兔出血病及 myxomatosis，而這些疾病則正好被用於澳洲來控制野兔的數量。在澳洲，正在開發一種改良式 myxomavirus，用以散布免疫性節育於母兔身上。這兩個國家利用同一種病毒的不同 GMO 於不同用途，若相互散布至該國，則可能產生嚴重後果。因此希望藉由 OIE 來設定標準。

十、 第二十四屆 OIE 亞洲區會議的日期、地點、與議題的討論。主席問代表們，有那一國願意負責第二十四屆的會議，結果韓國代表願意。本來我國也願表達意願，但因據聞，大會已私下與韓國接洽過，而我國在 1999 年才主持過，故不便將之搶過來主辦。因此，下次的會議預定將由韓國在 2005 年的 11 月主辦。全體代表一致鼓掌表示同意。其議程將在 2004 年 5 月的 OIE 國際委員會議中討論。

十一、牧場參訪

新喀里多尼亞農業收入主要為輸出牛肉、鹿肉及蝦，最大市場為歐盟（特別是法國）及日本；有趣的是因進口價格便宜，當地市售的牛肉及鹿肉多由紐西蘭進口，而自產的牛肉及鹿肉則以較高的價錢輸銷至國外。本次會議的牧場參訪行程共分兩個地方，一個是養蝦場，一個是養牛及養鹿場。為了達到收集完整資訊的目的，我與杜科長分別參訪不同地方。我負責參訪養蝦場，而杜科長則負責參訪養鹿場。

（一） 養蝦場參訪記

參訪養蝦場這一隊人數較少。經過坐了一個多鐘頭的車，終於到達一個養牛場，原來養牛場的老闆也是養蝦場的老闆，他是在養牛賺錢之後再投資養蝦場。先在他的牛場看了一下他的肉牛後，才到養蝦場。他引導我們看他的養蝦場，原來只是拿種蝦來養。而養蝦是以天然海岸挖了養蝦池後，再於漲潮時引入海水，若要清池，則只需在退潮時挖個洞將海水漏掉即可，根本不用水泥牆，成本非常低，可說得天獨厚。是以所有養蝦場全部在南邊的沙岸。看完後再去種蝦場，老闆還示範人工授精。種蝦場看完後，便到政府設立的養蝦研究工作站。在此，工作人員對我們作了更詳細的說明，使我們有更清楚的輪廓。當地沒什麼重要的病毒性疾病，只有 Vibrio 之細菌性疾病，也只在緊迫時才發生。總年產量約 5,000 噸，大部分外銷至法國、日本及澳洲。內銷市場只有 450 噸。

（二） 養鹿場參訪記

這組的田間參訪共安排了兩個參訪點，一是其政府研究單位 Institut Agronomique néo-Calédonia (IAC) Port-Laguerre，一是養鹿場 La Foa。新喀里多尼亞的牛隻在養頭數計約 110,000 頭，以

Charolais 為主要品系，不輸入活牛，只購入精液， 95%的精液源自法國；明年計畫進行有關胚移植的相關試驗研究。IAC 是一個畜產研究單位，該單位針對市場需求進行選種及改良，並提供診斷服務。當地牛隻主要的疫病僅有鉤端螺旋體病、牛傳染性鼻氣管炎（IBR）及牛病毒性下痢（BVD）三種，惟 IAC 所內的牛隻並未發生過 IBR 或 BVD。壁蝨的控制是現場管理預到較棘手的問題，惟並未曾發生因壁蝨媒介而發生的疫病，目前該場每個月對牛群進行噴灑藥劑除蟲一次。

新喀里多尼亞的鹿隻在養頭數計約 120,000 頭，主要品系為源於印尼的 Rusa deer，每年屠宰頭數約 8,000 至 10,000 頭。參訪的鹿場飼養約 2,000 頭鹿，鹿隻是以放牧的方式圈棲於當地的丘陵，鹿肉主要供外銷，其內臟則賣給紐西蘭或澳大利亞的寵物工廠（當地沒有寵物製造工廠，亦少食用鹿隻內臟）、鹿皮未利用（當地沒有皮革工廠）、亦不採收鹿茸（因飼養方式、鹿隻易收驚嚇且工資昂貴）。

十二、最後一天的議程（十一月二十八日）主要在確認前兩天會議的記錄。工作人員在短時間內把前兩天（二十五日、二十六日）的會議記錄印出來，所有與會代表於看過記錄後，主席逐一與代表核對後，確定會議記錄。這些結果也將於 OIE 網站上公布。

肆、感想

一、 身為國家代表，在會議當中便需隨時注意維護我國之權益，而且必須謹慎發言，因此頗感壓力。

二、 第一次到南太平洋的島嶼地區，感受南國風情另有一種不同的感覺。對於當地各項服務的遲緩而沒有效率，讓我們覺得我國真的很有進步。而當地的物價之高簡直嚇死人，足足有我國的三倍以上，真不知如何去談國際競爭力。

三、 新喀里多尼亞由於受到法國的照顧，沒有戰爭的威脅，又有天然的觀光資源，可說得天獨厚。再看中國口口聲聲說是同一國家，不但不予支持，且在國際上處處打壓，對我們的感情都不如沒有血緣關係的美國與日本，真是情何以堪。

四、 參加國際會議，語言與對人的親和力相當重要。此次防檢局派杜文珍科長一齊與會，真的是找對人。即便是第一次與人面談，她也是侃侃而談，落落大方，比我還放的開，對我的外交工作幫助頗大。

五、 由於在開會中，各國代表常順便關切該國出口畜產品到我國的問題，此時負責檢疫的杜科長剛好可以回答相關問題，頗得他國代表的好感。

六、 由於國際組織相當重視疫情的透明度，OIE 相當重視疫情的報告，此次會議再次強調，尤其是水產動物疾病的疫情調查更將是 OIE 未來重視的項目。中國的疫情透明度很差是眾所週知的，因此各國代表對於中國頗有微詞，而這次中國亦未派代表參加。

七、 今年五月的 OIE 大會已由全體會員國一致通過，若中國接受相關決議，我國始考慮採用大會之建議名稱，改為與 WTO 相同的名稱「台

澎金馬 TPKM」。但中國仍有意見，OIE 總裁 Dr Vallat 對中共之態度頗不以為然。此時，正是我國積極爭取各國認同與支持的機會。

八、 此次大會請到 WHO 的官員來報告世界上有關狂犬病之疫情及防治問題，在狂犬病之疫情上還標示我國是有狂犬病疫情的國家，我立刻予以糾正，而該官員也知道，但藉口說因程式設定我國屬於中國的一部分，所以亦列為疫區。中國對我國的居心叵測可見一般。

九、 此次會議，雖說是亞洲區會議，但仍有法國與美國代表參加，可見此二大國之企圖心。

伍、建議

一、 由於我國在國際上的處境艱難，對於有機會參加的國際組織應該積極參與。我們應加強與世界各國的溝通，尤其是亞洲地區國家之間的關係應緊密建立。由於人際關係的建立是在多次的見面與互動。因此，積極參與各項會議有其必要，而且可以發揮影響力。

二、 國際會議的參加，語言能力相當重要，因此國內相關人員必須平常就加強訓練語言能力，以免屆時無法發言及與人互動，失去參與會議的目的。

三、 參加會議多派人員，不但可以發揮影響力，且可培育人才。此次就有一些國家派出三位以上人員參加，特別是韓國代表團本次共計有七個人出席，可以顯其對亞洲區域會議的重視，與其企圖積極參與的決心。

四、 國際參與不但需要多參與會議，而且也應積極做些貢獻，以贏得國際社會的肯定。譬如，澳洲便資助 OIE 在東南亞設立一個「東南亞口蹄疫防疫組織(SEAFMDC)」，以協助東南亞國家進行口蹄疫防治及撲滅工作。有鑑於我國控制口蹄疫的經驗值得與其他國家分享，經與 Dr. Edwards 表示上述意願，該組織在此次會議中已答應於後續辦理的相關會議中將邀請我國為該組織的觀察員。

圖一　會場一隅 (Dr Tanaka 美國代表 and Dr Tuntasuvan 泰國代表)

圖二　意見交流（Coffee break, with Dr. Vallat, OIE 總裁）

圖三　意見交流（Coffee break, with Dr Kang 韓國代表）

圖四　臨別留念（Group photo）

陸、附件

一、議程資料 Working Document

二、補充資料

（一） 第四次 OIE 策略規劃 4th OIE Strategic Plan 2005-2010

（二） 亞太區域牛海綿狀腦病 -- 給公眾、畜主、技術人員或官員等對象之簡介及訊息參考 BSE in the Asian Pacific Region
Information for the Public Sector
Information for the Farmers
Information for the Technical Personnel
Information for the Policy Makers

（三） OIE 東京局最近的活動 Recent activities of the OIE Regional Representation in Tokyo

（四） 牛海綿狀腦病風險評估區域研討會 OIE/FAO-APHCA/DLD Regional Workshop on BSE Risk Analysis

（五） 東南亞口蹄疫計畫
Evaluation of South-East Asia Foot and Mouth Disease Campaign (SEAFMDC)
The Southeast Asia Foot and Mouth Disease Campaign / Report to OIE Regional Commission for Asia, the Far East and Oceania

（六） 區域內有關越區動物疾病之諮詢與進展 Progress with the Regional Consultations on the Global Framework on Transboundary Animal Diseases (GF-TADS)

（七） 有關 GMO 與野生動物之報告內容

三、與會人員名單 List of Participants

四、會議報告草案 Draft Final Report

五、建議草案一 Recommendation No. 1

六、建議草案二 Recommendation No. 2

七、建議草案三 Recommendation No. 3

23rd Conference

of the

OIE Regional Commission for Asia, the Far East and Oceania

Noumea (New Caledonia), 25-28 November 2003

WORKING DOCUMENT

OFFICE INTERNATIONAL DES EPIZOOTIES
Organisation mondiale de la santé animale - World organisation for animal health - Organización mundial de sanidad animal
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23rd Conference of the OIE Regional Commission for Asia, the Far East and Oceania

Noumea (New Caledonia), 25-28 November 2003

23rd Conference of the
OIE Regional Commission for Asia, the Far East and Oceania
Noumea (New Caledonia), 25-28 November 2003

Provisional Agenda

I. Animal carcass disposal methods (including rendering) in animal disease outbreaks

II. Update on developments in aquatic animal diseases

III. Animal health status of Member Countries for the first semester of 2003

IV. Other matters

Presentations by international or regional organisations

Activities of the OIE Regional Representation for Asia and the Pacific

Activities of the Foot and Mouth Disease Sub-Commission

Rabies

Miscellaneous presentations

Date, venue and agenda items for the 24th Conference of the OIE Regional Commission for Asia, the Far East and Oceania

23rd Conference
of the OIE Regional Commission for Asia, the Far East and Oceania
Noumea (New Caledonia), 25-28 November 2003

Provisional Timetable

Tuesday 25 November 2003

8.30 am - Registration and distribution of documents

9.00 am - Opening Ceremony

10.00 am - Break

10.30 am - Election of the Conference Committee (Chairman, Vice-Chairman and Rapporteur General)
- Adoption of the Agenda and Timetable
- Election of Session Chairmen and Rapporteurs for Technical Items and Animal Health Status

11.00 am - **Animal health status of Member Countries during the first semester of 2003**

12.00 pm - Rabies

12.30 pm - Lunch

2.00 pm - Technical Item I: **Animal carcass disposal methods (including rendering) in animal disease outbreaks** (Norman Willis)

3.30 pm - Break

4.00 pm - **Technical Item I** (continued)

5.30 pm - (Preparation of recommendations for Item 1 and for Rabies by designated small groups)

7.00 pm - Reception given by the Government of New Caledonia

Wednesday 26 November 2003

9.00 am - Technical Item II: **Update on developments in aquatic animal diseases** (Eva-Maria Bernoth)

10.30 am - Break

11.00 am - **Technical Item II** (continued)

12.30 pm - Lunch
- Preparation of recommendation for Item II by designated small group

2.00 pm - Presentations by international and regional organisations

2.45 pm - Activities of the OIE Regional Representation for Asia and the Pacific

3.15 pm - Activities of the Foot and Mouth Disease Sub-Commission

3.45 pm - Break

4.15 pm - Discussion of Recommendations Nos 1, 2 and 3 (rabies)

4.45 pm - Miscellaneous presentations

5.15 pm - Date, venue and agenda items for the 24th Conference of the OIE Regional Commission for Asia, the Far East and Oceania

7.00 pm - Reception given by the OIE

Thursday 27 November 2003

Field trip

Friday 28 November 2003

9.00 am - Adoption of the draft Final Report and Recommendations

10.30 am - Break

11.00 am - Closing Ceremony

ANIMAL CARCASS DISPOSAL

Norman G. Willis

Past President of the OIE International Committee
Ottawa, Ontario, Canada

Original: English

Summary: *The stamping-out approach, which is traditionally the most common and successful method of disease eradication, requires technology for animal carcass disposal as an integral component. Some general principles for choosing a disposal option are enunciated as factors for consideration, however primary consideration must be given to disease control and eradication.*

A summary of currently available technologies for animal carcass disposal is presented as a hierarchy based on their reliability for pathogen inactivation. The technologies listed include: rendering, incineration, pyre-burning, composting, mass burial or open-pit burial, licensed commercial landfill, mounding, fermentation, and examples of technologies under development. As well a special consideration for the disposal of prion disease infected carcasses is discussed, where rendering, incineration, and alkaline hydrolysis are the preferred technologies.

However, there is a growing trend in society to reject the excessive waste of valuable animal products, the negative environmental and animal welfare outcomes, and the devastating economic impacts on agricultural industries as well as on national economies. This is creating pressure for alternatives to mass animal slaughter and carcass disposal, and ultimately for a philosophical change in the approach to animal disease control, depopulation, and animal carcass disposal.

A questionnaire sent to Member Countries of the region yielded 15 responses. The survey sought to create a broad picture of the factors involved in animal carcass disposal in the region.

Considering the numbers of various species of animals raised in the Member Countries as well as the degree of intensive husbandry for each, it was concluded that there are foci of intensive numbers that warrant special attention for risk management.

Complexity of jurisdiction and regulations does exist in some countries. This should be rationalized in advance of a disease outbreak to insure a direct line of authority is clearly understood by all.

In consideration of pre-outbreak activities, a significant number of Member Countries offer an opportunity to enhance technical and financial preparedness. Additionally, some attention could be focused on strengthening partnerships while still in the pre-outbreak phase. The degree of preparedness of staff and policies can be assessed and improved during simulation exercises.

From a different perspective the social factors related to disposal are discussed, especially the negative public reaction to mass slaughter and highly visible methods of carcass disposal.

Finally, the technologies available and chosen by Member Countries were evaluated. This led to the suggestion that further attention on environmentally responsible technology would be desirable and especially so if this was mobile technology.

1. INTRODUCTION

When faced with a major animal disease outbreak, along with the need for immediate disease containment, comes a very significant question that requires an urgent decision. This question relates to the method for handling potentially large numbers of carcasses. If stamping out, the most common and successful approach to disease eradication is chosen, then the method of animal carcass disposal for slaughtered animals must also be decided.

Decision making requires an evaluation of a number of operative parameters within a broad range of disciplines. Examples of these parameters include:

- impact on the environment
- the intensity of livestock production and the potential number of animals involved
- the impact on trade and the economic implications
- animal welfare considerations
- the characteristics of the pathogenic organism
- disease control implications
- the impact on individual producers
- financial and logistical considerations
- the reaction of the public

Speed of decision making is critical at the time of such a crisis. To allow for the most appropriate decision, Veterinary Administrations are advised to carefully think through the options, in advance of the event to establish essential linkages, to pre-determine which options are possible for their particular areas, and to evaluate what this implementation would require. In this way, at the time of need, the best balanced choice can be made and implemented in the shortest possible time.

As well, this approach permits planning and scheduled investment in equipment in preparation for a disaster which inevitably will come.

There are, apart from disease outbreaks, many situations which also demand the same preparation. These situations can take advantage of the same planning strategy. These situations include natural disasters such as flooding or hurricanes which could produce a large number of carcasses, as well as animal contamination by toxic chemical spills, ingestion of contaminated feed, large fires, slaughter for animal welfare reasons such as starvation or humane culling, or deliberate bioterrorism.

If you consider for a moment the massive destruction and waste of such large scale slaughter, you come to the inevitable conclusion that there must be an alternative which will permit avoidance of this destruction while affecting the required disease control. Therefore the very best method of dealing with disposal of animal carcasses is to avoid the need to slaughter the animals.

To provide you with an example of the factors for consideration, we circulated the questionnaire with the intent of being able to evaluate and discuss the status of the region as a whole and to suggest possible areas for emphasis which could hopefully reduce any possible vulnerabilities.

To begin we can consider these factors as general principles, recognizing that primary consideration must be given to disease control and eradication as the most important aspect.

General Principles:

- speed is of the essence - the earlier the official intervention, the fewer the number of animals that will require disposal
- complete inactivation of the pathogenic agent must be insured
- an emergency management plan must be defined in advance and regularly communicated to all levels of the agricultural system
- all required legal authorities and links to involved industries must be established in advance

- the Veterinary Administrations must assume primary leadership of an animal disease outbreak
- Veterinary Administration action must precede uncontrolled animal movement based on unofficial rumours
- all potential consequences of an outbreak, especially financial consequence, should be assessed in advance to minimize the negative impact on involved industry sectors
- producers should be assisted to develop an economic understanding and compliance with the principles of disease control
- general broad zoning areas can be predetermined and defined in advance for immediate implementation to limit animal movement based on knowledge of normal trade routes of animal movement
- a system of traceability is required to allow immediate trace back of disease
- establish a list of pathogens with methods of transmission, zoonotic potential, environmental resistance, and susceptibility to disinfectants as well as disinfectant availability
- determine the availability of effective vaccines
- technical capabilities should be established at every step for animal slaughter, storage, and disposal including licensing for emergency situations
- environmental assessments should be conducted in advance for suitable burial sites
- an information policy should be established in advance to promote an understanding by the public of the approach taken and the rationale for it

2. AVAILABLE TECHNOLOGY

These technologies are presented as a hierarchy based on their reliability for pathogen inactivation.

2.1 Rendering

This is a closed system for mechanical and thermal treatment of animal tissues leading to stable, sterilized products, e.g animal fat and dried animal protein. It grinds the tissue and sterilizes it by heat under pressure. The technology exists in fixed facilities and is in normal usage. It produces an effective inactivation of all pathogens with the exception of prions where infectivity is reduced. A medium sized rendering plant could process 12 tonnes per hour of operation. The availability of the capacity should be determined in advance. Such plants can operate within environmental standards.

2.2 Incineration

This technology can be applied as:

- fixed, whole-carcass incineration
- mobile air curtain whole carcass incineration
- municipal incinerators
- co-incineration

Fixed whole carcass incineration occurs in an established facility in which whole carcasses or carcass portions can be completely burned and reduced to ash. This process is normally fuelled by natural gas. Effective inactivation of pathogens is produced. Without additional technology, the exhaust emissions are not subjected to environmental control. However these emissions can be subjected to air scrubbing procedures to meet environmental standards.

Mobile air curtain whole carcass incineration is a mobile system which can be taken on-site. Whole carcasses can be burned

and reduced to ash using wood as a fuel. Because it can be used on site, there is no requirement for transportation of the animal material. It also produces effective inactivation of pathogens and may actually achieve higher temperatures (1000°C).

Municipal incinerators are pre-established facilities which are normally used for the burning of household or industrial waste. Although they may not be currently licensed to burn carcasses, use of these facilities allows an expanded capacity for effective inactivation of pathogens.

Co-incineration is a process in which meat and bone meal, carcasses or parts of carcasses are burned in conjunction with other substances, e.g.:

- hazardous waste incineration
- clinical waste incineration
- other industrial incinerations such as:
    - power plants
    - cement kilns
    - blast furnaces
    - coke ovens

In practice meat and bone meal has been used as a secondary fuel on a large scale in cement kilns and power plants.

2.3 Pyre Burning

This is an open system of burning carcasses either on-farm or in collective sites fuelled by additional materials of high energy content. This is a well established procedure that can be conducted on site with no requirement for transportation of the input material. However, this process is contrary to environmental standards for air, water, and soil. It takes an extended period of time and has no verification of pathogen inactivation. In fact, there is a possibility of particulate transmission from incomplete combustion. Further, because the process is open to view, there is a negative reaction and lack of acceptance by the public.

2.4 Composting

This is a process of aerobic microbiological decomposition conducted in either open or closed systems. It preferably requires prior grinding of tissues and as well the addition of organic material for microbial maintenance. Additionally, mixing or aeration is required to assure homogeneous decomposition. This simple process, which can be conducted on site at low cost, can achieve temperatures of up to 70°C. It does however require a significantly extended period of time. Further it is necessary to insure a constant temperature throughout the material for the total time period and it is difficult to verify the effectiveness of pathogen inactivation.

2.5 Mass Burial or Open Farm Burial

This is a system to deposit whole carcasses below ground level and to be covered by soil, with no additional inactivation of pathogens. It is an established procedure which if conducted on site does not require transportation and is used to control the spread of disease. It does however require an environmental assessment because of the potential contamination of groundwater, or of aquifers if leachate is not controlled. Further, it does not inactivate all pathogenic agents.

2.6 Licensed Commercial Landfill

This process involves deposition of carcasses in predetermined and environmentally licensed commercial sites. Because the site has been previously licensed, all environmental impacts such as leachate management, gas management, engineered containment, flooding, and aquifers have already been considered. However, the area is open and uncovered for extended periods, there is a potential emission of aerosols, and there is resistance from the public to such an approach.

2.7 Mounding

This process is one of mass burial above ground and it has similar considerations to those of mass burial.

2.8 Fermentation

This process is a closed system of anaerobic microbiological decomposition which requires prior mechanical and thermal treatment and which results in the production of biogas. This process does not inactivate pathogens, but typically uses non-dried rendered product as the input material.

2.9 Technologies under Development

Alkaline Hydrolysis
Alkaline hydrolysis consists of treating carcasses or tissue in an aqueous alkaline solution at elevated temperatures under pressure. It converts proteins, nucleic acids, and lipids of all cells and tissues into a sterile aqueous solution of small peptides, amino acids, sugars, and soap. What remains are the mineral constituents of the bones and teeth. This process requires specialized equipment and operates at 150° C for three hours. It completely inactivates pathogens with the exception of prions where infectivity is reduced, and is environmentally responsible.

Biosphere Process
The biosphere process is a bio-refining technology which employs a biolytic hydrolyzer, operating under high temperature, steam pressure, and internal agitation in a sealed steel vessel. The process produces hydrolysis of protein and carbohydrate materials, fracturing long chain molecules and yielding sterile, high nutrient fertiliser as an output. It operates at 180° C under 12 atmospheres of pressure for a period of 40 minutes. It inactivates all pathogens and is environmentally sound. Inactivation of prions is still undetermined.

2.10 Special Considerations for Prion Diseases

One of the problems in demonstrating the effectiveness of the inactivation of prions is the lack of a simple, rapid and inexpensive test for the presence of the infective agent, especially at low concentrations. The ultimate test is bioassay in a sensitive detector species by an efficient route, but usually this is only relevant in research. Typically this is done using panels of mice bred to be susceptible to particular types of transmissible spongiform encephalopathies (TSEs). However it must be recognized that the mouse to cattle species barrier has been demonstrated to be 500, therefore affecting sensitivity.

Although rendering at 133° C and three bars of pressure for 20 minutes is a defined standard, reductions of infectivity by this technology are in the order of 1:200 - 1:1000. Commercial incinerators have an inactivation rate of one million fold, while burning on pyres has a reduction rate of 90%. (It should be noted that pyres are not suitable for sheep because of the wool and fat.) Alkaline hydrolysis produces a 3-4 log reduction in infectivity over a three hour period. Landfill and deep burial are suggested to have a reduction in infectivity of 98 - 99.8% over three years. Based on this information, rendering, incineration, and alkaline hydrolysis are the most reliable technologies at this time.

The significance of small amounts of infectivity become evident when you consider that experimentally it has been shown that exposure of sensitive species to as little as 1.0, 0.1 or even 0.01 grams of infected nervous tissue can induce infection.

Given all of the above, it must be recognized that no process has been demonstrated to be 100% effective in removing TSE infectivity and there will be some residual levels of infectivity remaining after treatment.

3. THOUGHTS ON ALTERNATIVES TO ANIMAL DISPOSAL

While addressing the current practicalities of animal disposal technology, it is perhaps also worth while to look ahead a bit and consider alternatives to the present approach of depopulation and animal carcass disposal.

The best method of animal disposal is to avoid the need to slaughter the animals permitting them to reach their potential in terms of the reasons for which they were bred. However, above all else, animal disease control must be achieved as a primary consideration.

Stamping out is deeply entrenched in the veterinary organizational culture. It is a tried and true approach that is advocated by the OIE for effective disease eradication. It has been used successfully in numerous animal disease outbreaks and is regarded as the standard.

On the other hand, trends are now developing which are introducing factors that are creating pressure for a philosophical

change in the approach to animal disease control and ultimately to depopulation and animal carcass disposal.

Such factors include:

- logistical factors - following the developing trend of larger farms with more animals on small geographic areas,
- economic factors - following globalization and international trade considerations in which disease control actions are often market driven,
- societal factors - creating pressures based on public perceptions and ethical issues, e.g. the trend may be for the public to become less tolerant of the potential for the waste of vast amounts of edible protein because of depopulation practices,
- animal welfare consideration - and the public's reaction to mass slaughter and carcass disposal,
- environmental factors - which force higher standards and more extensive environmental assessments to protect the status of the environment

A summary of the growing trend is that society is rejecting the excessive waste of valuable animal products, the negative environmental and animal welfare outcomes, and the devastating economic impacts on agricultural industries as well as on national economies.

Approaches that can be taken to address this include:

- prediction - to avoid disease occurrences by preemptive trend identification,
- prevention - of disease or minimization of any disease that occurs (vortex containment concept where the approach is to direct all movement towards the centre of an outbreak),
- speed of disease detection or control.

Ultimately what will be required is a complete paradigm shift in thinking to a new concept of disease control which incorporates these driving forces and trends into its essence.

4. SURVEY QUESTIONNAIRE

The survey results and observations are based on the fifteen returned questionnaires. While this may not be a truly accurate representation of the region, it does serve to create a broad picture of the region. It introduces ideas, factors and areas for discussion which can provide some guidance for ways to strengthen the preparedness of the region and to identify some specific areas of focus or vulnerability.

4.1 Background Information

This section seeks to probe areas of potential concern in terms of numbers of animals and intensification of livestock husbandry. These areas may warrant preemptive special consideration or may represent areas of increased vulnerability.

It is assumed that increased numbers equate to increased risk, and if one million is chosen as the unit of volume, the largest numbers of species are: cattle, sheep, swine, and birds.

With cattle, 13/15 countries are in the range of 1 - 97 million animals. Of these, five countries have in excess of 10 million animals.

With sheep, 7/15 countries are in the range of 1 - 91 million animals with three countries having more than 10 million animals.

With swine, 11/15 countries are in the range of 1 - 91 million animals with three countries having more than 10 million animals.

With birds 14/15 countries are in the range of 11 - 621 million birds with eight countries having more than 100 million birds.

In addition, five countries have 2-4 million buffaloes, four countries have 1 - 12 million goats, two countries have 2 - 5 million horses, one country has 2 million cervidae, and one country has 4 million rabbits.

These numbers point out the multiple areas where the destruction of high numbers of animals could result from disease outbreaks. Therefore, preparations to deal with these contingencies should focus particularly in these areas. This does not mean that slaughter and disposal of smaller numbers of animals is not important, but rather that it is a matter of scale for logistical purposes.

In the cattle species, 4/5 countries with the largest numbers of animals also have a significant proportion of intensively managed production.

There is only one country with large numbers of sheep that has 28% intensive production.
With the swine species, although 6/11 countries have a significant percentage of intensive husbandry, only three countries have both large numbers of animals and significant intensive husbandry.

With birds, 9/14 countries have a high percentage of intensive production, and of these six also have large numbers of birds.

For the one country with large numbers of cervidae, there is also a 100% intensive management.

Once again, the intent is to identify areas of greater potential for risk management. However with intensive management there may also be greater opportunities to mitigate the risk through enhanced biosecurity practices.

4.2 Regulation and Jurisdiction

The fundamental questions which must be answered are:

- Does the legal authority to take action exist?
- What is the complexity of the jurisdiction that must be coordinated?
- Is there a need to harmonize regulations or are there possible conflicts in the applications of regulations for animal carcass disposal or for environmental standards to be met? (Differences are less significant if they are transparent, while conflicting regulations must be rationalized in advance.)
- Has the complexity and time requirement for the approval of disposal sites been recognized (e.g. environmental assessments).

Only 4/15 countries have only one level of jurisdiction. Of these, three are federal which should provide clear authority, while one country has only municipal authority which would require being cognizant of differing rules.

Beyond this, four countries have two levels of jurisdiction, four countries have three levels of jurisdiction, and two countries have four levels of jurisdiction.

In this area, it would be necessary to rationalize the different levels of jurisdiction in advance of an outbreak to insure that there would be no time delays because of different perceived authorities. A direct train of authority should be clearly understood by all in advance of the need to implement it.

All but one country had legislation or regulations specifically related to the disposal of large numbers of animal carcasses. Five countries had only federal regulations which would appear to be the simplest procedure, while one country had only municipal regulations. Four countries had two levels of regulations, two countries had three levels of regulations and one country had four levels of regulations.

As with the mixed authorities, it must be recognized that multiple levels of regulations increase the complexity for taking clear, rapid, and decisive action. This therefore suggests that this complexity should be dealt with in advance of a disease outbreak. In this way, the resolution of differences in regulations can be negotiated clearly and fairly without the pressure

and urgency of addressing a disease occurrence at the same time. This can also serve to promote solid and productive partnerships.

In considering disposal sites, 9/15 countries have already achieved approval of disposal sites. Other countries may have already decided not to use disposal sites for multiple possible reasons. However, if any of these countries would consider using disposal sites in the future, the complexity and extended time requirement to obtain such an approval should be recognized. It warrants this effort in advance of an outbreak, particularly since in some circumstances, extensive environmental assessments may be required.

4.3 Pre-outbreak Activities

This section of the survey seeks to probe the degree of preparedness which the region enjoys prior to a significant disease event occurring, from the aspects of technical and financial preparedness, the pre-establishment of partnerships, and the active practice of simulation exercises.

Technical preparedness includes a predetermined decision process enunciated in a document, training of staff in the technical aspects of applicable technologies, and the development of instructional manuals. In 9/15 of the countries, ratings of 3 or greater were recorded in all three categories indicating acceptable to excellent preparation. However, there are other countries recording minimal preparation in these categories. This therefore presents an opportunity for sharing competence, and for assisting in training and development in these areas. This could perhaps be achieved under the coordination and guidance of the OIE Regional Representative. The benefit would be to reduce the vulnerability of the region as a whole.

Similarly in the area of financial preparedness, the factors of: a compensation mechanism to assist affected producers; access to emergency funding permitting rapid and effective action; and, access to an expanded human resource through agreements with private veterinarians, are considered critical to the success of the program. In 9/15 countries these preparations are considered acceptable to excellent. In other countries, organizational assistance would be beneficial as these factors are considered essential to success. To be effective, these factors must be considered, resolved, and in place prior to a disease occurrence.

In the category of pre-established partnerships, only two countries were rated as 3 or greater in all nine categories, while five more countries were 3 or greater in all but one or two categories. Established partnerships with industry were lower than expected with 8/15 countries as 3 (acceptable) or greater. A relationship with industry would seem essential to obtain compliance with animal health policies. Again established partnerships with the media or the public were only rated as 3 or greater in 8/15 countries. This relationship is encouraged to enhance the receptivity to future risk communications.

In some countries tourism is a very significant contributor to the national economy. And as well tourism can be adversely affected by animal disposal and emergency operations. Yet only one third of the countries had already worked out acceptable (3) or better relationships with the tourism industry.

It is suggested that partnerships, established in advance, can be a strong contributor to a successful animal disposal program. This region would appear to have opportunities to proactively advance the position of this area.

An excellent method to seek out deficiencies or gaps in the implementation of an emergency program, including animal disposal is the use of simulation exercises to test the degree of preparedness of staff and policies. This is an area where it is suggested that considerable gain could be realized in the region since only 6/15 countries had conducted such an exercise in the last two years. It is also an area where outside assistance and guidance could be very helpful and instructive, potentially reducing vulnerabilities in the region in a significant fashion.

4.4 Social Factors Related to Disposal

A quite different perspective on animal carcass disposal involves the reaction of the public to large disposal programs. In the last few years, in many countries there has been a growing negative reaction to mass slaughters and carcass disposal, especially with some highly visible approaches such as pyre burning. Indeed this reaction in some countries could even extend to the point of legal injunctions to prevent the slaughter and disposal of animals from proceeding.

Once again, since the speed of effective action is absolutely critical to success - legal action to prevent or delay the process could be disastrous. It therefore behooves all Veterinary Administrations to treat this aspect very seriously and to anticipate and if possible address such concerns in advance.

It is fortunate that this is well recognized in this region since there was unanimous concern expressed by all countries in the questionnaire.

The anticipated public reaction to the negative aspects of animal disposal in individual countries varies, but in general, the bulk of the responses rate this fairly high. Overall 9/15 countries anticipate a strong negative reaction from the public. As a modifier to this, six countries feel that this negative reaction will be less if it is well managed. A further complication was identified by three countries in that they anticipate a negative public reaction as a result of fundamental religious philosophies.

The comments of one country provide some guidance in that it was suggested that the public can accept approaches if they are well informed and are helped to understand the rationale and the benefits for the country of the proposed option. Risk communication is an extremely powerful yet delicate tool to achieve acceptance and support from the public.

4.5 Technology

In the region, the technologies that exist and are available for an emergency, are primarily burial, landfill, rendering, fixed incineration, and pyre burning. There are some exceptions to this but on a regional basis, they are more limited.

However, at the time of a disease emergency, the amount of technology that would be available beyond its normal usage is extremely limited. In fact, beyond burial and landfill, there would be very little extra technology available.

Further, if you consider the above list of technologies, all with the exception of rendering, have the potential to have significant environmental impacts. This leads to the recognition that the anticipated use of these approaches could carry an impending potential vulnerability if increasingly stringent environmental standards prevented their use.

As countries, in responding to the question of which elements you consider most important in making your choice of a disposal option, the responses were fairly consistent. Disease control was an obvious given since this is the primary requirement of any chosen option. All countries included this element. There was strong recognition (9/14 countries), that environmental impacts must be considered. This is interesting since most of the stated available technologies have the potential for environmental impacts. It does suggest that alternative environmentally responsible disposal options should be investigated. Included with disease control and environmental considerations were the elements of cost, technology availability, and public health in decreasing order of priority.

From the aspect of animal carcass disposal, transmissible spongiform encephalopathies (TSEs) present unique challenges. Most countries recognize this and 12/15 have a plan developed for TSE tissue or carcass disposal. Although five countries had incineration on their list of technologies to be used with TSE carcass disposal, the most commonly quoted options were burning and burial. Two countries either selected or included alkaline hydrolysis as a technology to be used. Given a basic principle of insuring pathogen inactivation during carcass disposal, and recognizing the unknown or limited prion inactivation of many technologies, it would suggest that the region should reconsider the choice and availability of disposal technology for prion contaminated tissue and animal carcasses.

Right now, should an outbreak situation occur in this region, it would be useful to recognize which technologies would be chosen. In response to this question the technologies most likely to be used in order of preference were: burial, burning, incineration, and landfill. Only four countries included rendering in their choice, and one country included composting. Once again burial and burning were at the top of the list. Should an environmental challenge be posed against these technologies, thought should be given to alternative technologies or approaches in the event that these technologies were blocked from use.

The method used to euthanise large numbers of animals prior to their disposal also requires due consideration. Factors which influence the choice of methods will include the species of livestock, the age of the animals, the logistics, the required facilities and the practicality, humane aspects, and the influence on the transmission of the pathogen. Particular attention must be paid to the euthanasia of young, unweaned animals.

This is also an area which may attract the attention of the media and the public. This should be expected and should warrant adequate preparation to respond to such challenges.

The OIE Working Group on Animal Welfare has included this topic in their future work plan and it can be anticipated that expert guidance and specific recommendations will be forthcoming.

In order to take advantage of the efficiencies associated with a central slaughter and disposal facility, there is a requirement for the capability of moving large numbers of live animals to a central location. In this regard 10/14 countries do have this capability.

It must also be recognized that to gain this potential for efficiency and access to more suitable technology, the pathogen must be contained and its transmission limited. Movement of live animals magnifies the chance of increased spread unless the infectious animals can be suitably and effectively contained. Even if slaughtered animals are transported, although the risk of transmission is reduced, the carcasses must be transported in leak proof and disinfectable vehicles. It should also be noted that four countries did not have this capacity of moving large numbers of live animals, and so could not avail themselves of central disposal facilities.

Lastly we sought to determine what was the availability of moving disposal technology to the site of the disease outbreak. The capability of pursuing the vortex containment philosophy would appear to be considerably limited in this region due to reduced availability of mobile disposal technologies. Only five countries had the capability to use mobile air curtain technology and two had limited mobile rendering capacity.

The best chance of limiting the number of animals infected or exposed and thus requiring slaughter, is to most strongly contain a disease outbreak in a defined and limited area. The vortex containment concept seeks to achieve this. However it depends on mobile slaughter and disposal technology. Other than the traditional burning and burial, the possibility of this would appear for now to be limited in this region.

5. CONCLUSIONS

After considering animal disposal from a very broad perspective, although there are many variables that cannot be resolved, there are a few conclusions which can be drawn from this examination. These include:

In the application of animal disease and eradication programs, stamping out with animal carcass disposal has and does perform an essential function.

Trends are developing which are beginning to challenge this approach and to require the development of alternative ways of achieving animal disease control and alternatives to animal disposal.

All presently available technologies have advantages and disadvantages with there being no one perfect technology.

Capacity is a critical factor since the number of carcasses for disposal may be excessive.

Prion diseases require special consideration for disposal.

This region, because of the numbers of animals in some areas does have foci of vulnerability.

Countries with multiple levels of jurisdiction and of regulations must insure all complexities are resolved prior to a disease outbreak.

There is an opportunity to assist some countries of the region with technical and financial preparedness.

An investment in developing and strengthening partnerships with other supporting organizations in advance of a disease outbreak would be warranted and beneficial.

The use of simulation exercises to test preparedness is encouraged and should be assisted.

The development of appropriate risk communication approaches or how to inform the public and help then to understand the rationale for actions is important to achieve acceptance and support from the public.

Consideration should be given to obtaining mobile, environmentally responsible disposal technology for the region.

Seeking ways to avoid the need to slaughter large numbers of animals is the best, most widely beneficial approach possible.

UPDATE ON DEVELOPMENTS IN AQUATIC ANIMAL DISEASES

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Summary: *Although the OIE's scope has covered aquatic animals for over forty years, national Delegates of many Member Countries do not seem to fully acknowledge their resulting responsibilities regarding, for example, aquatic animal disease reporting, neither do they use their power to influence the setting of international aquatic animal health standards through the OIE. This is of particular concern in the Asian region, where approximately 79% of the value and 88% of the volume of aquaculture produce originates.*

In January 2002, the then Fish Diseases Commission of the OIE (renamed Aquatic Animal Health Standards Commission in 2003) suggested to the OIE that aquatic animal health should be a technical item at the 23rd Conference of the OIE Regional Commission for Asia, the Far East and Oceania in 2003.

In preparation for this presentation, a questionnaire was prepared, asking for information in four areas. This report incorporates the responses returned from fourteen of the thirty Member Countries that received the questionnaire. It also draws upon findings of the OIE Aquatic Animals Commission and the Asia Regional Advisory Group on Aquatic Animal Health.

The main findings of the questionnaire are:

Aquaculture and animal health services
The value of livestock production exceeds the value of aquaculture production in ten of twelve Member Countries (in two Member Countries, aquaculture exceeds livestock), but the number of veterinarians servicing the livestock industries is disproportionately higher than the number of aquaculture veterinarians. Compared to a livestock veterinarian, an aquatic animal veterinarian is responsible for approximately 100 times the value of produce.
Aquaculture is predicted to grow in all fourteen Member Countries. In twelve of fourteen Member Countries, initiatives are being taken to ensure that growing aquaculture industries will be adequately serviced with aquatic animal health professionals (veterinarians or others) in the future. These initiatives range from farm level to government level; address infrastructure, education and legislative issues; and involve key stakeholders from governments, academia and the private sector in the process.
Each of the fourteen Member Countries predicts an increasing role for health professionals (veterinàrians and others) in their country, predominantly in the areas of animal health field services and extension activities; food safety; disease diagnosis; and teaching, but also in health certification and prescription and monîtoring of veterinary medicines (veterinarians) and policy development and aquatic animal welfare (non-veterinarians).
In thirteen of fourteen Member Countries, aquatic animal health is taught as part of the veterinary or other scientific curricula, and in eight of fourteen, it is taught to both veterinary and non-veterinary students.

Responsible authority
In seven of fourteen Member Countries, veterinary authorities are responsible for aquatic animal health and would be the lead agency for mounting the response to a major aquatic animal disease outbreak. In the other seven Member Countries, there is either sole or shared responsibility of the fisheries authorities who would take the lead in mounting an emergency aquatic animal disease response.

Disease reporting
Twelve of thirteen Member Countries provide information on the aquatic animal health status in their country through the Central Bureau's annual reporting system, and twelve of fourteen Member

Countries provide information through the regional OIE/NACA Quarterly Aquatic Animal Disease reporting initiative.
Whilst eleven of the twelve Member Countries participate in the OIE annual as well as quarterly aquatic animal disease reporting, there are gross inaccuracies and inconsistencies, including not reporting new disease occurrences that would be of major epidemiological significance to other countries in the region.

Cooperation with OIE.
Only three of thirteen Member Countries regularly provide comments to the OIE on draft texts for the Aquatic Code and the Aquatic Manual, and two of fourteen Member Countries visit the web pages of the Aquatic Animals Commission weekly, the remaining Member Countries report a frequency of monthly or less than once a month.

The findings of the questionnaire confirm the perception that the aquatic animal sector in the region is not as well provided with professional health services as the livestock sector. It appears that whilst aquaculture has been growing rapidly in many countries, there has been no matching expansion of a supporting aquatic animal health infrastructure. However, there is relatively good coverage of aquatic animal health at veterinary and non-veterinary undergraduate training, and most countries are taking additional steps to ensure that growing aquaculture industries will be adequately serviced with aquatic animal health professionals (veterinarians or others) in the future.

The findings of the questionnaire also confirm the previously noted inaccuracies and inconsistencies in aquatic animal disease reporting and the extremely low level of engagement with the OIE regarding draft texts for the Aquatic Code and the Aquatic Manual. Fundamental changes to the Aquatic Code and Aquatic Manual have been adopted in 2003. These include the listing of aquatic animal diseases and the requirements for reporting on the status of listed diseases. It is important that Member Countries fully understand these new arrangements and accept and fulfil their obligations on disease reporting.

In five of the seven Member Countries where responsibility rests either solely or partly with the fisheries authorities, contact between the fisheries and veterinary authorities is reported as 'less than once a month'. This is of concern, especially where the responsibility is shared. Acknowledging that veterinary authorities are usually well experienced in managing terrestrial animal emergency disease outbreaks and fisheries authorities are familiar with the aquatic environment, closer cooperation between the two agencies seems eminently sensible to benefit to the industries whose livelihood may be at stake in a major aquatic disease emergency.

The OIE continues to engage in regional aquatic animal health initiatives, together with FAO and NACA, but enhanced involvement of both veterinary and fisheries authorities within Member Countries is required to achieve the desired outcomes in areas such as improving Member Countries' knowledge of OIE standard-setting activities in the field of aquatic animal health and the transparency of epidemiological reporting.

1. INTRODUCTION

The OIE (the World Organisation for Animal Health; http://www.oie.int/) is an intergovernmental organisation, created in 1924, of currently 164 Member Countries. OIE's main objectives are:

- To guarantee the transparency of animal disease status world-wide;
- To collect, analyse and disseminate veterinary scientific information;
- To provide expertise and promote international solidarity for the control of animal diseases; and
- To guarantee the sanitary safety of world trade by developing sanitary rules for international trade in animals and animal products.

The Fish Diseases Commission was founded in 1960 as one of the OIE's specialist commission. The Commission's name was changed in 2003 to Aquatic Animal Health Standards Commission (in brief, Aquatic Animals Commission) to better reflect its scope that covers not just finfish but also molluscs and crustaceans (see item 4.1).

Although the OIE's scope has covered aquatic animals[1] for over forty years, national Delegates of many Member Countries seem to not fully acknowledge their resulting responsibilities regarding, for example, aquatic animal disease reporting, neither do they use their power to influence the setting of international aquatic animal health standards through the OIE. This is of particular concern in the Asian region, where approximately 79% of the value and 88% of the volume of aquaculture produce originates (FAO 2001).

In January 2002, the then Fish Diseases Commission suggested to the OIE that aquatic animal health should be a technical item at the 23rd Conference of the OIE Regional Commission for Asia, the Far East and Oceania in 2003. OIE's acceptance of this proposal demonstrates the importance OIE places on aquatic animal health.

For this presentation, a questionnaire was prepared, asking for information in four areas:

a) Aquaculture and animal health services;

b) Responsible authority;

c) Disease reporting; and

d) Cooperation with OIE.

The OIE Central Bureau circulated the questionnaire to thirty Member Countries in the region. By the closing date of 17 October 2003[2], fourteen Member Countries had returned a partly or completely filled in questionnaire. They are – in alphabetical order – Australia, Japan, Korea (Republic of), Malaysia, Myanmar, Nepal, New Caledonia, New Zealand, the Philippines, Russia, Sri Lanka, Taipei China, Thailand, and the United States of America. This report incorporates and discusses the responses to the questionnaire. Furthermore, it draws upon findings of the Aquatic Animals Commission and the Asia Regional Advisory Group on Aquatic Animal Health (see item 5).

The purpose of the report is, however, not merely to demonstrate problem areas and remind national Delegates of their obligations to the OIE. Rather, the report also outlines the opportunities Member Countries have in assisting the OIE to fulfil their mission to guarantee the sanitary safety of world trade in aquatic animals and their products.

2. FINDINGS AND EVALUATION OF THE QUESTIONNAIRE

2.1. Aquaculture and animal health services

[1] The OIE defines aquatic animals as: "live fish (including eggs and gametes), molluscs and crustaceans from aquaculture establishments or *aquatic animals* removed from the wild, for farming purposes or for release into the aquatic environment. The definition does not cover water-living amphibia, reptiles, birds or mammals."

[2] Six weeks after the deadline

Figures were collated on the US$ equivalent of the values of livestock and aquaculture animal production, respectively, and on the number of veterinarians[3] employed to provide animal health services to these two sectors. Based on the responses of ten Member Countries, the value of livestock production is between 2 and 162 times higher than the value of aquaculture production, however, there are between 6 and 800 times as many veterinarians employed. In two Member Countries, aquaculture production exceeds livestock production by factors 2 and 8, yet there are 868 and 95 times as many livestock veterinarians employed than aquatic animal health veterinarians.

Another way to compare the levels of service is to calculate the value of production that an individual veterinarian is looking after. For the livestock sector, one veterinarian services between just above US$ 1,000 and US$ 6 million worth of livestock, whilst in the aquatic sector, one veterinarian is responsible for between US$ 1 million and US$ 469 million worth of aquaculture produce.

All respondents think that aquaculture is a growing industry in their country, suggesting that demand for aquatic animal health services will increase in the future.

Whilst the data basis is too small for a statistical analysis, it can safely be concluded that:

→ The value of livestock production exceeds the value of aquaculture production in ten of twelve Member Countries (in two Member Countries, aquaculture exceeds livestock), but the number of veterinarians servicing the livestock industries is disproportionately higher than the number of aquaculture veterinarians.

→ Compared to a livestock veterinarian, an aquatic animal veterinarian is responsible for approximately 100 times the value of produce.

→ Aquaculture is predicted to grow in all fourteen Member Countries.

Acknowledging that the questionnaire may not be fully representative, the emerging picture is one of an aquatic animal sector in the region that is not as well provided with professional health services as the livestock sector. Surprisingly, five out of the fourteen responding Member Countries nevertheless judge that "aquaculture is currently adequately serviced with aquatic animal health professionals (veterinarians or others) in their country".

Twelve of the fourteen respondents indicate that steps that are being taken in their country to ensure that growing aquaculture industries will be adequately serviced with aquatic animal health professionals (veterinarians or others) in the future. Such steps include:

- Developing national aquatic animal health strategies and plans through multidisciplinary teams;
- Development of aquatic animal health policies and health regulations, including legislation to establish quarantine systems and enable fish farm inspections for disease control;
- Making 'fish diseases' a compulsory (rather than optional) subject as part of the undergraduate veterinary curriculum;
- Formalisation of postgraduate specialisation on aquatic animal health;
- More educational courses and technological training for aquatic animal health and aquaculture professionals;
- Official, expertise-based certification of Fish Health Inspectors and Fish Pathologists;
- Improving organisational structures;
- Strengthening laboratory capacity and capability, especially for diagnosis of diseases;
- Strengthening disease surveillance, including at the farm level and with the farmer's cooperation;
- Cooperation, for example on surveillance and monitoring, between government services, academia, research providers and industry; and
- Registration of all aquaculture establishments, and linking registered establishments into a network with professionals to exchange information, as well as enable access to consultation.

→ In two of fourteen Member Countries, initiatives are being taken to ensure that growing aquaculture industries will be adequately serviced with aquatic animal health professionals (veterinarians or others) in the future. These initiatives range from farm level to government level; address infrastructure, education and legislative issues; and involve key stakeholders from governments, academia and the private sector in the process.

[3] In some Member Countries, aquatic animal health services are provided by fisheries personnel instead of veterinarians. In these cases, the number of fisheries personnel has been used.

Each respondent specifies an increasing role for health professionals (veterinarians and others) in aquatic animal health in their country, as follows:

Area	Future activity for eterinarians	Future activity for other professionals	Totals
Animal health field services; extension activities	12*	10	22
Disease diagnosis (laboratory)	11	10	21
Teaching	12	9	21
Health certification	13	7	20
Policy development	9	11	20
Aquatic animal welfare	7	10	17
Food safety	11	11	22
Veterinary medicines (prescription; monitoring)	11	5	15

* = Number of Member Countries (out of fourteen) who ticked this box

➔ Each of the fourteen Member Countries predicts an increasing role for health professionals (veterinarians and others) in their country, predominantly in the areas of animal health field services and extension activities; food safety; disease diagnosis; and teaching, but also in health certification and prescription and monitoring of veterinary medicines (veterinarians) and policy development and aquatic animal welfare (non-veterinarians).

There is generally little difference in allocating these future areas to veterinarians *versus* non-veterinarians, except that only seven Member Countries consider aquatic animal welfare a future field for veterinarians. Given the strong rating of food safety, it is surprising that prescription and monitoring of veterinary medicines does not rate higher, especially given the recent findings of nitrofuran and chloramphenicol residues in aquatic animal products which have impeded access to European and US markets for several exports countries in the region (Rosenberry 2003).

In eleven Member Countries, aquatic animal health is part of the veterinary curriculum, and it is taught as part of other university courses in ten Member Countries. In eight Member Countries, aquatic animal health is taught to both veterinary and non-veterinary students, while only in one Member Country aquatic animal health is not taught at all. The relatively good coverage of aquatic animal health at veterinary and non-veterinary undergraduate level is encouraging, given the predicted increasing role for veterinarians and non-veterinarians in aquatic animal health.

➔ In thirteen of fourteen Member Countries, aquatic animal health is taught as part of the veterinary or other scientific curricula, and in eight of fourteen, it is taught to both veterinary and non-veterinary students.

2.2. Responsible authority

Of the fourteen respondents, seven confirm that in their country the veterinary authorities are responsible for aquatic animal health, however, three of those emphasise that fisheries authorities are also involved or are responsible at a lower government level. In the case of a major aquatic animal disease outbreak, the veterinary authorities would be the lead agency for mounting the response in those Member Countries. Contact between veterinary and fisheries authorities in those seven Member Countries ranges from 'daily' to 'less than once a month'.

In the remaining seven Member Countries, there is either shared responsibility between veterinary and fisheries authorities, or the fisheries authorities are the solely responsible agency. In all these cases, fisheries authorities would take the lead in mounting an emergency aquatic animal disease response.

→ In seven of fourteen Member Countries, veterinary authorities are responsible for aquatic animal health and would be the lead agency for mounting the response to a major aquatic animal disease outbreak. In the other seven Member Countries, there is either sole or shared responsibility of the fisheries authorities who would take the lead in mounting an emergency aquatic animal disease response.

In five of the seven Member Countries where responsibility rests either solely or partly with the fisheries authorities, contact between the fisheries and veterinary authorities is reported as 'less than once a month'. This is of concern, especially where the responsibility is shared. Acknowledging that veterinary authorities are usually well experienced in managing terrestrial animal emergency disease outbreaks, and fisheries authorities are familiar with the aquatic environment, closer cooperation between the two agencies seems eminently sensible to benefit to the industries whose livelihood may be at stake in a major aquatic disease emergency.

2.3. Disease reporting

Every year, the Veterinary Services of the OIE, the FAO[4] and the WHO[5] Member Countries submit their responses to an annual questionnaire from the OIE. This questionnaire contains information on the OIE's terrestrial animal List A and List B diseases as well as some aquatic animal diseases[6]. Only one of thirteen responding Member Countries states that they do not provide information on aquatic animal diseases as part of these responses. This is a country where the veterinary authorities are not responsible for aquatic animal health.

The OIE has been a partner in the joint FAO/NACA[7]/OIE *Asia Regional Programme of Aquatic Animal Health Management* since this program's inception in 1998 (see item 6 for details). Under this program, Quarterly Aquatic Animal Disease (QAAD) reporting commenced in mid 1998, on a list of diseases which by default incorporates all aquatic animal diseases listed in the OIE's *Aquatic Animal Health Code ("Aquatic Code")* (Office International des Épizooties 2003a) as well as additional diseases of specific relevance to the Asia-Pacific region. QAAD reporting is coordinated through the OIE Regional Representation for Asia and the Pacific in Tokyo and through the NACA Headquarters in Bangkok. Most participating countries submit identical reports to both the OIE Regional Representation and NACA, but some countries submit their report only to one organisation. This is especially so for countries where responsibility for aquatic animal health does not rest with the veterinary authorities: QAAD reports are prepared, but not signed by the OIE national delegate, and submitted to NACA only. Hence, two sets of QAAD report publications are produced, one set through the OIE Regional Representation, and one set through NACA. Both sets can be viewed on the Internet (http://www.oie-jp.org/ and http://www.enaca.org/, respectively).

Twelve of the fourteen Member Countries are aware of this regional initiative and participate in the OIE/NACA QAAD reporting system (the two non-participating countries are not NACA members or participating governments). Notably, the one country not providing aquatic information through the OIE annual returns (see above) participates in the regional QAAD reporting system through NACA, but not through the OIE Regional Representation. It seems wasteful that such data are collated by this Member Country and not subsequently used for disease reporting through the OIE QAAD as well as annual reporting systems.

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[4] Food and Agriculture Organization of the United Nations
[5] World Health Organization
[6] Information is collated on those aquatic animal diseases that were in the past listed as 'notifiable'. Since May 2003, this category has been abolished, and new reporting arrangements will come into effect in January 2005.
[7] Network of Aquaculture Centres in Asia-Pacific

→ Twelve of thirteen Member Countries provide information on the aquatic animal health status through the Central Bureau's annual reporting system, and twelve of fourteen Member Countries provide information through the regional OIE/NACA Quarterly Aquatic Animal Disease reporting initiative.

Whilst almost all Member Countries participate in disease reporting, item 3 of this report looks at the accuracy of the information provided (see below).

2.4. Cooperation with OIE

Eight respondents (five of them Member Countries with prime responsibility of veterinary authorities for aquatic animal health) state that they provide comments to the OIE on draft texts for the OIE *Aquatic Code* and the OIE *Manual of Diagnostics Tests for Aquatic Animals ("Aquatic Manual")* (OIE 2003b). However, a subsequent check with the OIE Central Bureau revealed that only three do so regularly.

→ Three of thirteen Member Countries regularly provide comments to the OIE on draft texts for the *Aquatic Code* and the *Aquatic Manual.*

Those Member Countries that claim to provide comments prepare their responses in consultation with somewhere between 1-5 and over 20 experts. However, it is the experience of the Aquatic Animals Commission that in many Member Countries the Commission's meeting reports – which have the draft revised or new texts appended – reach aquatic animal health experts either too late for meaningful comment, or not at all.

This extremely low level of engagement with the OIE regarding draft texts for the *Aquatic Code* and the *Aquatic Manual* is of concern to the OIE, because Member Countries do not take up the opportunity to influence the setting of international standards that underpin international trade. Therefore, the Director General of the OIE recently urged national Delegates to ensure that aquatic animal health experts in their country as well as the appropriate aquatic animal health authority receive the Aquatic Animals Commission's reports. He stressed that this would greatly improve knowledge of OIE standard-setting activities in the field of aquatic animal health and the transparency of epidemiological reporting (Appendix 1).

The questionnaire also queried the extent to which Member Countries make use of the Aquatic Animals Commission's web pages (http://www.oie.int/fdc/eng/en_fdc.htm) on the OIE website. The Commission's pages feature 'latest news' and regular updates on aquatic animal disease occurrences, and they provide numerous useful links to e.g. import risk analyses, national aquatic animal disease contingency plans, and the International Aquatic Animal Disease database maintained by the OIE's Collaborating Centre for Information on Aquatic Animal Diseases.

→ Two of fourteen Member Countries visit the web pages of the Aquatic Animals Commission, weekly, the remaining Member Countries report a frequency of monthly or less than once a month.

3. EVALUATION OF DISEASE REPORTING ACCURACY

In the questionnaire, Member Countries were asked to indicate – as 'present', 'never reported', or 'no information available' – the status of all aquatic animal diseases currently listed by the OIE. Some of the listed diseases are of major concern to the region because of their – so far – limited occurrence but ability to spread rapidly. Therefore, the availability of up to date and accurate information of the status of those diseases is essential to all trading partners.

All fourteen respondents filled in the table provided. For six selected diseases, these data were compared with the information available in Handistatus II (http://www.oie.int/hs2/report.asp), in the OIE's weekly *Disease Information* (http://www.oie.int/eng/info/hebdo/a_INFO.HTM), and in the QAAD reports available on the website of the OIE Regional Representation for Asia and the Pacific (http://www.oie-jp.org/). The diseases chosen are:

- Fish diseases: Viral haemorrhagic septicaemia; Spring viraemia of carp;
- Mollusc diseases: Infection with *Haplosporidium nelsoni;* Infection with *Perkinsus olseni;* and
- Crustacean diseases: Taura syndrome; Yellowhead disease.

Reported status was compared between the various reporting systems, and the appropriateness and consistency of symbols used for reporting on the status of these diseases was checked.

The table in Appendix 2 shows examples of some of the inaccuracies and inconsistencies discovered but does not reveal the identity of the Member Countries. Interestingly, there is no correlation with whether or not the veterinary authorities are in charge of aquatic animal health in those countries. Rather, the same mistakes are made regardless of the lead agency. This is surprising, because one would have assumed a higher level of awareness of, and commitment to, accurate reporting in those countries where the veterinary authorities have prime carriage for, and the national delegate is therefore more closely involved with, aquatic animal health.

Identified shortcomings can be grouped into three categories:

a) Inappropriate symbols are used. For example, a disease is reported as 'not reported in this quarter –' when probably 'never reported 0000' is meant.

b) The first occurrence of a listed disease is not reported, because there were no clinical signs or mortality associated with the detection of the agent, or reporting on the status of a listed disease ceases in the absence of clinical signs. Such reporting (or lack thereof) disregards that the circumstances for reporting do not require the presence of clinical disease or mortality (see item 5 below).

c) Several sets of data are officially provided to the OIE (e.g. through annual and quarterly reports), but the data sets are inconsistent with each other. In worst cases one set reports the Member Country to be infected with a listed disease, while another confirms it to be free. Both sets of data are provided through the national delegate. In some cases the information provided through the questionnaire is not consistent with <u>any</u> of the official OIE reports.

➔ There are numerous examples of inaccurate reporting of aquatic animal disease status: These include the use of inappropriate symbols; the provision of conflicting information to the OIE's Tokyo Office and to the Central Bureau; and not reporting the (first) occurrence of listed diseases, for example, because there are no clinical signs or mortality.

It should be noted that further problems arise where data published in the scientific literature are in conflict with the information provided through the national Delegates, however, this was not checked as part of this study. Such non-official data and their sources can be viewed and compared to the official (OIE) data on the website of the International Aquatic Animal Disease database maintained by the OIE's Collaborating Centre for Information on Aquatic Animal Diseases (<u>http://www.collabcen.net/</u>).

Earlier in 2003, NACA conducted an internal analysis of the QAAD reports received since mid 1998. They concluded that – on the positive side – the process of developing and implementing QAAD reporting had both directly and indirectly contributed to:

- Creating awareness at various levels (farmers/industry/government) in the participating countries on the need for regional disease reporting;
- Raising awareness on the trade benefits of a transparent disease reporting system;
- Creation of "information base" on distribution and spread of diseases of concern within the region; and
- Establishment of national strategies on aquatic animal health.

However, they also found that – considering the Asia-Pacific region as a whole – the QAAD reports are incomplete. They do not provide the much needed comprehensive information on the occurrence and distribution of diseases of concern to the region. NACA suggest that the reasons may lie in:

- Ineffective disease data gathering at the country level;
- Lack of compliance by many countries;
- Poor quality of disease reporting;
- Wrong reporting of diseases of concern; and
- Under-reporting of diseases of concern.

Based on the results of the present questionnaire, an underlying issue may be that some Member Countries do not fully appreciate the importance of accurate aquatic animal disease reporting. This may be so because the OIE is not generally

known, or its mission understood, or disease reporting is an unusual concept. Also, aquaculture may in the past not have been a major national economy. However, as reported under items 2.1 and 2.2 above, all respondents consider aquaculture a growing industry in their country. Hence it is appropriate to now provide an update on the OIE's involvement in aquatic animal health, and the resulting obligations for Member Countries.

4. UPDATE ON OIE'S INVOLVEMENT IN AQUATIC ANIMAL HEALTH

4.1. The OIE Aquatic Animal Health Standards Commission

The aquatic standards are prepared by one of the OIE's four elected Specialist Commissions, the Aquatic Animal Health Standards Commission (in brief, Aquatic Animals Commission), with the assistance of internationally renowned experts who also contribute towards the scientific objectives of the OIE. The views of the Delegates of Member Countries are systematically sought through the circulation of draft and revised texts. As well, the Aquatic Animals Commission collaborates closely with the OIE Terrestrial Animal Health Standards Commission on issues needing a harmonised approach, and with the Biological Standards and Scientific Commissions to ensure the Aquatic Animals Commission is using the latest scientific information in its work. The Aquatic Animals Commission has its own pages on the OIE website (http://www.oie.int/fdc/eng/en_fdc.htm). These pages link directly to all documents specific to aquatic animals, and they also feature updates on disease developments.

4.2. OIE Aquatic Standards

The main normative works produced by the OIE for aquatic animals are the *Aquatic Animal Health Code* ("*Aquatic Code*") and the *Manual of Diagnostic Tests for Aquatic Animals* ("*Aquatic Manual*"). The OIE International Committee, the general assembly of all Delegates of OIE Member Countries, which constitutes the organisation's highest decision-making body, adopts the aquatic standards. Just like the standards for terrestrial animal diseases, the aquatic standards are recognised by the World Trade Organization as reference international sanitary rules, and Member Countries can use these standards to protect themselves from diseases, without setting up unjustified sanitary barriers.

The 6th edition (2003) of the *Aquatic Code* and the 4th edition (2003) of the *Aquatic Manual* incorporate some major modifications agreed during the 71st General Session in May 2003. These include revised chapters on 'notification and epidemiological information', 'obligations and ethics in international trade', as well as two new chapters on 'disease notification criteria' and 'diseases listed by the OIE'. The International Committee also adopted a new chapter on 'Requirements for surveillance for international recognition of freedom from infection'; this new chapter gives general guidance based as far as possible on the general principles provided in the [Terrestrial] *Animal Health Code*. All these changes are fundamental and therefore explained in more detail below:

4.2.1. Disease categories have been abolished

With the 6th version of the *Aquatic Code*, the concept of different categories of listed diseases has been abolished, implementing Resolution XXIII passed by the OIE International Committee in May 2001. As a result, there is now only one single list of aquatic animal diseases (see Appendix 3)[8]. This current list combines all those aquatic animal diseases that were previously listed as either 'notifiable' or 'other significant' by the OIE. Reporting requirements now relate to all those diseases (see item 4.2.3).

It is important that Member Countries understand that the primary purpose of listing a disease is to assist the OIE to fulfill its mission to guarantee the transparency of the aquatic animal health status world-wide, by enabling OIE to collate and disseminate the information received in reports on the status of those listed diseases. With all Member Countries now required to regularly report on the status of all listed diseases, it is crucial to critically assess which diseases need to be on the list.

[8] At the 71st General Session in 2003, the International Committee accepted, in principle, the concept of abolishing List A and List B diseases of terrestrial animals and merging all the listed diseases into a single list, thereby implementing the same Resolution XXIII of 2001.

→ The fundamental purpose of the listing of diseases is to provide timely and quality information in support of disease control strategies. Since May 2003, there is only one single list of aquatic animal diseases, and Member Countries must report on the status of all listed diseases.

Member Countries also need to understand that they are free to request from trading partners information on non-listed diseases, or to develop and enforce other import health measures to protect themselves against non-listed diseases, under the provisions of the World Trade Organization's Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) (World Trade Organization 1994).

4.2.2. New disease listing criteria have been adopted

Following from Resolution XXIII passed by the OIE International Committee in May 2001, the Aquatic Animals Commission progressed the development of new and transparent criteria for listing an aquatic animal disease, which were subsequently adopted and published in Article 1.1.2.1 of the 6th edition (2003) of the *Aquatic Code.* Diseases suggested for listing must meet relevant parameters under the headings 'Consequences', 'Spread' and 'Diagnosis' (see Appendix 4). Following consultation with Member Countries between September and December 2003, the Aquatic Animals Commission will propose to the International Committee in May 2004 to remove several of currently listed diseases as they do not fulfil the new, adopted listing criteria. At the time of writing this report, the diseases proposed for deletion are marked with an asterisk in Appendix 3. Nominations for diseases to be added must be made to the OIE by demonstrating how the suggested diseases meets the criteria.

→ A Member Country proposing to list an aquatic animal disease with the OIE must demonstrate that the disease fulfils the new, adopted criteria for 'Consequences', 'Spread' and 'Diagnosis'.

4.2.3. New disease reporting obligations for Member Countries have been adopted

The OIE recognises that in many Member Countries, an authority other than the *Veterinary Administration* may be responsible for aquatic animal health. The *Aquatic Code* therefore defines the *Competent Authority* as:

> "... the National Veterinary Services, or other Authority of a Member Country, having the responsibility and competence for ensuring or supervising the implementation of the aquatic animal health measures recommended in this *Aquatic Code.*"

Nevertheless, according to Section 1.2 of the *Aquatic Code:*

→ The responsibility for providing the OIE with disease notifications and epidemiological information rests with the *Veterinary Administration* in all Member Countries.

Chapter 1.2.1 on 'Notifications and Epidemiological Information' (Section 1.2) has been updated in the *Aquatic Code* to reflect the new disease notification system adopted by the International Committee in 2003. This new system implements Resolution XXIII passed in 2001. Whilst there is only one single list of aquatic animal diseases, there are two 'categories' of urgency for reporting the listed diseases. Regular reports on the status of all listed diseases must be provided to the OIE through the annual returns and – in the Asia Pacific region – through the QAAD reporting system. Under specific epidemiological circumstances, notification must be provided to the OIE within 24 hours (see Appendix 5); this applies to all listed diseases.

→ For all listed diseases, regular (e.g. annual, quarterly) status reports must be provided to the OIE. However, urgent notification on all listed diseases is required if the disease occurs for the first time or re-occurs; if it occurs in a new host species, or with a new pathogen strain, or in a new disease manifestation; If there is potential for international spread; or if there is newly recognised zoonotic potential.

Urgent notification can also apply to non-listed diseases if there is a case of an emerging disease[9] or pathogenic agent when there are findings that are of epidemiological significance to other countries.

[9] The OIE defines 'emerging disease' as: « a newly recognised serious disease, the cause of which may or may not yet be established, that has the potential to be spread within and between populations, for example by way of trade in *aquatic animals* and/or *aquatic animal products.* »

In this context, it is important to understand that the circumstances for regular and urgent notification do not require the presence of clinical disease or mortality. The OIE recognises that scientific knowledge concerning the relationship between disease agents and diseases is constantly evolving and that the presence of an infectious agent does not necessarily imply the presence of a disease: The 6th edition of the *Aquatic Code* clarifies in Article 1.2.1.2.4:

➔ The presence of an infectious agent, even in the absence of clinical *disease*, should be reported.

4.2.4. New requirements for surveillance for international recognition of freedom from infection

In the future, the requirements to declare a country or zone free from infection with a listed disease will differ depending on the previous infection status and will take into account:

- Absence of susceptible species;
- Historical freedom;
- Last known occurrence within the previous 25 years; and
- Previously unknown infection status.

Demonstrating freedom from infection involves providing sufficient evidence to demonstrate that infection with a specified agent is not present in a specified population. In practice, it is not possible to definitively prove that a population is free from infection (unless every member of the population is examined simultaneously with a perfect test with both sensitivity and specificity equal to 100%). Instead, the aim is to provide adequate evidence (to an acceptable level of confidence), that infection, if present, is present in less than a specified proportion of the population.

This is a huge step forward from the previous 'one-size-fits-all' approach of targeted surveillance of 150 animals, regardless of test specificity and sensitivity, disease specifics, or epidemiological circumstances. Details on these new requirements are published in the *Aquatic Manual* in Chapter 1.1.4, but the format and content of the individual disease chapters in the *Aquatic Code* as well as *Aquatic Manual* will require substantial amendment to take into account these new requirements. Following the consideration of Member Country comments, the Commission will prepare draft *Aquatic Code* chapters for the listed diseases for adoption by the International Committee in May 2004.

4.3. OIE's involvement in aquatic animal welfare

Animal welfare was identified as a priority in the 2001-2005 OIE Strategic Plan. OIE Member Countries had decided that, as the international reference organisation for animal health and zoonoses, the OIE must provide international leadership on animal welfare. Although the SPS Agreement does not cover animal welfare, Member Countries wished to have guidelines and recommendations to assist them in bilateral negotiations.

Member Countries recognised that, as animal protection is a complex, multi-faceted public policy issue that includes important scientific, ethical, economic and political dimensions, the OIE needed to develop a detailed vision and strategy incorporating and balancing these dimensions.

In order to implement the new mandate, the Director General of the OIE convened an Ad hoc Group on animal welfare the recommendations of which were unanimously adopted during the 70th General Session in May 2002. A permanent Working Group on Animal Welfare was then established and held its first meeting in October 2002.

The International Committee decided that the OIE would give priority to the welfare of animals used in agriculture and aquaculture, and that, within that group, the topics of transportation, humane slaughter and killing for disease control purposes would be addressed first, followed by housing and management. Other topics, such as research animals and wildlife, would be addressed as resources permitted.

The former President of the then OIE Fish Diseases Commission – Professor Dr. Tore Håstein – has been appointed as a Member of the OIE Working Group on Animal Welfare to provide expertise on fish. The Group will meet in February 2004 prior to the OIE international conference on animal welfare. A topic on aquatic animals will be included on the agenda of this conference.

5. REGIONAL AQUATIC ANIMAL HEALTH INITIATIVES

The Regional Commission for Asia, the Far East and Oceania has been formed by the OIE to promote cooperation, study specific problems encountered by Veterinary Services and organise cooperation activities on a regional level. The OIE maintains a Regional Representation for Asia-Pacific with the goal to provide regionally adapted services to Member Countries so that they may strengthen the surveillance and control of animal diseases in the region. Improving aquatic animal disease surveillance is one of the programs of the Regional Representation for Asia-Pacific.

The OIE has been a partner in the joint FAO/NACA/OIE *Asia Regional Programme of Aquatic Animal Health Management* since this program's inception in 1998. This program was successful in developing the *Asia Regional Technical Guidelines on Health Management for the Responsible Movement of Live Aquatic Animals* and the *Beijing Consensus and Implementation Strategy* (FAO/NACA 2000). The *Technical Guidelines* were adopted in principle by 21 participating governments[10] (all but one are OIE Member Countries) in the Asian region in July 2000 and subsequently adopted by the 9th Meeting of the Association of Southeast Asian Nations (ASEAN) Fisheries Working Group held in September 2001 in Bali, Indonesia. A *Manual of Operational Procedures* (FAO 2001) and an *Asia Diagnostic Guide to Aquatic Animal Diseases* (Bondad-Reantaso *et al.* 2001) are two further publications arising from this cooperation. All documents are available on the NACA website http://www.enaca.org/).

Whilst the regional program came to an end in 2001, there was consensus that the momentum must not be lost. NACA suggested establishing the Asia Regional Advisory Group on Aquatic Animal Health. Membership would include the OIE through a representative of the OIE's Tokyo office and a delegate of the OIE Aquatic Animals Commission. The NACA Governing Council at its 13th meeting, held in Malaysia in January 2002, approved the composition of the Asia Regional Advisory Group on Aquatic Animal Health and its Terms of Reference. The Council also endorsed NACA's institutional support for the Advisory Group and reiterated its strong support to the Aquatic Animal Health Program, in general. The Terms of Reference of the Advisory Group are to provide advice to NACA through the following activities:

- Review and evaluate quarterly regional aquatic animal disease reporting;
- Evaluate progress made on implementation of the *Technical Guidelines*;
- Advise in identification and designation of regional aquatic animal health resources, as specialist advisers, Regional Reference Laboratories and Resource Centres;
- Revision of the *Technical Guidelines*, *Manual of Procedures* and *Asia Diagnostic Guide for Aquatic Animal Diseases* as required;
- Develop procedures for advising on dealing with aquatic animal health emergencies; and
- Review the TOR as and when required.

Through its membership and linkages, the Asia Regional Advisory Group on Aquatic Animal Health provides an excellent means to assist in strengthening the much-needed regional cooperation on aquatic animal health not only between countries, but also between veterinary and fisheries authorities.

6. CONCLUSIONS

Acknowledging that the questionnaire may not be fully representative, the emerging picture is one of an aquatic animal sector in the region that is not as well provided with professional health services as the livestock sector. It appears that whilst aquaculture has been growing rapidly in many countries, there has been no matching expansion of a supporting aquatic animal health infrastructure. However, there is relatively good coverage of aquatic animal health at veterinary and non-veterinary undergraduate training, and most countries are taking additional steps to ensure that growing aquaculture industries will be adequately serviced with aquatic animal health professionals (veterinarians or others) in the future. Only seven Member Countries consider aquatic animal welfare a future field for veterinarians. Given the strong rating of food safety, it is surprising that prescription and monitoring of veterinary medicines is also at the bottom of the list of future activities.

[10] Australia, Bangladesh, Cambodia, China P.R., Hong Kong China, India, Indonesia, Iran, Japan, Korea (D.P.R.), Korea (R.O.), Laos (P.D.R.), Malaysia, Myanmar, Nepal, Pakistan, the Philippines, Singapore, Sri Lanka, Thailand and Viertnam

The reported infrequent contact between veterinary and fisheries authorities – especially in those seven Member Countries where responsibility rests either solely or partly with the fisheries authorities – is of concern. Given the complementing expertise of the two authorities, closer cooperation seems eminently sensible especially when industries' livelihood may be at stake in a major aquatic disease emergency.

There are numerous examples of inaccurate reporting of aquatic animal disease status: These include the use of inappropriate symbols; the provision of conflicting information to the OIE's Tokyo Office and to the Central Bureau; and not reporting the first occurrence of listed diseases. Surprisingly, there is no correlation with whether or not the veterinary authorities are in charge of aquatic animal health in those countries.

Fundamental changes to the *Aquatic Code* and *Aquatic Manual* have been adopted in 2003. These include the listing of aquatic animal diseases and the requirements for reporting on the status of listed diseases. It is important that Member Countries fully understand these new arrangements and accept and fulfil their obligations on disease reporting.

There is an extremely low level of engagement with the OIE regarding draft texts for the *Aquatic Code* and the *Aquatic Manual*. This means that Member Countries do not take up the opportunity to influence the setting of international standards that underpin international trade. It is also the experience of the Aquatic Animals Commission that in many Member Countries the Commission's meeting reports – which have the draft revised or new texts appended – reach aquatic animal health experts either too late for meaningful comment, or not at all.

It is disappointing to see how little use Member Countries make of the Aquatic Animals Commission's web pages that provide easy and free access to very useful information.

Despite all identified shortcomings, the very fact that nearly fifty percent of the Member Countries returned a filled-in questionnaire demonstrates that aquatic animal health may be increasing in profile with those Member Countries, and justifies hopes that with the combined efforts of the OIE; of Member Countries and their veterinary and fisheries authorities; and of other regional and international organisations such as NACA and FAO, aquatic animal health will eventually receive the attention it deserves at national and international levels. Hopefully, this will happen in a proactive manner, and not because an economically crippling disease pandemic provides the *force majeure*.

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8. APPENDICES

Our Ref.: ASC/SL 35.255 Paris, 26 August 2003

NOTE to the Delegates of Member Countries

Dear Delegate

Dissemination of the reports of the meetings of the Aquatic Animals Commission to the aquatic animal health experts

The first meeting of the Asia Regional Advisory Group on Aquatic Animal Health took place at the NACA Headquarters (Network of Aquaculture Centers in Asia-Pacific) in Bangkok, Thailand, in November 2002. Dr Eva-Maria Bernoth, now the President of the OIE Aquatic Animal Health Standards Commission (in brief, Aquatic Animals Commission), participated as an expert and representative of the OIE at this meeting. It was agreed that the Aquatic Animals Commission would be permanently represented on the Asia Regional Advisory Group.

One of the issues discussed at the first meeting was the need for better cooperation (e.g. on disease emergency responses, surveillance and notification of diseases to the OIE) between OIE Delegates and the various fisheries authorities involved in aquatic animal health in some OIE Member Countries. As one step towards enhancing cooperation and awareness, the Asia Regional Advisory Group requested improved dissemination of the reports of the meetings of the Aquatic Animals Commission to relevant aquatic animal health experts.

With this letter, therefore, I kindly request that, as the official OIE Delegate of your country, you ensure that aquatic animal health experts in your country as well as the appropriate aquatic animal health authority receive the Aquatic Animals Commission's reports. This would greatly improve knowledge of OIE standard-setting activities in the field of aquatic animal health and the transparency of epidemiological reporting.

Best regards,

Dr Bernard Vallat

Director General

EXAMPLES OF INCONSISTENCIES IN AQUATIC ANIMAL DISEASE REPORTING

	Handi-Status[11]	**QAAD reports**[12]	***Disease information***[13]	**Questionnaire September 2003**	**Comment**
Disease 1: Viral haemorrhagic septicaemia					
Country A	1996: 0000 1997: 0000 1998: 0000 1999: 0000 2000: 0000 2001: 0000	2000: - / 0000 2001: 0000 2002: 0000 2003: +	Not mentioned	+	Inconsistent symbols used in 2000 QAAD; Incorrect and inconsistent symbols used in HS and QAAD; No report of first occurrence to weekly *Disease Information*
Country B	1996: ... 1997: no entry 1998: - 1999: no entry 2000: no entry 2001: no entry	2000: no entry 2001: - / ... 2002: - / ... 2003: ...	Not mentioned	+	Inconsistent symbols used in 2001 and 2002 QAADs; Incorrect and inconsistent symbols used in HS and QAAD; No report of first occurrence to weekly *Disease Information*
Disease 2: Spring viraemia of carp					
Country A	1996: ... 1997: ...	2000: 0000 2001: 0000	Not mentioned	+	Incorrect symbols used in HS and QAAD;

[11] HandiStatus data available for 1996-2001 for some diseases, and 1999-2001 for others
[12] QAAD reports data mostly available for 2000 to June 2003, sometimes only as of 2001
[13] Disease information considered for the last 18 months (back to mid February 2002)

	Handi-Status[11]	QAAD reports[12]	*Disease information*[13]	Questionnaire September 2003	Comment
	1998: ... 1999: ... 2000: - 2001: -	2002: 0000 2003: ?			Symbols used inconsistently between HS and QAAD No reporting of suspicion to weekly *Disease Information*
Country B	1996: ... 1997: no entry 1998: - 1999: no entry 2000: no entry 2001: no entry	2001: - / ... 2002: - / ... 2003: ...	Not mentioned	+	Incorrect symbols used in HS and QAAD; Symbols used inconsistently between HS and QAAD Presence reported in questionnaire but not officially to OIE, ever.
Disease 3: Infection with *Haplosporidium nelsoni*					
Country A	1996: 0000 1997: 0000 1998: ? 1999: 0000 2000: 0000 2001: 0000	2000: 0000 2001: 0000 2002: no entries 2003: no entries	Mentioned when first detected in 2001	+	Correct and timely reporting of first occurrence in 2001 to weekly *Disease Information*, but no entries in QAADs since then because finding was not associated with mortality.
Disease 4: Infection with *Perkinsus olseni*					
Country A	1996: ... 1997: ... 1998: ... 1999: ...	2000: ? / ... 2001: ... 2002: ... 2003: +	Not mentioned	+	Inconsistent symbols used in 2000 QAAD; Accurate and consistent reports since, but no report of first occurrence to weekly *Disease Information*, maybe because not

	Handi-Status[11]	QAAD reports[12]	*Disease information*[13]	Questionnaire September 2003	Comment
	2000: ... 2001: ...				associated with mortality.
Disease 5: Taura syndrome					
Country A	1999: no entry 2000: no entry 2001: -	2001: ... 2002: - 2003: 0000; since May 2003: ?	Not mentioned	+	Incorrect symbols used in HS and QAAD; No reporting of suspicion to weekly *Disease Information*
Country B	1999: +() 2000: +() 2001: (2000)	N/a (not a member)	Not mentioned	0000	Inconsistent questionnaire reply
Disease 6: Yellowhead disease					
Country A	1999: ... 2000: ... 2001: ...	2000: - '2001: - 2002: -entries 2003: - / 0000	Not mentioned	+	Inconsistent symbols used in 2003 QAAD; Incorrect and inconsistent symbols used in HS and QAAD; Reporting occurrence in questionnaire, but not officially to OIE, ever.
Country B	1999: ? 2000: ? 2001: ?	2000: ? 2001: ? 2002: ? 2003: ?	Not mentioned	+	Consistent reporting in HS and QAADs, but no official report of suspicion to OIE ever, despite reporting occurrence in questionnaire.

AQUATIC ANIMAL DISEASES LISTED BY THE OIE[14]

Diseases of fish:

Epizootic haematopoietic necrosis
Infectious haematopoietic necrosis
Oncorhynchus masou virus disease*
Spring viraemia of carp
Viral haemorrhagic septicaemia
Channel catfish virus disease
Viral encephalopathy and retinopathy*
Infectious pancreatic necrosis*
Infectious salmon anaemia
Epizootic ulcerative syndrome
Bacterial kidney disease (*Renibacterium salmoninarum*)*
Enteric septicaemia of catfish (*Edwardsiella ictaluri*)*
Piscirickettsiosis (*Piscirickettsia salmonis*)*
Gyrodactylosis (*Gyrodactylus salaris*)
Red sea bream iridoviral disease*
White Sturgeon iridoviral disease*

Diseases of molluscs:

Infection with *Bonamia ostreae*
Infection with *Bonamia exitiosus*
Infection with *Mikrocytos roughleyi**
Infection with *Haplosporidium nelsoni**
Infection with *Marteilia refringens*
Infection with *Marteilia sydneyi**
Infection with *Mikrocytos mackini**
Infection with *Perkinsus marinus*
Infection with *Perkinsus olseni/atlanticus*
Infection with *Haplosporidium costale**
Infection with *Candidatus* Xenohaliotis californiensis

[14] OIE *Aquatic Animal Health Code*, 6th edition 2003, Chapter 1.1.3.

Appendix 3

Diseases of crustaceans:

Taura syndrome
White spot disease
Yellowhead disease
Tetrahedral baculovirosis (*Baculovirus penaei*)
Spherical baculovirosis (*Penaeus monodon*-type baculovirus)
Infectious hypodermal and haematopoietic necrosis
Crayfish plague (*Aphanomyces astaci*)
Spawner-isolated mortality virus disease*

* Diseases marked with an asterisk do not fulfil the new listing criteria are proposed for deletion from the list

CRITERIA FOR LISTING AN AQUATIC ANIMAL DISEASE WITH THE OIE[15]

Diseases proposed for listing must meet all of the relevant parameters set for each of the criteria, namely A. Consequences, B. Spread and C. Diagnosis. Therefore, to be listed, a *disease* must have the following characteristics: 1 or 2 or 3; and 4 or 5; and 6; and 7; and 8.

No.	Criteria (A–C)	Parameters that support a listing	Explanatory notes
		A. Consequences	
1.		Where it occurs, the disease has been shown to cause significant production losses due to morbidity or mortality ('morbidity' includes, for example, loss of production due to spawning failure) at a national or multinational (zonal or regional) level.	There is a general pattern that the disease will lead to losses in *susceptible ('susceptible' is not restricted to 'susceptible to clinical disease' but includes 'susceptible to covert infections') species*, and that morbidity or mortality are related primarily to the agent and not management or environmental factors.
2.	Or	The disease has been shown to, or is strongly suspected to, negatively affect wild aquatic animal populations that are shown to be an asset worth protecting.	See above
3.	Or	The agent is of public health concern.	
		And **B. Spread**	
4.		Infectious aetiology of the disease is proven.	
5.	Or	An infectious agent is strongly associated with the disease, but the aetiology is not yet known.	Infectious diseases of unknown aetiology can have equally high-risk implications as those diseases where the infectious aetiology is proven. Whilst disease occurrence data are gathered, research should be conducted to elucidate the aetiology of the disease and the results be made available within a reasonable period of time.
6.	And	Potential for international spread, including via live animals, their products and inanimate objects.	Under international trading practices, the entry and establishment of the disease is a likely risk.
7.	And	Several countries/zones are free of the disease based on the recommendations of the *Aquatic Animal Health Code* and *Manual of Diagnostic Tests for Aquatic Animals*.	*Free countries/zones* could still be protected. Listing of diseases that are ubiquitous or extremely widespread would render notification unfeasible, however, individual countries that run a control programme on such a disease can demand its listing provided they have undertaken a scientific evaluation to support their request. Examples may be the protection of *broodstock* from widespread diseases, or the

[15] OIE *Aquatic Animal Health Code*, 6th edition 2003; Chapter 1.1.2., Article 1.1.2.1

No.	Criteria (A–C)	Parameters that support a listing	Explanatory notes
			protection of the last remaining *free zones* from a widespread disease.
		And **C. Diagnosis**	
8.		A repeatable, robust means of detection/diagnosis exists.	A diagnostic test should be widely available and preferably has undergone a formal standardisation and validation process using routine field samples (see OIE *Manual of Diagnostic Tests for Aquatic Animals*).

Appendix 5

OIE REQUIREMENTS FOR AQUATIC ANIMAL DISEASE NOTIFICATION[16]

Veterinary Administrations shall send to the OIE:

1. *Notification* by fax, telegram or electronic mail, within 24 hours, of any of the following events:
   a) for *diseases listed by the OIE,* the first occurrence or re-occurrence of a *disease* in a country or *zone* of the country, if the country or *zone* of the country was previously considered to be free of that particular *disease*; or
   b) for *diseases listed by the OIE,* if the *disease* has occurred in a new host species; or
   c) for *diseases listed by the OIE,* if the *disease* has occurred with a new pathogen strain or in a new *disease* manifestation; or
   d) for *diseases listed by* the OIE, if there is potential for international spread of the *disease;* or
   e) for *diseases listed by the OIE*, if the *disease* has newly recognised zoonotic potential; or
   f) for diseases not listed by the OIE, if there is a case of an *emerging disease* or pathogenic agent should there be findings that are of epidemiological significance to other countries.

   In deciding whether findings justify immediate *notification,* countries must ensure that they comply with the obligations of Section 1.3 of this *Aquatic Code* (especially Article 1.3.1.1), to report developments that may have implications for *international trade.*
2. Monthly reports by fax, telegram or electronic mail subsequent to a *notification* under paragraph 1 above, to provide further information on the evolution of an incident that justified urgent *notification.* These reports should continue until the *disease* has been eradicated or the situation has become sufficiently stable that annual reporting under paragraph 3 will satisfy the obligation of the country to the OIE.
3. Annual reports on the absence or presence and evolution of *diseases listed by the OIE,* and findings of epidemiological importance to other countries with respect to *diseases* that are not listed.

[16] OIE *Aquatic Animal Health Code*, 6th edition 2003, Chapter 1.2.1., Article 1.2.1.3.

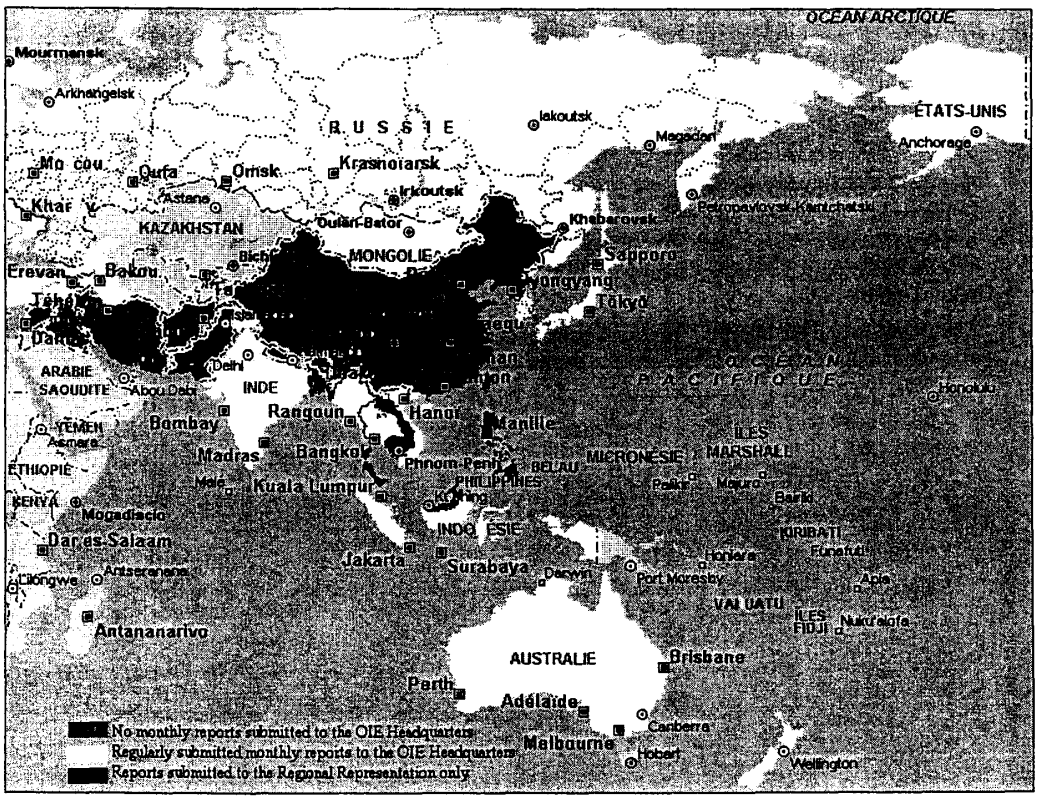
ANIMAL HEALTH SITUATION IN ASIA, THE FAR EAST AND OCEANIA DURING 2003[1]

REPORT BY THE OIE CENTRAL BUREAU

The following report on the animal health situation in Asia, the Far East and Oceania in 2003 is based on information submitted to the OIE by Member Countries of the Regional Commission for Asia, the Far East and Oceania in their emergency and follow-up reports and monthly reports between January and October 2003. Valuable information is extracted from the national reports submitted in preparation for the Regional Conference. Furthermore, when necessary, animal health information submitted to the Regional Representation for Asia and the Pacific was used.

The map below indicates the regularity with which the Member Countries submitted their monthly reports to the OIE during 2003.

Submission of official monthly reports during 2003 (see Annex 1)



Of the thirty OIE Member Countries of the Regional Commission for Asia, the Far East and Oceania, eight submitted their reports on the animal health situation (on 29 October 2003) for the 23rd Conference of the OIE Regional Commission for Asia, the Far East and Oceania (see Annex 2).

LIST A DISEASES

Foot and mouth disease

For **Afghanistan**, results received in April from the OIE Reference Laboratory for Foot and Mouth Disease (FMD) in Pirbright, United Kingdom, indicated the presence of serotype O in sheep and cattle. FMD is widespread throughout the country.

During the first half of 2003, five outbreaks of FMD in cattle were reported in **Bhutan** in bovines. In **Cambodia**,

[1] *Date of the report: 29 October 2003*

several outbreaks were reported between January and August 2003.

India reported outbreaks of type Asia 1, A and O during the first half of 2003.

Indonesia periodically conducts disease surveillance for all List A diseases, especially FMD, in the provinces bordering Malaysia and the Philippines, as well as Java Island, which was the source of FMD infection during the last outbreak of 1983.

Outbreaks due to serotype O were reported in **Laos** during the first part of 2003.

In **Nepal,** there were massive outbreaks of FMD in the second quarter of 2003, causing high mortality in crossbred dairy cattle and buffaloes. FMD virus type O, 'Panasia' and 'IND2001' topotypes were responsible for epidemic outbreaks in recent months. The epidemiological trend of FMD in Nepal indicates that the current practices of selective FMD vaccination in dairy farming areas and post outbreak ring vaccination in some districts have no significant effect on the overall FMD situation.

Vietnam reported the occurrence of nine FMD outbreaks during 2003, the affected provinces share borders with Cambodia and China. Mass vaccination in the border area and ring vaccination around outbreaks were the control methods used. Serotype O was isolated in six outbreaks in the Dac Lac and Phy Yen Provinces.

In 2003, the following OIE Member Countries reported the presence of FMD: **Afghanistan, Bangladesh, Bhutan, Cambodia, India, Iran, Laos, Malaysia (Peninsular), Myanmar, Nepal, Pakistan**[2]**, Philippines, Sri Lanka, Thailand** and **Vietnam.**

The following OIE Member Countries have never reported the presence of FMD: **New Zealand, New Caledonia** and **Vanuatu.**

During 2003, the following OIE Member Countries reported the absence of outbreaks of FMD: **Australia (1873)**[3]**, Indonesia (1983), Republic of Korea (06/2002), Mongolia (08/2002), Russia (2000), Singapore (1935), Taipei China (02/2001)** and **United States of America (1929).**

Rinderpest

In July 2003, the Delegate of **Bangladesh** declared his country provisionally free from rinderpest.

In June 2003, the Delegate of **Iran** declared his country provisionally free from rinderpest.

Mongolia reported the last outbreak of rinderpest in March 1993. Intensive surveillance is being carried out by the Veterinary Services, so that the country can provisionally declare itself free from rinderpest. As a result of the epidemiological surveillance during 2002, few samples showed weak positive or retest results; however, these samples may have been taken from vaccinated cattle.

In February 2003, the Delegate of **Pakistan** declared his country provisionally free from rinderpest.

Peste des petits ruminants

This disease is still present in **Afghanistan.**

Bangladesh reported sporadic outbreaks of peste des petits ruminants (PPR) in January 2003.

Outbreaks of PPR were reported in **India** in the states of Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Maharashtra, Orissa, Pondicherry and West Bengal.

Nepal reported a total of 196 outbreaks between January and June 2003. The distribution of goats without PPR vaccination in hill districts may be causing the spread of PPR to areas previously unaffected.

Pakistan that reported PPR outbreaks during 2002 has not reported any outbreak during the first half of 2003.

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[2] *Positive results from samples submitted to the OIE/FAO Reference Laboratory for Foot and Mouth Disease (Pirbright, UK) in March 2003.*

[3] *Date of last reported outbreak*

OIE Member Countries that have never reported outbreaks of peste des petits ruminants: **Australia, Indonesia, Japan, New Caledonia, Malaysia, Mongolia, Myanmar, New Zealand, Philippines, Republic of Korea, Russia, Singapore, Sri Lanka, Taipei China, Thailand, United States of America, Vanuatu** and **Vietnam.**

Contagious bovine pleuropneumonia

No outbreaks were reported from the **Asia, Far East and Oceania** region during the first half of 2003.

In October 2003, the Delegate of **India** declared his country provisionally free from contagious bovine pleuropneumonia with vaccination.

Bluetongue

A number of bluetongue (BT) serotypes have been present in northern **Australia** for at least 25 years. Ongoing surveillance is conducted as part of the National Arbovirus Monitoring Program. Clinical disease has only been seen if susceptible sheep are introduced into the endemic area where the *Culicoides* vector exists. The disease has not been seen in cattle and goats in **Australia** during the first half of 2003.

Serological positive samples were found in domestic animals and wildlife in **Singapore,** but there were no clinical signs. BT was reported in **Taipei China** in cattle and goats following routine serological surveillance, but no animals displayed clinical signs.

India reported three outbreaks of BT in Karnataka in January 2003.

The following OIE Member Countries have reported the absence of BT outbreaks during 2003: **Australia, Bangladesh, Cambodia, Indonesia, Japan (12/2001), Malaysia, Pakistan (12/1996), Russia (1994)** and **United States of America (2002).**

OIE Member Countries that have never reported outbreaks of BT: **Republic of Korea, Laos, Malaysia, Mongolia, Myanmar, Nepal, New Caledonia, New Zealand, Philippines, Sri Lanka, Thailand, Vanuatu** and **Vietnam.**

Sheep pox and goat pox

Five outbreaks of sheep pox and goat pox were reported by **Nepal** during 2003. **India** and **Pakistan** also reported the presence of this disease. In these countries, vaccination is used as the main measure of control.

The following OIE Member Countries reported the absence of outbreaks of sheep and goat pox during 2003: **Bangladesh, Cambodia, Indonesia, Japan (1921), Laos, Mongolia (1976), Myanmar (1983), Russia (2002)** and **Sri Lanka (10/1996).**

OIE Member Countries that have never reported the presence of sheep pox and goat pox: **Australia, Republic of Korea, Malaysia, New Caledonia, New Zealand, Philippines, Singapore, Thailand, United States of America, Vanuatu** and **Vietnam.**

Classical swine fever

Classical swine fever (CSF) outbreaks were reported during 2003 in **Bhutan, Cambodia, India, Indonesia, Republic of Korea, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Russia, Thailand** and **Vietnam.**

In the **Republic of Korea,** 65 outbreaks of CSF were reported during the first half of 2003. The number of outbreaks is higher than the 13 outbreaks reported during 2002.

Russia reported four outbreaks of CSF between January and June 2003.

Vietnam is developing a control programme to establish disease free zones in the Red River Delta and in other areas of the country.

The following OIE Member Countries reported the absence of CSF during the first part of 2003: **Australia (1962), Bangladesh, Japan (12/1992), Laos, Mongolia (11/1994), New Caledonia, New Zealand (1953), Singapore (1989), Sri Lanka (06/1999), United States of America (1976)** and **Vanuatu.**

Newcastle disease

Australia declared itself free from Newcastle disease (NCD) on 26 June 2003 in accordance with the provisions of Article 2.1.15.2 of the *Terrestrial Animal Health Code*. Surveillance is continuing and compulsory ND vaccination is being introduced in all jurisdictions, except in Western Australia. There have been no further outbreaks of NCD since 27 November 2002.

During the first part of the year 2003, 630 affected premises were identified in the **United States of America** in the States of Arizona, California, Nevada and Texas. As a result of the application of quarantine and movement control inside the country, and a stamping-out policy, no new cases have been detected since 31 May 2003 and all State and Federal quarantine areas have been lifted.

In 2003, NCD outbreaks were reported in **Bangladesh, Cambodia, India, Indonesia, Republic of Korea, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Russia, Sri Lanka, Taipei China** and **Vietnam**.

In **Taipei China**, one outbreak of NCD was reported in April 2003 in the Kaoshing Prefecture.

Two outbreaks of NCD were reported in **Russia** in the Lipetsk region in May 2003.

The Republic of Korea reported 36 outbreaks of NCD from January to July 2003.

In **Vietnam**, NCD is endemic and affects poultry flocks raised in a smallholder farming system.

OIE Member Countries that reported the absence of NCD during the first half of 2003 are: **Australia (2002), Bhutan (2002), Japan (2002), Mongolia, New Caledonia, New Zealand, Singapore (2000), Thailand (1996)** and **Vanuatu**.

SELECTED LIST B DISEASES

This information on List B diseases is extracted from the animal health status reports of Member Countries prepared for the Regional Conference.

Bovine spongiform encephalopathy

Australia introduced measures to protect its national cattle population from BSE and its sheep population from scrapie.

In **Japan**, two new cases of BSE were reported in dairy farms in Wakayama and Hokkaido Prefectures in January 2003. Both diagnoses in six-year old Holstein dairy cows were made using the screening test, which was introduced by the Ministry of Health, Labour and Welfare on 18 October 2001 for all cattle slaughtered at abattoirs. One atypical BSE case was reported during October 2003 in a Holstein bullock aged twenty-three months in the Ibaraki Prefecture.

Preliminary results, using the Western blot analysis, the pattern of the glycoform and the relative protease resistance of PrP^{sc} seem to be different from those normally encountered in BSE.

Rabies

In **Indonesia**, 18 provinces are infected with rabies, one province is provisionally free (West Kalimantan) and 5 provinces have remained free from the disease (Bali, West Nusa Tenggara, Maluku, Banten and Irian Java). During 2002, 510 cases of rabies were reported and an intensive control programme was implemented in all infected areas through mass vaccination of stray dogs. During September 2003, five outbreaks were reported in dogs on Ambon Island, Maluku Province; the latter was traditionally known as a rabies-free area until June 2003 when the first cases were reported. Persons have been bitten by dogs with an incidence rate of 0.66 and human cases have been associated to these outbreaks. East Java, Yogyakarta and Central Java were declared free from rabies in 1997.

Japan has not reported any cases of rabies since 1956.

Malaysia has not reported the occurrence of rabies since 1999.

Mongolia reported outbreaks of rabies in different species (cattle, camels and dogs).

Nepal reported 327 outbreaks in multiple species.

In **Russia**, this disease is endemic and around 2,000 cases of rabies were reported in 2003 in domestic species, but especially in wildlife species.

Rabies is endemic in **Vietnam** and occurs sporadically. Three outbreaks were reported by June 2003.

The Republic of Korea reported 13 outbreaks of rabies during 2003.

Thailand reported 185 outbreaks of rabies between January and July 2003.

Tuberculosis

Australia has been free from bovine tuberculosis since 1997 and a tuberculosis (TB) freedom assurance programme has been in operation since that time. The last outbreak of TB was detected by the abattoir surveillance programme in buffaloes in early 2002 and destocking activities were completed.

The Republic of Korea reported 102 outbreaks of tuberculosis, with 717 cases in cattle during the first half of 2003.

Haemorrhagic septicaemia

Haemorrhagic septicaemia (HS) is endemic in **Indonesia** and is found in cattle and buffaloes. The number of cases of haemorrhagic septicaemia reported in 2003 was 1,177.

Nepal reported 414 outbreaks from January to July 2003. HS is located geographically in the ecozones of Hill and Tarai.

In **Vietnam**, 1,677 outbreaks were reported during the first half of 2003. It is the most significant and damaging of diseases for smallholders, causing high mortality in draught animals.

Anthrax

In **Indonesia**, anthrax is reported to occur sporadically in West Sumatra, Jambi, DKI Jakarta, West Java, Central Java, West Nusa Tenggara, East Nusa Tenggara, South Sulawesi, Southeast Sulawesi, Central Sulawesi and Irian Jaya.

Three outbreaks of anthrax were reported in **Russia** in cattle and sheep during 2003.

In **Vietnam**, the disease has been brought under control and there were no outbreaks in 2003.

No cases of anthrax were reported from the **Republic of Korea (2000)** or **Japan (07/2000)** in 2003.

Aujeszky's disease

Japan reported the occurrence of two outbreaks of Aujeszky's disease in the Gunna and Chiba Prefectures during April 2003. During 2002, five outbreaks of Aujeszky's disease were reported.

In **Russia**, six outbreaks of Aujeszky's disease were reported during the first half of 2003. During 2002, five outbreaks of the disease were reported.

CONTINGENCY PLANS FOR ANIMAL DISEASES

The Emergency Animal Disease Response Agreement provides funds in response to a disease incursion or outbreak in **Australia**. The largest animal disease simulation exercise in Australia, **MINOTAUR** took place in 2002. National preparedness for all large outbreaks of emergency animal diseases, such as foot and mouth disease, has advanced substantially since then.

Indonesia uses KIAT VETINDO as a guide for contingency plans.

Annex 1:
Monthly reports submission status in 2003

Member Countries submitting regularly monthly reports to the OIE Central Bureau	Member Countries not submitting monthly reports on a regular basis to the OIE Central Bureau	Member Countries submitting reports to the Regional Representation for Asia and the Pacific only
Australia	Afghanistan	Bhutan
India	Bangladesh	Bangladesh
Indonesia	Buthan	Cambodia
Japan	Cambodia	Laos
Republic of Korea	Democratic people's republic of Korea	Malaysia
Mongolia	Iran	Pakistan
Myanmar	Iraq	Philippines
Nepal	Laos	
New Caledonia	Malaysia	
New Zealand	Pakistan	
Russia	People's Republic of China	
Singapore	Philippines	
Sri Lanka		
Taipei China		
Thailand		
United States of America		
Vanuatu		
Vietnam		

Annex 2:
OIE Member Countries that submitted animal health status reports for the Regional Conference*

Country	Date of reception
Indonesia	10 September 2003
Russia	19 September 2003
New Caledonia	24 September 2003
Australia	26 September 2003
Japan	29 September 2003
Nepal	1 October 2003
Vietnam	7 October 2003
New Zealand	29 October 2003

* The Delegate of the United States of America to the OIE, in a correspondence dated 19 August 2003, informed the OIE that no animal health status report will be submitted to the Regional Conference, since the needed information could be obtained from weekly and monthly reports that his country submit regularly.

AUSTRALIA

1. NEW ACTIVITIES OF THE VETERINARY SERVICES
2002 and first half of 2003

Terrestrial animal production

Cattle	29.1 million
Sheep	91.2 million
Equidae	1.5 million
Swine	2.74 million
Poultry	72 million broilers
	12 million layers

Aquatic animal production (aquaculture only)

Fish	27 326 000 kg
Molluscs	44 325 000 kg
Crustaceans	4 002 000 kg

Source: ABARE (2003): Australian Fisheries Statistics 2002, Canberra.

Emergency Animal Disease Response Agreement

In March 2002 Australia's governments and livestock industries ratified a unique agreement to ensure a rapid and efficient response to emergency animal disease incidents.

The Emergency Animal Disease Response Agreement provides certainty of funding for the initial response to a disease incursion or outbreak through a partnership of the Commonwealth, State and Territory governments and major livestock industry organisations. It specifies 63 diseases classified into four categories with the share of costs between governments and industries depending on the beneficiary of control as measured against the impact on human health and socio-economic concerns, the environment and livestock production. Categorisation can be reviewed and new diseases added as circumstances change.

Exercise Minotaur

In the week beginning 8 September 2002, Australia held its largest emergency animal disease simulation, Exercise Minotaur. The exercise, in which all jurisdictions and industry took part, directly involved 1,000 players and indirectly a further 2,000.

It tested national consultative arrangements, communications, disease control policies, trade management arrangements, and relief and recovery responses.

National preparedness for any large outbreak an emergency animal disease (EAD) such as foot and mouth disease (FMD) has advanced substantially since that time. Since the exercise, governments and industry have been cooperating closely to strengthen Australia's ability to prevent and, in the worst case, respond to a large outbreak of an EAD. These activities include:

- developing new arrangements and contracts to ensure an adequate supply of FMD vaccine;
- substantially improving diagnostic capacity the CSIRO Australian Animal Health Laboratory, which in turn is training State and Territory laboratory staff in FMD diagnostic technology;
- reviewing the EAD Response Agreement (the cost-sharing agreement involving all jurisdictions and industry) to cater for the sizeable costs that might be incurred if an outbreak of FMD were to occur;
- investigating improvements to animal health information systems;
- progressing epidemiological modelling of FMD scenarios using real geographical and livestock information to explore a range of scenarios and response options to inform decision-making during an emergency response;
- planning and developing a national Rapid Response Team to assist smaller jurisdictions in EAD responses;
- negotiating an updated international agreement to source additional animal health staff to assist a country experiencing a large outbreak of an EAD;
- strengthening preventive measures such as audits of bans on swill-feeding and local control of feral animals in the States and the Territories; and
- improving awareness programmes for EADs.

National Animal Welfare Strategy

Coincident with the increasing prominence of animal welfare internationally, including the activities of the OIE, Australia is developing a National Animal Welfare Strategy. The strategy builds on Australia's strong tradition of considerate animal husbandry.

The National Animal Welfare Strategy aims to facilitate a more coherent and cohesive national approach to animal welfare in Australia across governments, the animal industries and the Australian community. The strategy embraces a broad vision for all types of animals and provides a framework for continuous improvement of animal welfare outcomes. Specific welfare action plans, including some existing activities, will sit under the overarching framework provided by the strategy.

The National Animal Welfare Strategy recognises the intimate connection that exists between animal welfare and animal health. Performance standards for animal welfare have already been established as a core component of the national animal health system in line with approaches in some other countries.

AQUAPLAN – A Five Year Review

In 1997, the Australian Commonwealth and States and Territories established the Fish Health Management Committee (FHMC) as an interim committee with the mandate to develop a comprehensive aquatic animal health plan for Australia, and to address management procedures for aquatic animal disease emergencies in particular. The resulting plan was released in 1998 as *AQUAPLAN – Australia's National Strategic Plan for Aquatic Animal Health 1998-2003*.

For the past five years, members of FHMC and their supporting agencies and industries have implemented a wide range of priority AQUAPLAN projects and fulfilled FHMC's original terms of reference. A consultative review process conducted over the calendar year 2002 led to the replacement of FHMC with a new structure, the Aquatic Animal Health Committee (AAHC), as the primary industry/government interface for policy, communication and awareness related to aquatic animal health issues. The AAHC held its inaugural meeting on 6 February 2003.

The role of the AAHC is to:

- Identify emerging aquatic animal health issues and make recommendations for policy development and management;
- Take a lead role in developing and reviewing national aquatic animal health policies and programmes;
- *Actively respond to identified resource requirements of national aquatic animal health policies and programmes;*
- Provide advice and submit recommendations to governments and other stakeholders on those issues;
- Report on strategic issues and submit recommendations relating to AQUAPLAN and its implementation to governments and other stakeholders; and
- Review communication and extension strategies on aquatic animal health issues and facilitate implementation of those strategies.

To facilitate the hand-over from FHMC to AAHC, a comprehensive review of progress towards implementation of AQUAPLAN programmes and projects was conducted and has been published as *AQUAPLAN – A Five Year Review*. This publication details the progress made against approximately 100 discrete projects; it can be downloaded from the AFFA website http://www.affa.gov.au.

Imports of fish meals and feeds

New animal health controls have been implemented for the importation of a range of products including fish meals and feeds. Bulk products containing fish meal (products packed in bags less than 16 kg are exempt) will be tested on arrival for the presence of ruminant DNA. Following is a link to a Biosecurity Australia web page on stockfeed imports with links to relevant policy documents:

http://www.affa.gov.au/content/publications.cfm?ObjectID=B9E32DC2-578D-456B-927A46F26FE2C070. Alternatively, the AQIS import conditions database www.aqis.gov.au/icon can be searched on 'stockfeed'.

2. LIST A DISEASES

Bluetongue

A number of BLU serotypes have been present in northern Australia for at least 25 years. Ongoing surveillance is conducted as part of the National Arbovirus Monitoring Programme (NAMP). Clinical disease has only been seen if susceptible sheep are introduced to the endemic area where the Culicoides spp vectors exist. Disease has not been seen in cattle and goats in Australia. No sheep are traded from the BLU endemic area of tropical and sub-tropical Australia.

Newcastle disease

There have been no further outbreaks of virulent Newcastle disease (ND) since October 2002. Australia reported to the OIE on 26 June 2003 that it is a Newcastle disease free country, according to the provisions of Article 2.1.15.2 of the *International Animal Health Code*. Surveillance is continuing and compulsory ND vaccination is being introduced in all jurisdictions except Western Australia.

3. LIST B DISEASES

Bovine tuberculosis

Australia has been internationally recognised as free of bovine tuberculosis (TB) since 31 December 1997. Due to the nature of the disease, a Tuberculosis Freedom Assurance Programme has operated since then, and includes a national abattoir surveillance programme, targeted field surveillance and a Reference Laboratory. Eradication activities are conducted on individual properties detected with TB as part of the programme. The last outbreak of TB was detected by the abattoir surveillance programme in buffalo in early 2002 and destocking activities have now been completed.

Bovine spongiform encephalopathy

Australia has well-established measures in place to protect its national cattle herd from BSE and its sheep flock from scrapie.

Australia's BSE control measures were reviewed in 2002/03, and remain under constant review in light of international developments. Through the Council of Australian Governments' processes, Australia's preparedness arrangements for large scale responses to emergency animal diseases such as BSE, have been reviewed, tested through simulated exercises and upgraded where appropriate.

Legislative changes have been enacted into State and Territory legislation that have further simplified the ruminant feeding ban. These changes prohibit the feeding of all forms of meat and bone meal to ruminants (this includes blood, fish and

poultry meals, but excludes milk, milk products, gelatin and tallow). Diagnostic capabilities for BSE have been further enhanced.

Please note: Legislation related to animal health in Australia is the legal responsibility of State and Territory jurisdictions.

Epizootic haematopoietic necrosis

Epizootic haematopoietic necrosis was reported from Victoria in January 2003 in dead redfin (*Perca fluviatilis*) in a reservoir. The disease was detected through passive surveillance. It has not been reported since this single outbreak. EHN has previously been reported from other jurisdictions (New South Wales - last year reported 2000; South Australia - last year reported 1992), but has never been found in Tasmania, in Queensland or Western Australia despite surveillance activities.

Perkinsosis (Perkinsus marinus, P. olseni/atlanticus)

Perkinsus marinus has never been reported from anywhere in Australia, despite surveillance activities. *Perkinsus olseni/atlanticus* was detected through targeted active surveillance in South Australia from January to June 2003 in wild, but not in cultured, abalone *Haliotis* spp. *Perkinsus olseni/atlanticus* has previously been reported from other jurisdictions (New South Wales - last year reported 2002; Western Australia - last year reported 1995), but has never been found in Tasmania, the Northern Territory, Queensland or Victoria despite surveillance activities.

Yellowhead disease (Yellowhead virus, Gill-associated virus)

Yellowhead virus has never been reported from anywhere in Australia, despite surveillance activities. An outbreak of peripheral neuropathy and retinopathy, a disease associated with gill-associated virus infection, was detected in *Penaeus monodon* on a monitored pond in New South Wales in May 2003. In Queensland, gill-associated virus (GAV) can be present as a chronic infection without clinical disease and is considered one of the viruses associated with Mid-Crop Mortality Syndrome and MCMS-like syndromes in farmed prawns. The lack of a clear case definition and an apparent role for mixed virus infections makes reporting of conclusive GAV-specific epizootics in Queensland impossible. GAV has never been reported in Western Australia, South Australia and Victoria despite surveillance activities.

4. OTHER DISEASES

Johne's disease

The majority of Australia's livestock herds and flocks are free of Johne's disease. Australia has a National Johnes Disease Control and Evaluation Programme for ovine Johne's Disease and has agreed a national approach to the management of bovine Johne's Disease in beef and dairy cattle.

Details of these activities are available on the Animal Health Australia website - aahc@aahc.com.au.

Viral encephalopathy and retinopathy

Viral encephalopathy and retinopathy was detected through passive surveillance by nested RT-PCR in barramundi (*Lates calcarifer*) larvae in a hatchery in Queensland in March 2003. It has not been reported since this single outbreak. VER has previously been reported from other jurisdictions (Northern Territory – last year reported 2002; Tasmania - last year reported 2000; South Australia - last year reported 1998), but has never been found in New South Wales, Victoria or Western Australia despite passive surveillance.

Epizootic ulcerative syndrome

Epizootic ulcerative syndrome was detected in Queensland by histology in silver perch (*Bidyanus bidyanus*) in February 2003, and again in an epizootic in pond-farmed barcoo grunter (*Scortum barcoo*) in April and May 2003. Epizootic ulcerative syndrome was also detected through active surveillance and confirmed by histology in New South Wales in silver perch in a research station in February 2003, and in one pond of farmed silver perch (using field level diagnosis) in June 2003. In 2002, EUS was last reported from Victoria and Western Australia in 2002. It has never been reported from the Northern Territory, South Australia and Tasmania despite passive surveillance.

INDONESIA

1. BACKGROUND INFORMATION

The need for increasing animal products has been recognised as a priority by the government of Indonesia, and is being addressed by a variety of livestock programmes, including disease control policy, importation of breeding animals, artificial insemination, embryo transfer programme, dairy development schemes, nucleus estate schemes and a variety of loan and credit schemes to small farmers to upgrade livestock production. The number of livestock by species is shown in the following table:

Table 1. Number of livestock by species during 2000-2002
('000 head)

Species	2000	2001	2002*
Beef cattle	11 008	10 215	10 436
Dairy cattle	354	347	354
Buffaloes	2 405	2 311	2 436
Sheep	7 427	7 394	7 661
Goats	12 566	12 323	13 045
Pigs	5 357	5 287	6 123
Chicken	259 256	267 042	279 802
Layer	69 366	70 210	76 016
Broiler	530 874	621 834	716 132
Ducks	29 035	32 003	33 627

Source: Statistical Books of Livestock Services, 2003
* Temporary figures

In 2002, the Directorate General Livestock Services reported the presence of diseases catogorised as economic/strategy diseases. These included two List A diseases, namely Newcastle disease (ND) and classical swine fever (CSF), seven List B diseases, namely rabies, brucellosis, anthrax, haemorrhagic septicaemia (HS), salmonellosis, infectious bovine rhinotracheitis (IBR) and infectious bursal disease (IBD), and two other diseases, namely, bovine viral diarrhea (BVD) and Jembrana disease.

The animal disease situation catgorised as an economic/strategy in Indonesia since 1998-2002 is shown in the following table:

Table 2. Animal disease status in Indonesia 2000-2002

No.	Diseases	Year		
		2000	2001	2002
1	ND	668 812	229 038	491 616
2	CSF	4 945	5 774	1 885
3	Rabies	488	378	510
4	Brucellosis	1 459	1 173	1 342
5	Anthrax	19	0	2
6	HS	4 589	2 387	1 177
7	Salmonellosis	14 990	2 234	5 223
8	IBR	0	0	53
9	IBD	32 182	1 818	10 298
10	BVD	432	691	867
11	Jembrana	109	89	183

2. LIST A DISEASES

Indonesia remained free from most major exotic notifiable diseases of farm livestock as indicated under List A-OIE, except for hog cholera (CSF) and Newcastle disease (ND).

a) Surveillance and monitoring programme

Disease surveillance for List A diseases (CSF and ND) is conducted every year in many provinces, especially for FMD, particularly in the provinces bordering with Malaysia and the Philippines, as well as Java Island, which was the source of FMD during the last outbreak in 1983. The results of yearly FMD surveillance are always negative.

b) Epidemiological situation and significant changes

The number of CSF cases reported in 2003 was 1 885 derived from the provinces of Bali, North Sumatera, South Sulawesi, South-East Sulawesi.
ND is still endemic in all larger islands in Indonesia, mainly in indigenous chicken.

c) Information on existing control and/or eradication programmes

To enhance effective control of the disease, routine vaccination is conducted during an epidemic and the government produces CSF (local strain) and ND vaccine.

d) Contingency planning

Indonesia uses KIAT VETINDO as a guide for contingency planning.

3. LIST B DISEASES

a) Surveillance and monitoring programme

Surveillance is directed to study the impact of endemic diseases. The diagnosis laboratories have an essential role to conduct surveillance of animal health and production problems of national concern. Two

types of surveillance are being carried out to monitor diseases, namely, active surveillance where laboratory staff visit farmers to monitor the health status, and passive surveillance conducted through form E1 (District Livestock Services) and E 29 (Animal Health Laboratory).

b) Epidemiological situation and significant changes

- **Anthrax**
  Anthrax is reported sporadically in West Sumatra, Jambi, DKI Jakarta, West Java, Central Java, West Nusa Tenggara, East Nusa Tenggara, South Sulawesi, Southeast Sulawesi, Central Sulawesi and Irian Jaya. The control programme against the disease is implemented through vaccination in infected areas. In 1999, an outbreak of anthrax occurred in West Java, which attacked ostriches. In order to prevent the spread of the disease, all live ostriches were destroyed and the farm was closed and prohibited from any activities. Cloven-hooved animals in surrounding areas were vaccinated. Two cases of anthrax were reported in 2002.

- **Rabies**
  At present, of a total of 28 provinces, 18 provinces are infected with rabies, one province is provisionally free (West Kalimantan) and 5 provinces have remained free from the disease (Bali, West Nusa Tenggara, Maluku, Banten and Irian Java). East java, Yogyakarta and Central Java were declared free from rabies in 1997. The number of rabies cases reported in 2002 was 510.
  An intensive control programme against rabies is implemented in all infected areas through mass vaccination and elimination of stray dogs. The control programme was initiated in 1989 in Java and Kalimantan islands. The programme was then extended to Sumatra and Sulawesi islands in 1994. It is expected that in the year 2005, clinical cases of rabies can be reduced to zero in all affected areas. Bilateral cooperation with the Government of Malaysia is being conducted to control rabies in the border areas.

- **Bovine brucellosis**
  Most provinces in the country have been affected by the disease. A serological survey carried out in 1997 indicated that a high prevalence of brucellosis is found in West Timor and South Sulawesi. A low prevalence is reported in new livestock development (transmigration) areas in Kalimantan and Sumatra islands. In Java, brucellosis is reported in dairy cattle. The control programme in high prevalence areas is conducted through vaccination and strict movement control of animals, whereas the test-and-slaughter method is applied in low prevalence areas. The government is now implementing a brucellosis eradication programme by gradually clearing the infection island by island or the localised area. The number of brucellosis cases reported in 2002 was 1 342.

- **Haemorrhagic septicaemia**
  Haemorrhagic septicaemia is endemic in the country. The disease is mostly found in cattle and buffaloes. The control programme aimed at reducing the seasonal incidence of haemorrhagic septicaemia is carried out by means of vaccination and antibiotic treatment of sick animals. The number of cases of haemorrhagic septicaemia reported in 2002 was 1 177.

- **Infectious bovine rhinotracheitis/infectious pustular vulvovaginitis (IBR/IPV)**
  Typical clinical cases of the disease are hardly ever observed in cattle in the field in Indonesia, although some serological cases were reported in some provinces. Fifty-three cases were reported in 2002 from the Riau and Jakarta provinces.

- **Infectious bursal disease (Gumboro disease)**
  The disease occurred predominantly in commercial farms (broiler and layer). The control programme for the disease is conducted through sanitation, monitoring and surveillance as well as vaccination. Local isolates have been successfully obtained and are being used to produce vaccines to protect the chicken population in the country. The number of cases reported in 2002 was 10 298.

- **Pullorum disease**
  The distribution of pullorum disease includes the provinces of Aceh, North Sumatra, Bengkulu, Lampung, East Nusa Tenggara, South Sulawesi and South-East Sulawesi. The number of cases reported in 2002 was 5 223.

- **Mucosal disease/bovine virus diarrhoea**
  Bovine virus diarrhoea is endemic in some provinces, including Bali, West Nusa Tenggara, East Java, South Sulawesi, South-East Sulawesi, Central Sulawesi, Bengkulu, Riau and Lampung. The number of cases reported in 2002 was 867.

- **Jembrana disease**
  Jembrana disease occurs only in Indonesia and affects solely Bali cattle (Bos zomdaicus). In the past, the disease occurred only in some districts in the province of Bali. Currently, it is found to have spread to the transmigration area. The cause of the disease is a virus belonging to the family of Retroviridae and subfamily of Lentriviridae. Research on the technical improvement of the production of Jembrana vaccine is still being conducted by the Bali Cattle Disease Investigation Unit (BCDIU). The number of cases of Jembrana disease reported in 2000 was 183.

c) Information on existing control and/or eradication programmes
Some animal diseases present in the country are hampering the rapid growth of the livestock industry. The government has established priorities for disease control, based on the epidemiological status and economic impact on production. Efforts are concentrated on infectious diseases, known as 11 strategic diseases, as well as exotic diseases.

d) Contingency planning
Indonesia uses KIAT VETINDO as a guide for contingency planning.

JAPAN

1. ACTIVITIES OF THE VETERINARY SERVICES
First half of 2003

In order to promote administration, which should increasingly take the consumer into account, the 'Food Safety and Consumer Affairs Bureau' was established on 1 July 2003. The Veterinary Services of Japan was established in this bureau as the 'Animal Health and Animal Products Safety Division'. It is responsible for ensuring the basis of the livestock-fisheries industry and food safety in the production process through the promotion of animal health.

2. ANIMAL POPULATIONS

Category of livestock	Approximate number of animals
Cattle	4 564 000
Sheep	12 100
Goats	21541
Equidae	21 775
Cervidae	4 954
Swine	9 612 000
Birds	177 444 000
Rabbits/hares	20 616

3. INFORMATION ON LIST A AND LIST B DISEASES

See the attached sheets.

4. INFORMATION ON BSE

□1) Outbreak on 20 January 2003

A six-year and eleven-month old Holstein cow born in the Hokkaido Prefecture and then transferred to a dairy farm in the Wakayama Prefecture was slaughtered at the abattoir on 17 January 2003. As the brain sample from the cow tested positive to the ELISA-based BSE screening test required by the Ministry of Health, Labour and Welfare for all cattle slaughtered at abattoirs from 18 October 2001, the brain sample was sent to the National Institute of Infectious Diseases for a confirmatory diagnosis using the Western blot analysis and immunohistochemical examination with a positive result on 20 January 2003.

Total number of animals in outbreaks

Species Code	Total number of animals in outbreaks				
	susceptible	cases	deaths	destroyed	slaughtered
ovi	28	1	0	0	1

Control measures

- movement control,
- identification of all animals that were kept with the infected cow,
- epidemiological investigation of the feed used on the farm for the possible source of infection.

2) Outbreak on 23 January 2003

A six-year and nine-month old Holstein cow born and kept on a dairy farm in the Hokkaido Prefecture was slaughtered at the abattoir on 21 January 2003. As the brain sample from the cow tested positive to the ELISA-based BSE screening test required by the Ministry of Health, Labour and Welfare for all cattle slaughtered at abattoirs as from 18 October 2001, the brain sample was sent to the Obihiro University of Agriculture and Veterinary Medicine for a confirmatory diagnosis using the Western blot analysis and immunohistochemical examination with a positive result on 23 January 2003.□

□□

Total number of animals in outbreaks

Species Code	Total number of animals in outbreaks				
	susceptible	cases	deaths	destroyed	slaughtered
ovi	7	1	0	0	1

Control measures

- movement control,
- identification of all animals that were kept with the infected cow,
- epidemiological investigation of the feed used.

Animal Health Report (January- June 2003)

List A Diseases	Number of cases or see below*						Comment Numbers
	Month						
	Jan	Feb	Mar	Apr	May	Jun	
1. Foot and mouth disease (A, O, C, Asia-1)	-	-	-	-	-	-	
2. Rinderpest	-	-	-	-	-	-	
3. Peste des petits ruminants	0000	0000	0000	0000	0000	0000	
4. Contagious bovine pleuropneumonia	-	-	-	-	-	-	
5. Bluetongue	-	-	-	-	-	-	
6. Sheep pox and goat pox	-	-	-	-	-	-	
7. Classical swine fever	-	-	-	-	-	-	
8. Highly pathogenic avian influenza	-	-	-	-	-	-	
9. Newcastle disease	0	0	0	0	0	0	
10. Other List A disease	-	-	-	-	-	-	
List B Diseases							
1. Aujeszky's disease	0	0	0	2	0	0	□
2. Leptospirosis	10	3	2	7	12	7	
3. Rabies	-	-	-	-	-	-	
4. Haemorrhagic septicaemia	0000	0000	0000	0000	0000	0000	
5. Bovine tuberculosis	-	-	-	-	-	-	
6. Bovine brucellosis	-	-	-	-	-	-	
7. Enzootic bovine leukosis	25	24	26	28	34	41	
8. IBR/IPV	4	87	48	20	36	36	
9. Caprine arthritis/encephalitis	0	0	1	0	0	0	
10. Contagious caprine pleuropneumonia	0000	0000	0000	0000	0000	0000	
11. Ovine pulmonary adenomatosis							
12. Maedi-visna	0000	0000	0000	0000	0000	0000	
13. Scrapie	-	-	-	-	-	-	
14. Contagious equine metritis	-	-	-	-	-	-	
15. Japanese encephalitis	-	-	-	-	-	-	
16. Equine infectious anaemia	-	-	-	-	-	-	
17. Equine influenza	-	-	-	-	-	-	
18. Equine rhinopneumonitis	0	0	0	4	5	0	
19. Glanders	-	-	-	-	-	-	
20. Equine viral arteritis	0000	0000	0000	0000	0000	0000	
21. Transmissible gastroenteritis	200	0	0	0	0	0	
22. Infectious bursal disease (Gumboro	0	0	0	0	350	0	
23. Marek's disease	722	1221	8	115	595	81	
24. Rabbit haemorrhagic disease	-	-	-	-	-	-	
25. Fish diseases of importance							
26. Other diseases of importance							
27. Bovine Spongiform Encephalopathy	2	0	0	0	0	0	□

• If the number of cases is not known, please use the following signs:
Yes
\+ Diseases reported or known to be present

**Existence of effective surveillance system
System exists

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

	Disease status [a]						Comment Numbers
Diseases prevalent in some parts of the region	Month						
Finfish diseases	Jan	Feb	Mar	Apr	May	Jun	
1. Epizootic haematopoietic necrosis*	0000	0000	0000	0000	0000	0000	
2. Infectious haematopoietic necrosis*	□	□	□	□	□	□	
3. *Oncorhynchus masou* virus disease*	□	□	□	□	□	□	
4. Viral haemorrhagic septicaemia*	□	□	□	□	□	□	
5. Infectious pancreatic necrosis	□	□	□	□	□	□	
6. Viral encephalopathy and retinopathy	□	□	□	□	□	□	
7. Epizootic ulcerative syndrome (EUS)	□	□	□	□	□	□	
8. Bacterial kidney disease	□	□	□	□	□	□	
9. Red sea bream iridoviral disease	□	□	□	□	□	□	
Mollusc disease							
1. Bonamiosis (*Bonamia* sp., *B. ostreae, M. roughleyi*)*	0000	0000	0000	0000	0000	0000	
2. Marteiliosis (*Marteilia refringens, M. sydneyi*)*	0000	0000	0000	0000	0000	0000	
3. Microcytosis (*Mikrocytos mackini*)*	0000	0000	0000	0000	0000	0000	
4. Perkinsosis (*Perkinsus marinus, P. olseni/atlanticus* [c])*	0000	0000	0000	0000	0000	0000	
5. MSX disease (*Haplosporidium. nelsoni*) *							3
Crustacean disease							
1. Yellowhead disease*	0000	0000	0000	0000	0000	0000	
2. White spot disease(YH virus;gill-associated virus)*	□	□	□	□	□	□	
3. Taura Syndrome*	0000	0000	0000	0000	0000	0000	
4. Infectious hypodermal and haematopoietic necrosis	0000	0000	0000	0000	0000	0000	
5. Spawner-isolated mortality virus disease	0000	0000	0000	0000	0000	0000	
Diseases presumed exotic to the region, but reportable to the OIE.							
Finfish diseases							
1. Spring viraemia of carp*	0000	0000	0000	0000	0000	0000	
Any other diseases of importance [b]							
1.Epitheliocystis	□	□	□	□	□	□	
2. Marteilioides infection(*Marteilioides chungmuensis*)	□	□	□	□	□	□	
Unknown diseases of serious nature							
1.Koi mass mortality	0000	0000	0000	0000	0000	0000	
2.Akoya oyster disease	□	□	□	□	□	□	

b/ In particular, these include the following diseases:
Finfish: Channel catfish virus disease; Infectious salmon anaemia; Piscirickettsiosis; Epitheliocystis; Gyrodactylosis (*Gyrodactylus salaris*);Enteric septicaemia of catfish; White sturgeon iridoviral disease; Grouper iridoviral disease
Molluscs: Withering syndrome of abalones(*Candidatus Xenohalitis californiensis*); SSO disease(*Haplosporidium costale*);□Marteilioides infection(*Marteilioides chungmuensis*)
Crustaceans: Tetrahedral baculovirosis (*Baculovirus penaei*); Crayfish plague (*Aphanomyces astaci*); Necrotising hepatopancreatitis; Baculoviral midgut gland necrosis
c/ Although *Perkinsus olseni* and *P.altanticus* are now considered conspecific, they may have different host species in different regions and countries are encouraged to provide epidemiological comments where either of these agents occur.

* OIE notifiable diseases

a/ Please use the following symbols:

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

Comment No.	
1	Two outbreaks of Aujeszky's disease were reported in the Gunma and Chiba Prefectures in April.
2	Two outbreaks of BSE were reported in dairy farms in the Wakayama and Hokkaido Prefectures in January.
3	Haplosporidium nelsoni was detected at 2% positive in Pacific oyster (Crassostres gigas) spats collected from the north-eastern part of Japan. However, mortality or disease of the Pacific oyster associated with H. Nelsoni has not been reported at all. Therefore, the symbol is not described in the section on Halosporidiosis in this report.
4	
5	
6	
7	
8	

NEPAL

1. ACTIVITIES OF THE VETERINARY SERVICES

As a prerequisite for the successful accession of nepal to the world trade organization (wto) and meaningful integration of this country in international livestock trade, a report has been prepared and submitted to the concerned authorities for the implementation of sps/tbt measures related to products of animal origin in the nepalese context.

The meat inspection and slaughterhouse act has been enacted for the first time in the hetauda municipality.

The following acts have been drafted for regulating veterinary drugs and feed quality control in line with the *oie international animal health code.*

I. veterinary drug act
II. animal feed act

A national strategy for aquatic animal health management has been developed with the involvement of naca and endorsed by the technical committee. it has been forwarded to the national planning commission for approval.

Standard formats for individual farm fish disease investigation and monthly fish disease reporting were developed and adopted. a standard format for bee disease reporting was developed and it has been used for epidemiological reporting.

Livestock population, Nepal, 2002

CATEGORY OF LIVESTOCK	POPULATION
Cattle	**6 979 000**
Milking cows	853 000
Buffaloes	**3 701 000**
Milking buffaloes	959 000
Sheep	**840 000**
Goats	**6 607 000**
Swine	**934 000**
Chicken	**21 370 000**
Ducks	**409 000**

2. LIST A DISEASES

The epidemiological data of OIE List A diseases is presented in Table 1. The epidemiological, clinical and serological surveillance reports indicate that Nepal is free from rinderpest disease and infection in 2002 and the first half of 2003.

Among OIE List A diseases, foot and mouth disease (FMD) seems to be the most important livestock disease affecting multiple species in Nepal. The epidemiological trend of FMD outbreaks during the last five years clearly demonstrates that the current practices of selective FMD vaccination in dairy pocket areas and post-outbreak ring vaccination in some districts have no significant effect on the overall FMD situation in the country. There were massive outbreaks of FMD in the second quarter of 2003 causing high mortality in cross-bred dairy cattle and buffaloes. FMD virus type O, genotypes 'PANASIA' and 'IND2001' were responsible for epidemic outbreaks of FMD in recent months.

Peste des petits ruminants (PPR) was reported in four new districts in 2002. It indicates that there is an intensive movement of small ruminants across the country. The distribution of goats without PPR vaccination in hill districts may be a determining factor for the spread of PPR in virgin areas.

The scenario of poultry diseases is similar to previous years. Newcastle disease was a major OIE List A poultry disease reported during 2002-2003.

3. LIST B DISEASES

The epidemiological data of oie list b diseases is presented in table 1. haemorrhagic septicaemia appeared to be important in hill and tarai ecozones. gumboro disease was reported in commercial poultry farms despite regular vaccination.

4. OTHER DISEASES

Epizootic ulcerative syndrome (EUS) was the only disease affecting commercial fish farms in Nepal. Finfish diseases are of regional importance in south asia. it was reported throughout the year except for the third quarter.

European foul brood, varroosis, thai sac brood and acariosis were major bee diseases reported during 2002 and the first half of 2003.

TABLE 1
Central Epidemiology Unit
Directorate of Animal Health
Tripureswor, Kathmandu

National Animal Disease Status, 2003 (Jan-June), Nepal

OIE CODE	DISEASE	SPECIES AFFECTED	NO. OF OUTBREAKS	NO. OF AFFECTED	NO. DEAD	NO. VACCINATED
A010	Foot and mouth disease	Multiple*	761	31 651	500	82 532
A040	Rinderpest	Cattle/Buffalo	0	0	0	0
A050	Peste des petits ruminants	Goat/Sheep	196	2 755	325	1 304 626
A100	Sheep and goat pox	Sheep/Goat	5	21	0	0
A130	Classical swine fever	Pig	12	105	55	840
A160	Newcastle disease	Poultry	85	1 688	49	0
B051	Anthrax	Cattle/Buffalo	5	13	9	835
B058	Rabies	Multiple**	327	135	135	8 289
B102	Babesiosis	Cattle/Buffalo	51	96	0	0
B109	Haemorrhagic septicaemia	Cattle/Buffalo	414	2 990	319	203 759
B111	Theileriosis	Cattle/Buffalo	9	27	0	0
B306	Fowl cholera	Poultry	44	1 895	231	0
B307	Fowl pox	Poultry	112	12 221	213	13 053
B308	Fowl typhoid (S. gallinarum)	Poultry	22	8 741	334	0
B309	Infectious bursal disease	Poultry	96	36 841	7548	89 239
B310	Marek's disease	Poultry	13	250	13	1 000
B313	Pullorum disease	Poultry	38	664	152	0

* Cattle, buffaloes, sheep, goats, pigs

**Dogs, cattle, buffaloes, sheep, goats, pigs, horses

NEW ZEALAND

1. ACTIVITIES OF THE VETERINARY SERVICES

The Ministry of Agriculture and Forestry (MAF) has undertaken several new initiatives to expand its sources of surveillance information, which are as follows:

- In October 2002, MAF increased the incentives offered for its transmissible spongiform encephalopathy (TSE) surveillance programme, and changed to a system of direct payment to farmers and veterinarians.
- In November 2002, a slaughterhouse based survey of sheep and deer was initiated. This work is continuing in 2003 and has been expanded, with targets of 3,000 sheep and deer each from slaughterhouses and 300 each from the field.
- In December 2002, MAF commissioned a three-year pilot sentinel veterinary practices survey employing electronic, hand held, animal health data collection systems.
- In May 2003, MAF launched a three-year research programme to investigate and develop a wildlife disease surveillance framework for New Zealand, including recommendations for priority new initiatives, and enhancements to existing systems.
- In June 2003, MAF began its collaboration with Massey University's Epicentre to develop information systems to assist with decision-making on investments into animal disease surveillance.

2. LIST A DISEASES

New Zealand remains free from all of the List A diseases.

3. LIST B DISEASES

No outbreaks of the List B diseases which are exotic to New Zealand have occurred.

4. OTHER DISEASES

Nothing to report.

VIETNAM

1. ACTIVITIES OF THE VETERINARY SERVICES

1.1 Introduction

Vietnam is located in the East of Indochina Peninsula with an area of 332.000 km^2 bordered with China to the north, Laos and Cambodia to the west with a 3,730 km long border. In 2002, its population increased to 78 million inhabitants.

The weather in Vietnam is quite different from the north to the south. In the north, there are four seasons, whereas in the south there are only two seasons: dry and rainy seasons. The country has a long coastline and thus experiences several strong typhoons every year, causing considerable damage in terms of crop cultivation and animal production. Vietnam has a long border with Laos, China, Cambodia, causing extreme difficulties for the management of animal movement and the control of animal diseases.

As an agricultural country with seven agricultural economic regions, agricultural production represents an important share of GDP. Livestock production plays a crucial role. In 2002, the share of the livestock sector in gross agricultural output was 30%.

Animals are classified according to their productivity based on economic outputs; pigs, cattle, buffaloes and poultry.

In recent years, the susceptible animal population has increased steadily.

(Unit = one thousand)

Year	Buffalo	Cattle	Pigs	Goats/Sheep	Poultry
1995	2 996	3 639	16 306	0,550	142,1
1996	2 954	3 800	16 921	0,513	151,4
1997	2 943	3 905	17 636	0,515	160,6
1998	2 951	3 984	18 132	0,514	166,4
1999	2 900	4 100	18 800	0,470	179,3
2000	2 960	4 150	19 500	0,475	185,0
2001	2 950	4 200	21 000	0,480	220,0
2002	2 962	4 320	21 250	0,484	222,0
2003	2 955	4 335	23 170	0,612	233,3

Livestock Production in 2003:

- Cattle production increased by 15 000 head
- Dairy cow population reached 10 000 head
- Pig population increased by 1 500 000 head
- Poultry population increased by 35 million
- Animal live weight reached 2 million tons
- Pig live weight accounted for 1,5 million tons
- Fresh milk reached 60 000 tons

In applying the zoning approach for FMD control, Vietnam is carrying out the first step to set up disease free zones: the Red River Delta area was selected for the establishment of the FMD free zone. All provinces in the area have developed their own plans to be compatible with the regional plan. Provinces around the area, including some provinces sharing international borders with China and Lao PDR are included in the Buffer Zones. In the South of Vietnam where FMD outbreaks occurred recently; Control Zones will be established.

In co-operation with the OIE, Vietnam has drafted its own National FMD Control Plan that has been re-submitted to the Government for approval.

It is considered that international co-operation and co-ordination are an essential part in the control of trans-boundary animal diseases. On 6 and 7 August 2003, a meeting between the Vietnamese and Laos Veterinary Authorities was held in Bolikhamxay, Lao PDR. An important agreement was reached at the meeting with regard to strengthening the system of animal check-points at borders between Vietnam and Lao PDR.

Major attention was paid to controlling the movement, both legal and illegal, of animals and animal products from China to Vietnam.

Coordination between the JICA Project, NIVR, DAH held the Regional Workshop on the Control of Classical Swine Fever in Southeast Asia, 25- 26 September 2003.

2. LIST A DISEASES

2.1 Current foot and mouth disease status

It was recorded that FMD has been known to occur in Vietnam since 1898. Since then, sporadic outbreaks have occurred during the rainy seasons in the south, mostly in provinces that share borders with Cambodia. No outbreaks were reported in the north during the period from 1960 to 1998. However, in 1999, the north was again affected with FMD. FMD is present in some provinces bordering with China.

From January 2003 to date, several FMD outbreaks occurred sporadically in some provinces that are in the old outbreak area or that share borders with Cambodia and China. The current FMD status is summarised in table 1 below:

FMD situation from January to August 2003

Month	Provinces infected	Total new outbreaks	Total outbreaks	Species infected	Virus strain	No. of infected	No. of deaths
January 2003	Dak lak	0	1			7	0
	Binh Thuan Phu	0	1	Bov	O	11	0
	Yen	1	1			25	0
February 2003	Binh Thuan	0	1	Bov	O	0	0
	Phu Yen	1	2		O	33	0
	Dak lak	1	2			25	0
March 2003	Phu Yen	0	1	Bov	O	5	0
	Dak Lak	0	1			8	0
	Dak Lak	1	1		O	15	1
April 2003	Dak Lak	0	1	Bov	O	8	0
May 2003	Dak Lak	1	2	Bov	O	7	0
June 2003	Dac Lac	0	1	Bov	O	3	0
	Binh Thuan	1	1	Bov	O	12	0
July	Binh Thuan	0	1	Bov	O	5	0
	An Giang	1	1	Bov	O	8	1
	Ha Giang	1	1	Bov	O	15	1
August	An Giang	0	1	Bov	O	2	0
	Ha Giang	0	1	Bov	O	18	1
	Ha Giang	1	1	Bov	O	23	1

2.2 Information on List A diseases

No.	Disease	Jan	Feb	Mar	Apr	May	Jun
	List A						
1	Foot and mouth disease	43	58	28	8	7	15
2	Classical swine fever	947	1 269	1 295	896	718	675
3	Newcastle	5 796	3 919	9 383	2 036	3 528	5 670

Foot and mouth disease (FMD):

FMD was detected in Vietnam over 100 years ago. In the North, the disease has been eradicated for 38 years, but in 1999, some FMD outbreaks were reported in some border provinces. The origin of infection is animals smuggled in from China. In the south, this disease is a constant threat in the border region with Cambodia.

FMD is the most important disease that the DAH has to handle, as it causes considerable economic losses and inhibits Vietnam from exporting meat and animal products to various countries. Mass vaccination in the border area and ring vaccination around outbreaks are used as methods of control.

Classical swine fever

Although CSF is not an epidemic in Vietnam, it is endemic throughout the country. Although CSF, as well as pasteurellosis, occurs with a low morbidity rate, i.e. approximately 0.07%, it is extensive and severe enough to slow down the development of a modern pig industry in Vietnam. There are two mass vaccination campaigns each year. Recently, an international workshop on CSF control was held by JICA - SNIVRVietnam.

Newcastle disease

Newcastle disease is a disseminated disease of poultry, in particular poultry flocks that are raised in a smallholder farming system. The disease is an endemic infectious disease throughout Vietnam, and occurs particularly in the winter and spring seasons, killing a significant number of poultry with a mortality rate of about 8-10%.

3. LIST B DISEASES

No	Disease	Jan	Feb	Mar	Apr	May	Jun
	List B						
1	Haemorrhagic septicaemia	46	821	219	272	160	159
2	Leptospirosis	54	28	34	4	144	22
3	Rabies	1	1	0	0	1	0
4	Gumboro disease	1 166	537	1 391	813	2 352	6 295

Haemorrhagic septicaemia

Haemorrhagic septicaemia is the most common disease of cattle in Vietnam. It is the most significant and damaging of diseases for smallholders, causing high mortality in draught animals. While the infected rate is approximately 0.2%, the mortality rate for the total cattle and buffalo flocks is 0.16%. The disease has not become an epidemic, but occurs in a sporadic form in almost all the provinces during the year.

Anthrax

Before 1990, anthrax was a particularly common disease in the provinces bordering on China, where it is thought infected animals originate; however, the disease has now been controlled.

Leptospirosis

Leptospirosis occurs sporadically in several zones. The disease sometimes develops as an endemic disease, causing waste of meat and occasionally spread to humans.

Rabies

Rabies is endemic and of national concern as a zoonosis. Some rabies outbreaks occur sporadically throughout Vietnam, threatening public health. Governmental Directive No. 92 provides instructions on the improvement of vaccination coverage to reduce the number of outbreaks. A project proposal on rabies control has been drafted jointly by the Ministry of Health and the Ministry of Agriculture and Rural Development. However, approval has not yet been obtained.

Infectious bural disease (Gumboro)

Infectious bural disease occurs sporadically in several zones. The disease sometimes develops to become endemic.

4 ANIMAL DISEASE CONTROL

Foot and mouth disease, anthrax, rabies and classical swine fever are considered to be the four most important diseases of animals in Vietnam. Currently, FMD control is carried out in coordination with the OIE SEAFMD and the framework programme for the 2001-2004 period is being undertaken. Anthrax has been brought under control and there have been no outbreaks since the beginning of 2003. Rabies is present sporadically thanks to effective vaccination. Regarding CSF, a control programme is being developed towards the establishment of disease free zones in the Red River Delta and in some other areas of the country.

5. INTERNATIONAL COOPERATION

Vietnam, through the Department of Animal Health (DAH), has been a member of the OIE since 1991 and established diplomatic cooperation with the Association of South-East Asian Nations (ASEAN), European Union (EU), Food and Agriculture Organization of the United Nations (FAO), World Health Organization (WHO), Japanese International Cooperation Agency (JICA), International Atomic Energy Agency (IAEA) by operating the SVSV Project (EU-Vietnam), Thailand/JICA Project, etc.

FMD is considered as one of the most important diseases in Vietnam. With the effective assistance of the Regional Coordination Unit (RCU), the DAH Vietnam has drawn up a strategic framework plan for National Foot and Mouth Disease control in Vietnam from 2001 – 2004.

There are some Agreements on International Veterinary Cooperation between DAH of Vietnam and veterinary organisations of foreign countries, such as Russia, Argentina, Korea, Bulgaria, Mongolia, Australia, Chile, etc.

In addition, some annual international cooperative programmes on the development of DAH's human resources and techniques are operating well, such as MTCP (Malaysia), Corhan (USA), DSE (Germany), etc.

23rd Conference of the
OIE Regional Commission for Asia, the Far East and Oceania

25 – 28 November 2003
Noumea

OIE Strategic Plan 2005 – 2010

Purpose

1. To inform members of the OIE Regional Commission for Asia, the Far East and Oceania of the strategic planning process and key issues for inclusion in the 4th OIE Strategic Plan and to seek member comment.

Background

2. The third OIE Strategic Plan was adopted by the International Committee in 2000 and expires in 2005. It is now necessary to develop a 4th Strategic Plan for the period 2005 – 2010.

3. Consultation with Regional Commissions and Specialist Commissions is a vital part of the development process. At the suggestion of the Director General of the OIE, members of the Bureau of the Regional Commission formed a Working Group to begin this process of consultation.

4. The Working Group met on Monday, 24 November 2003. Members were:
   - Dr Gardner Murray (President)
   - Dr Shubh N. Mahato (Vice President)
   - Dr Jose Q. Molina (Vice President)
   - Dr Barry O'Neil (Secretary General)
   - Dr Teruhide Fujita (Regional Representative).

   The following observers also attended:
   - Dr Bernard Vallat (Director – General, OIE)
   - Dr Jean Boyazoglu (Head, Regional Activities, OIE)
   - Dr John Edwards (OIE SEAFMD RCU)
   - Dr Derek Belton (Director, Animal Biosecurity, NZ)
   - Dr Andrew McKenzie (NZ)
   - Dr Jill Mortier (Australia)

5. Dr Vallat reported on progress with the 3rd Strategic Plan. He outlined the process for preparing the 4th Strategic Plan and proposed certain policy directions for the period of the plan. A summary of his report is attached.

Issues

6. The Working Group identified several key issues in three broad areas – general, resource and specific issues for the work plan.

   General Issues
   a) OIE must retain its focus on core activities (animal health information, standard setting, one of "the three sisters" of the WTO SPS Agreement) and maintain its relevance to Member Countries;
   b) The need to decide whether the 3rd Strategic Plan requires fine-tuning or whether a large change in direction is required;

c) The challenge of meeting the needs of all Member Countries, both developed and developing;
d) The need to consider risks to the OIE – the organisation must retain credibility and avoid overcommitment;
e) Interaction of OIE with other international organisations:
    - Complementing not competing (arranging joint Regional Meetings where possible)
f) Roles and responsibilities need to be clear so as to avoid duplication;
    - What is the strategic role of the Regional Commission and how does it link to the work of the Regional Representation?
    - The Strategic Plan should identify what the Regions will be working on;

Resource Issues

g) Need to increase funding from private sources while maintaining independence;
    - Potential to allow for sponsorship of development of certain standards;
    - Donations from private individuals;
    - Projects with World Bank etc;
h) Can increase efficiency of operations (e.g. by running meetings back-to-back);
i) Targeting the poorest countries benefits everyone;
j) Encourage all countries to pay membership fees;
    - Possibly introduce new membership categories;
k) More sustainable funding mechanisms are required for the Regional Commission and the Regional Representation;

Specific Issues for Workplan

l) Animal identification
m) Transparency and a risk-based approach in OIE operations:
    - How to improve these aspects without compromising timeliness;
n) Strengthen compliance with standards, in particular veterinary services and veterinary ethics;
o) Capacity building including training of delegates;
p) Involvement of PR China;
q) Harmonising electronic certification;
r) SEAFMD transfer to ASEAN;
s) Establishment of Sub-Regional offices and a Regional Steering Committee:
    - Will involve Regions in concrete action and policy development.

Recommendation

That Members NOTE the outcomes of the meeting of the Working Group on the 4th OIE Strategic Plan and provide comment on the issues raised. It is intended that this issue be discussed again at the Regional Commission meeting in May.

4th OIE Strategic Plan

2005-2010

1- PREPARATION PROCEDURES

in 2003:	consultation of the Regional Commissions and Specialist Commissions.
March 2004:	presentation of proposals to the Administrative Commission.
May 2004:	presentation of a preliminary overview to the International Committee and collection of initial reactions.
end of 2004:	extraordinary meeting of the Administrative Commission and preparation of a draft text with the aid of a consultant.
February 2005:	adoption of the draft text by the Administrative Commission.
May 2005:	presentation of the draft text to International Committee for adoption.

2- POLICY DIRECTIONS PROPOSED BY THE DIRECTOR GENERAL

2.1. Consolidation and development of the new programmes undertaken within the framework of the 3rd Strategic Plan.

2.1.1. Horizontal issues

- Recruitment of new Member Countries (12 new Member Countries since 2000).
- Improved recovery of contributions (approx. +25% already achieved in 2003 comparing to 2000).
- Increase in voluntary contributions (approx. 10% increase since 2000).
- Negotiation of new agreements with international and regional organisations or updating of existing agreements (12 new or updated Agreements have been signed since 2000).
- Mobilisation of the international financial community to support the Veterinary Services of developing countries.
  Already achieved: signing of an Agreement with the World Bank, recognition of the Veterinary Services as an 'International Public Good'; creation, along with the WTO, the World Bank, the FAO and the WHO, of the Standards and Trade Development Facility, notably aimed at supporting the Veterinary Services of developing and transition countries that are

members of the OIE. Participation of the OIE on the management of this Fund.
Funding obtained from the European Union to facilitate the participation of scientists from developing countries in the work of the OIE.

- Improvement of staff management policies applied at the Central Bureau and in the Regional Representations (RR).
  Already achieved: introduction of merit bonus systems.
  Problem outstanding: competitiveness of OIE salaries compared to those of the United Nations (on average, 20% lower at the OIE).

- Greater transparency at all levels.

  Computer-based tools being a powerful factor in transparency, a five-year master plan for computer systems is currently being prepared. It will have to be fully integrated into the new Strategic Plan and the necessary financial resources obtained.

2.1.2. Relations with other International Organisations, notably the WHO and the FAO

- New Agreements have already been signed or are due to be signed shortly. Implementation of these agreements will require the political involvement of all the Member Countries, notably to inform the various Ministries involved in supervising these Organisations. Their implementation involves not only the Central Bureau and the Member Countries but also the RR, which have an essential role to play in representing the OIE on the 'Steering committee' with FAO and other relevant organisations of each of the 5 regions (provided for within the framework of the new Agreements).

2.1.3. New areas of activity

- Animal welfare: adoption of new standards for the *Terrestrial Code* within the framework of the system already in place.

- Animal production food safety: to develop new standards for inclusion in the *Terrestrial Code* and the *Terrestrial Manual* for all pathogens and contaminants that are dangerous for humans even if they have no visible effects on animals.
  This objective will pose major problems in terms of the OIE's position with respect to the Codex Alimentarius Commission. A major political involvement of the Delegates of OIE Member Countries will be essential. This should be clearly set out in the 4th Strategic Plan.

- International Convention on Biodiversity: the OIE must continue to be involved in the field of international trade of GMO-derived animal vaccines and the risks of introducing undesirable living organisms (restricted to potential vectors of animal diseases).

- Geneva Convention on biological weapons and international security organisations (Interpol): the OIE's participation will have to be maintained and strengthened given the current international environment, but new resources will be needed.

2.1.4. Animal disease information

- The updating of disease lists and reporting procedures is at an advanced stage and will be implemented in 2005.
  The 'active' search systems for animal disease information and geographical information systems are currently being developed. Their optimal use will depend upon the adoption and implementation of the new computer systems master plan to be integrated into the new Strategic Plan.

2.1.5. International trade

- The International Trade Department has been considerably strengthened so as to update the *Terrestrial Code* standards more quickly.
  The Department is required to play an increasing role in terms of providing support for Member Countries seeking OIE 'mediation' to resolve their sanitary disputes. This point will need to be mentioned in the next Strategic Plan.
  Moreover, the OIE publishes two *Codes*, containing the standards for trade applicable to terrestrial animals and aquatic animals, respectively. It is imperative that the 'horizontal' standards in these two *Codes* be eventually harmonised and that responsibility for the secretariat of the two Specialist Commissions be given to this Department.

2.1.6. Relations with the international veterinary scientific community

- Relations between the Central Bureau and the worldwide network of 156 OIE Reference Laboratories and Collaborating Centres need to be strengthened.
  The Central Bureau has tried in vain to obtain new financial resources to support research programmes for these laboratories. These efforts are continuing but this activity will need to be included in the 4th Strategic Plan.
  An Ad hoc Group is currently being set up to validate diagnostic kits for which there is a commercial patent. Subsequently, recommendations on this sensitive issue will also have to be issued so as to solve it definitively.
  Lastly, the essential role of this worldwide network for the OIE will have to be restated.

2.1.7. OIE Publications

- The Department at the OIE Central Bureau responsible for matters relating to publications will undergo major reorganisation in 2003. A more aggressive policy aimed at increasing the dissemination of printed or on-line OIE publications will be developed and will have to be an integral component of the new Strategic Plan, aimed for example at the universities and veterinary

schools in Member Countries, through the development of new external subcontracting arrangements.

2.1.8. Work of the OIE Specialist Commissions

- New terms of reference, aimed at clarifying and strengthening the competence of each of the Commissions, have been adopted. The number of Working Groups and Ad hoc Groups in support of these Commissions has been increased. To contribute to the financing of these actions, the Member Countries have agreed to a system of charges being introduced for countries seeking official recognition of their status in respect of specific animal diseases.
  Support for the strengthening of this policy should included in the future Strategic Plan.

2.1.9. Participation in OIE international meetings

- The OIE must reinforce its scientific influence by pursuing its policy of holding an increased number of International Conferences. Given the costs involved, the practice of charging a registration fee should be systematically applied in future (except for Delegates and Reference Laboratories).

2.1.10. Communication

- While this function has been considerably developed since 2001, it is nevertheless vital for the OIE to strengthen it even more and to include it in the Plan.

3- ADDITIONAL POINTS TO BE INCLUDED IN THE NEW PLAN

3.1 OIE resources

The OIE's existing resources are very modest given the objectives it has been assigned, especially when they are compared to the resources of other International Organisations, such as the FAO and WHO.

It is essential to prepare:

- an acceptable readjustment of the amounts in the current scale of contributions. For example, the International Committee agreed to an increase of 25% in 2001, while at the same time the least developed countries benefited from a reduction of 50%.
- To date, around 20 Member Countries have chosen a contribution category manifestly lower than their economic capability. They need to be encouraged to agree to a change of category.
- The system of voluntary contributions needs to be extended. This will probably necessitate the strengthening of the RR. The model adopted by the countries of

South-East Asia (additional contribution of the countries which are members of the SEAFMD programme) or the Middle East (use of Arabic) should be more widely applied.

The system of placing national civil servants or trainees at the disposal of the OIE free of charge is also a valuable source of support and should be developed.

- The mechanism for using non public resources (foundations, private firms) will have to be effectively implemented, while of course ensuring that the independence of the OIE is preserved at all costs. Some of the mechanisms established by the WHO for this purpose could serve as useful models.

3.2 Regional actions

This is a key issue for the future Strategic Plan.

These actions have not so far been covered by the OIE Regular Budget (RB) as they only concern voluntary contributions.

In future they should therefore be included in the RB, on condition that there is an appropriate increase in compulsory contributions, while not ruling out all the other potential resources.

Subject to the necessary resources being available, the creation of sub-regional bureaux needs to be developed in all continents (action already under way in Africa). This should be mentioned in the new Plan.

There is also a need for meetings of the elected members of the Bureaux of the Regional Commissions in the presence of the Regional Representative to be made compulsory and more frequent (with the appropriate finance).

Training sessions for OIE Delegates, in particular those recently appointed, will also have to be systematically organised in the regions.

The Central Bureau is currently developing a 'trainer training' programme in each region, so as to represent the OIE in the various training sessions organised by the OIE either alone or in collaboration with the WTO or other International or Regional Organisations. The Plan will also have to take this new policy into account and include it on a formal basis.

Furthermore, each Regional Commission will provide, through each Regional Representative of the OIE, specific proposals for the regional actions, in addition to general suggestions.

BSE in the Asian Pacific Region

Information for the Public Sector Dr. Fujita 1/26 pm

October 2003

Bovine Spongiform Encephalopathy (BSE; Mad Cow Disease) is an infectious disease of cattle which destroys the central nervous system and is always fatal. There is no vaccine and no treatment.

The disease was first diagnosed in 1986 in cattle in the UK and since then has spread to many countries in the world, including Japan and Canada. BSE is transmitted to cattle through feed containing bovine protein, most often meat and bone meal (MBM), that is contaminated by the BSE agent. At present, there is no test to detect BSE in live cattle or in food. Diagnosis is only proven by testing the brains of dead animals.

It now appears probable that BSE can be transmitted to people through consumption of certain tissues derived from BSE-infected cattle, such as brain and spinal cord. These may be consumed directly or be present within other meat products. The human disease is called variant Creutzfeldt-Jacob Disease (vCJD). This disease should not be confused with the sporadic form of the disease (CJD), which may affect 1-2 people per million in countries worldwide and is not associated with BSE. For this reason, the use of these tissues in human food is prohibited in many countries.

Due to worldwide trade in bovine MBM, feed containing MBM, and live cattle over the past 10 years, countries in the Asia and Pacific Region have potentially imported contaminated feed and/or live infected cattle. Therefore it may be possible that our country is at risk for having BSE silently cycling in our cattle.

What we are doing:

Our country is working both to understand if we are at risk and to protect our animals from becoming infected by: These must be modified to reflect what the specific country is doing

- Enforcing import restrictions on cattle and other potentially infective products from BSE risk countries

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- Banning the feeding of mammalian MBM to ruminants
- Identifying and removing cattle suspected of having BSE through surveillance of cattle at the farm and at the slaughterhouse
- Banning the recycling of slaughterhouse by-products for ruminant use
- Using laboratory tests to identify positive cases
- Seeking international cooperation and collaboration for technical assistance
- Making available information from local and international agencies

As well, we are working to prevent potentially infective food products from entering the human food supply and protect public health by:

- Removing cattle suspected of having BSE from the human food chain
- Enforcing import restrictions on potentially infective food products from BSE risk countries

Meat, milk, and milk products from cattle are considered to be safe to eat

Further information

Please add information on your BSE contact within veterinary services
Please add address of your local/regional BSE or governmental website

OIE Code Chapter on BSE:
http://www.oie.int/eng/normes/MCode/A_00068.htm

UK DEFRA BSE page:
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Canada CFIA BSE page:
http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/bseesbindexe.shtml

Swiss Federal Veterinary Office BSE page:
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Australia AFFA BSE page:
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BSE in the Asian Pacific Region

Information for Farmers

October 2003

Dr. Fujita 11/26 pm

Bovine Spongiform Encephalopathy (BSE; Mad Cow Disease) is an infectious disease of cattle which destroys the central nervous system and is always fatal. There is no vaccine and no treatment.

There is a risk that the agent has entered our country and is silently circulating in our cattle, and it is important to our country to determine whether this has occurred. If it has not, we need to have the evidence to prove it. If it has, we must stop other animals from becoming infected and protect the health of people.

Suspect animals

The clinical symptoms are varied and become worse over a period of several weeks or even months, although some can change very rapidly. Few cattle with BSE show typical "mad cow" signs.

Our veterinary services is implementing a program to prove our country is free of the disease. Because BSE infection in live animals **can only be detected by observation,** we need you to help us identify cattle showing certain changes and to report them to a veterinarian. The brains of animals suspected of having BSE can then be tested to determine whether they are infected or not.

WHAT YOU DO: Please observe your cattle closely and report any animals showing one or more of the following signs to your local veterinarian:

- apprehensiveness
- nervousness
- reluctance to cross concrete, turn corners, enter yards, go through doorways or permit milking
- occasional aggression towards other cattle or humans
- manic kicking when milked
- head shyness, with head held low
- high stepping gait, particularly of hind legs
- difficulties in getting up
- skin tremors
- loss of condition, weight, or milk yield

Contaminated feed

Cattle become infected by eating feed containing infectious material, especially meat and bone meal (MBM), but you can not see if your feed contains this material or not. The government has taken steps to prevent MBM from entering cattle feed, but it still may be

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present in feed for pigs or poultry (which do not get BSE). Even the feed label may not say whether it contains infectious material.

WHAT YOU DO: (note: these should be modified according to the specific situation in the country)

- Never give ruminants feed intended for poultry, swine, horses, or pets, as this may contain infective material
- Store and handle feed intended for ruminants separately from other feeds
- Prevent access by ruminants to feeding areas of poultry, swine, horses or pets
- Do not add ingredients or feeds meant for poultry, swine, horses or pets to ruminant feeds

Further information
Please add information on your BSE contact within veterinary services
Please add address of your local/regional BSE or governmental website

Picture?

BSE in the Asian Pacific Region

Information for Technical Personnel

October 2003

Dr. Fujita 11/26 pm

Bovine Spongiform Encephalopathy (BSE; Mad Cow Disease) is an infectious disease of cattle which destroys the central nervous system and is always fatal. There is no vaccine and no treatment.

BSE is transmitted to cattle through feed containing bovine protein, most often meat and bone meal (MBM), that is contaminated by the BSE agent. The agent enters a country through import of contaminated feed and/or live infected cattle. Then, by processing of infective bovine tissues and feeding them back to cattle as meat and bone meal (MBM), the agent is amplified and distributed more widely (figure). This cycle may occur without the appearance of clinical cases until the agent has been in the country for many years. To prevent this recycling, the use of rendered ruminant proteins in feed intended for ruminants should be banned. As well, an effective surveillance program should be implemented so that if BSE enters our country it can be detected as early as possible.

The average time lapse between infection and the first signs of the disease (incubation period) is five years. Therefore, the disease is found exclusively in mature cattle because they have lived long enough for the symptoms to become apparent. The diagnosis can only be made after the animal has died, by examining brain tissue.

It now appears probable that BSE can be transmitted to humans through consumption of certain tissues ('specified risk materials'/ SRM), such as brain and spinal cord, derived from BSE-infected cattle. These SRM may be consumed directly or be present within other meat products. The human disease is called variant Creutzfeldt-Jacob Disease (vCJD). This form of CJD should not be confused with the sporadic form, which generally occurs at a rate of approximately 1-2 cases per million people in countries worldwide. For this reason the use of SRM in human food should be prohibited.

No infectivity has yet been detected in bovine skeletal muscle (beef). Milk and milk products are generally considered to be safe, as are all products from poultry and swine.

BSE has been reported in cattle throughout Europe as well as in Israel, Japan, and Canada. These countries have experienced severe economic repercussions to trade and local industry.

Due to global trade in bovine MBM, feed containing MBM, and live cattle over the past 10 years, countries in the Asia and Pacific Region have potentially imported contaminated feed and/or live infected cattle. Therefore it may be possible that our country is potentially at risk for having BSE silently cycling in our cattle.

(Country-specific situation on BSE : optional)

What we are doing

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Measures implemented by governments related to BSE always have two fundamental objectives: to prevent animals from becoming infected and to prevent transmission of the disease to humans. Specifically, in our country, the Veterinary Services are:

- Assessing the risk of our cattle being infected with BSE so that decisions can be made regarding measures that should be implemented nationally
- Working to establish a national, scientifically based surveillance system and requesting that all suspect cattle are reported to the authorities in order to detect cases or prove disease freedom
- Testing suspect cases using internationally recognized diagnostic tests
- Continuing to educate veterinarians and farmers in the early detection of BSE using clinical signs in order to prevent BSE infected cattle from entering the animal feed and human food chains
- Implementing a ban on feeding ruminant proteins to ruminants to prevent amplification of the agent within the country
- Controlling imports of certain products from BSE risk countries to prevent additional agent from entering the country
- Consulting with international experts on various BSE related issues to increase local expertise and technical capacity

In the future, additional measures will be implemented to better protect our livestock and human populations. These measures include:

- Preparation of specific legislation in order to firmly establish the measures within a national control program
- Development of a contingency plan to effectively control the spread of BSE should a case be detected
- Promotion of the cooperation between responsible governmental offices (public health, veterinary services, agriculture) in order to coordinate BSE related activities
- Continued preparation of informational materials (including workshops, seminars, media releases, and printed material) to improve the baseline BSE knowledge within the country

Further information
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http://www.inspection.gc.ca/english/anima/heasan/disemala/bseesb/bseesbindexe.shtml

Swiss Federal Veterinary Office BSE page:

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http://www.bse.ch

Australia AFFA BSE page:
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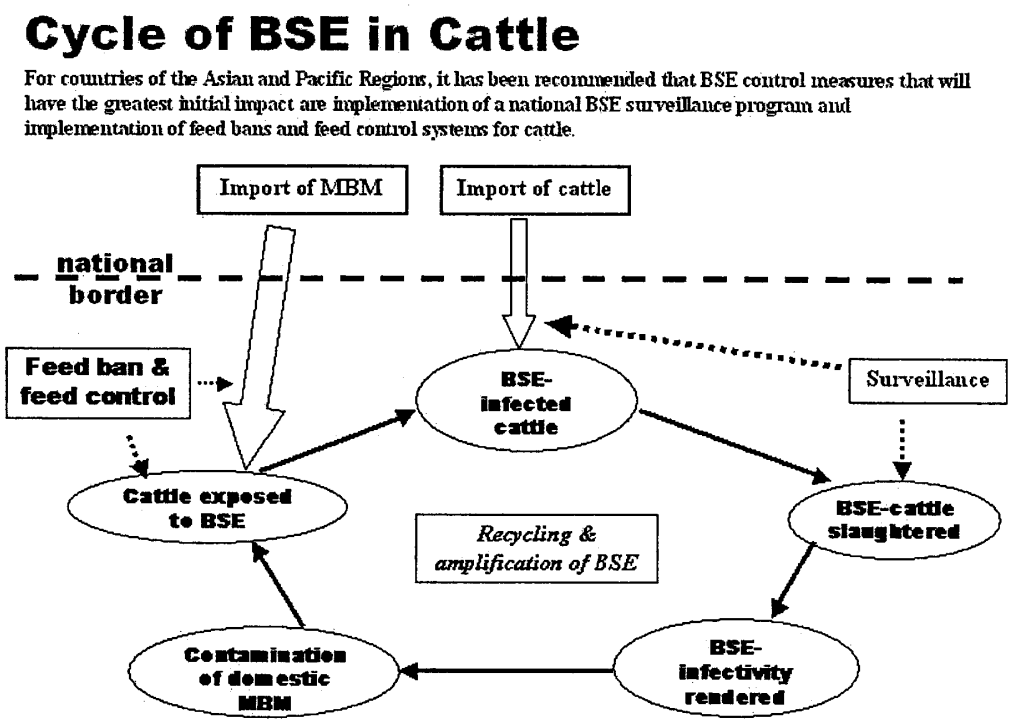
Figure:



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BSE in the Asian Pacific Region

Information for Policy Makers

October 2003

Dr. Fujita 1/56 pm

The disease

Bovine Spongiform Encephalopathy (BSE; Mad Cow Disease) is an infectious disease of cattle which destroys the central nervous system and is always fatal. There is no vaccine and no treatment. The diagnosis can only be made by examining brain tissue after the animal has died. The agent can not be detected in food or animal feed.

BSE is transmitted to cattle through feed containing bovine protein, most often meat and bone meal (MBM), that is contaminated by the BSE agent. The agent enters a country through import of contaminated feed and/or live infected cattle. Then, by processing of infective bovine tissues and feeding them back to cattle as MBM, the agent is amplified and distributed more widely (figure). This cycle may occur without the appearance of clinical cases until the agent has been in the country for many years. To prevent this recycling, the use of rendered ruminant proteins in feed intended for ruminants should be banned. As well, an effective surveillance program should be implemented so that if BSE enters our country it can be detected as early as possible.

Human health risk

It now appears probable that BSE can be transmitted to humans through consumption of certain tissues ('specified risk materials'/ SRM), such as brain and spinal cord, derived from BSE-infected cattle. The human disease is called variant Creutzfeldt-Jacob Disease (vCJD). This form of CJD should not be confused with the sporadic form, which generally occurs at a rate of approximately 1-2 cases per million people in countries worldwide.

BSE in the world

The first case of BSE was reported in the United Kingdom (UK) in 1986. Since then, more than 180,000 cases of BSE have been confirmed in the UK and over 1,500 BSE cases have been confirmed in other European countries. Recently, the disease has been reported outside Europe in Japan (2001), Israel (2002) and Canada (2003). The risk and threat of BSE spread to the rest of the world is therefore real and a major concern, and it is of utmost importance that immediate surveillance and control measures be implemented in our country.

Breaking the cycle and protecting public health

In 2001, a joint WHO/FAO/OIE Technical Consultation on BSE held in France recommended that BSE and vCJD be considered International Issues, because

- potentially infected BSE materials have been distributed worldwide via trade in live cattle, infected MBM, and certain bovine products and by-products
- public health is affected through the consumption of food contaminated by the BSE agent

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Therefore, it is important for all countries to implement measures with two main objectives: **to prevent animals from becoming infected and to protect public health**. A necessary first step is to **implement intensive surveillance** to determine the actual situation in the country. Then, measures must be taken in the country to break the amplification cycle and to prevent transmission of the disease to humans. Effective protection of consumers from exposure to the BSE agent and maintenance of consumer confidence should be an immediate concern of each country. This can be achieved by ensuring that clinically BSE affected cattle and potentially infective material from cattle do not enter any food or feed chain.

Trade Issues

Under the SPS Agreement of the WTO, the Code standards for BSE control developed by the Office Internationale des Epizooties (OIE) have been recognized as the international standards for trade and the Codex Alimentarus standards developed by FAO and WHO have been recognized as the international standards for food safety.

Under the OIE Code Standards, in order to trade on an international level each country should implement BSE measures, including:

- Conducting a risk assessment to determine the BSE status of the country in accordance with the OIE International Animal Health Code (Articles 2.3.13)
- Implementing a national, scientifically based, surveillance system
- Implementing a ban on feeding ruminant protein to ruminants
- Controlling imports of certain products from risk countries

In order to protect trade, public health, and the livestock industry in our country it is highly recommended that the necessary legislation be put in place and funding be allocated for implementing at least these initial measures in our country.

Further information

Please add information on your BSE contact within veterinary services
Please add address of your local/regional BSE or governmental website

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Swiss Federal Veterinary Office BSE page:
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Australia AFFA BSE page:
http://www.affa.gov.au/content/output.cfm?ObjectID=D2C48F86-BA1A-11A1-A2200060B0A00651

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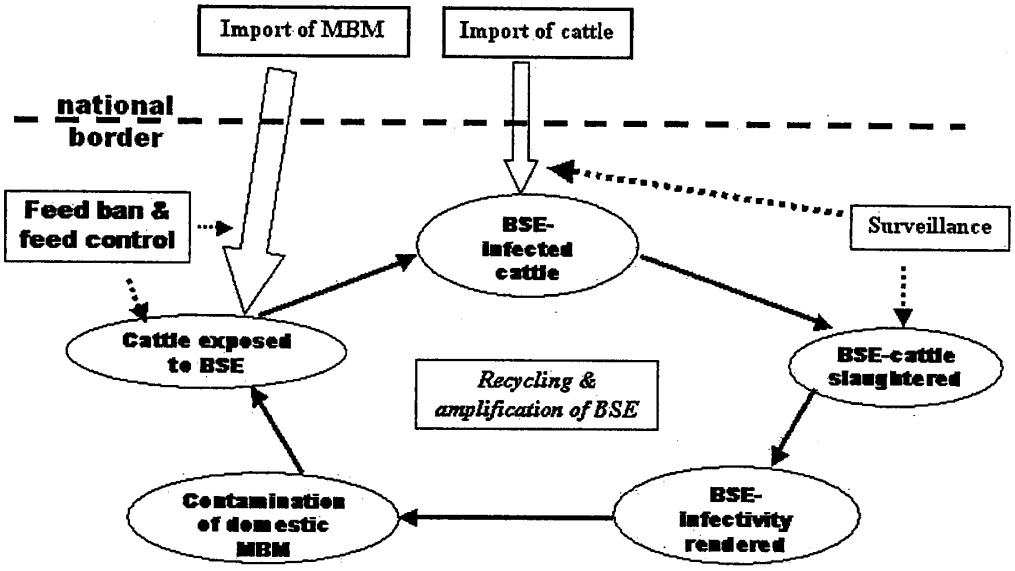
Cycle of BSE in Cattle

For countries of the Asian and Pacific Regions, it has been recommended that BSE control measures that will have the greatest initial impact are implementation of a national BSE surveillance program and implementation of feed bans and feed control systems for cattle.



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Recent activities of the OIE Regional Representation in Tokyo

(23rd Conference of OIE Regional Commission for Asia, the Far East and Oceania)

Noumea, New Caledonia, 25-28 November 2003 Dr. Fujita 11/26 pm

1. (Activities of OIE Tokyo)

Activities of the OIE Regional Representation for Asia and the Pacific based in Tokyo, Japan (OIE Tokyo) have been carried out for the Region under the OIE/Japan Trust Fund Programme. The major programmes include (i) Improvement of animal health information systems, (ii) Support to the control of Foot and Mouth Disease (FMD), (iii) Prevention and Control of Emerging Diseases, (iv) BSE Prevention and Control, (v) Standardization of veterinary medicinal products in harmonization of control methods and techniques, and (vi) Information systems of Aquatic Animal Diseases.

2. (Disease Information Systems) APHISA : Animal Protection & Health Information System in Asia

OIE Tokyo has published (i) the Regional Epidemiology Year Book, (ii) The Regional Aquatic Animal Disease Yearbook, (iii) Quarterly Reports on Animal Diseases and Aquatic Animal Diseases, respectively, and (iv) Monthly Reports on FMD.

OIE Tokyo focuses on the improved animal disease information systems and has held the animal health information technologies meetings for many years including the recent workshop on Animal Information Technology and Introduction of GIS in the Philippines in February 2003.

3. (FMD Control)

FMD is one of the most important animal diseases in the Region.

OIE Tokyo collects and disseminates the FMD information in the Region on monthly basis. OIE Tokyo has worked for FMD prevention and control in Southeast Asia, in collaboration with the Regional Coordination Unit (RCU) for FMD control campaign in South East Asia (SEAFMD). When FMD prevailed in East Asia including Japan, Korea, Taipei China, Mongolia and Russia, the first FMD Control meeting for East Asia was held in Tokyo, Japan in 2000 and the third meeting is planned in Taipei China in 2004. 2nd in Soul, Korea

4. (WTO-SPS)

Functions of the Veterinary Services regarding the WTO-SPS Agreement have been increasing important for all the member countries in the Region, particularly international trade in animals and animal products.

OIE Tokyo held a series of workshops for member countries on WTO-SPS matters, in collaboration with FAO-APHCA (Animal Production and Health Commission in Asia and the Oceania of FAO), and the recent workshop was held in Thailand in July 2003. The workshop

included lectures and/or group exercises on OIE functions in terms of WTO-SPS Agreement and risk analysis and food safety.

5. (Emerging Diseases and BSE)

The importance of Emerging Diseases has been increasingly recognized with globalization by a rapid increase of international movement of animals and animal products. Some of the emerging diseases are zoonosis and need to collaborate with the public health sector. The recent OIE workshops on Emerging Diseases took place in Malaysia, 2002 and Japan, 2003.

Bovine Spongiform Encephalopathy (BSE) had formerly considered as a specific disease in Europe. However, the disease has spread to other continents including Middle East, Asia and Americas. Under the condition, the OIE meetings on BSE were held in Thailand and Malaysia. A new programme on BSE was planned with the financial support of the government of Japan. Under the new circumstance, the OIE BSE programme was recently initiated and implemented for member countries in the Region, in Bangkok and Chiang Mai, Thailand very recently in October 2003, in collaboration with FAO-APHCA and Thai Department of Livestock Development (DLD). The programme included the three different aspects; namely the hands-on training workshop for laboratory staff in Bangkok, the public awareness meeting of BSE for Chief Veterinary Officers (CVOs) or their immediate representatives in Asia and the Pacific, in Chiang Mai and the Consultation Meeting for BSE Public Awareness also in Chiang Mai, Thailand.

SE 3 Workshops in Thailand.
1. Diagnosis & Surveillance
2 Risk analysis
3 Public awarness

6. (Veterinary Drugs Harmonization)

Standardization of veterinary drugs including vaccines is promoted by sharing information on legislation of veterinary medicinal products.

The Conference on International Harmonization on Veterinary Medicinal Products, so called VICH was held in Tokyo, Japan in October 2002, with the participation of OIE. This Conference was the second globally opened meeting after the first one held in Brussel.

7. (Aquatic Animal Diseases)

Collection and dissemination of aquatic animal diseases information in the Region have been made in collaboration with the Network of Aquaculture Centres in Asia-Pacific (NACA) for years.

In addition, the OIE-SEAFDEC-NACA Hands-on Workshops on Important Viral Diseases of Shrimp and Marine Fish were held in the Aquatic Department of the Southeast Asian Fisheries Development Centre (SEAFDEC), Iloilo, the Philippines in 2002 and November 2003.

OIE Tokyo supported the APEC Workshop on Capacity and Awareness Building on Import Risk Management for Aquatic Animals held in Bangkok, 2002.

8. (Challenges)

OIE Tokyo tries to improve animal health information systems, in particular the OIE Tokyo Web-site. OIE Tokyo as well as OIE HQ has actively collected and confirmed informal and unconfirmed animal disease information, for strengthening disease prevention and control.

Animal production food safety at farm level and pre-slaughter is another important domain of animal health activities to reduce food-borne risks to human health and to secure consumers' confidence in food, in particular livestock products. Functions need to be further strengthened for the Region in collaboration with other international organizations including FAO.

Animal welfare is considered as another significant area for animal health organizations, and OIE Tokyo will actively examine measures to support animal welfare, after the OIE Animal Welfare Congress to be held in Paris, in February 2004.

Regional Strategies on FMD and other Transboundary Animal Diseases Control are being discussed and OIE Tokyo will participate in those functions for more strategic/systematic measures of disease control for Asia and the Pacific.

OIE/FAO-APHCA/DLD Regional Workshop on BSE Risk Analysis
(Chiang Mai, Thailand, 9-11 October 2003) Dr. Fujita 4/26 pm

Draft Recommendations regarding Risk Analysis on Bovine Spongiform Encephalopathy (BSE)

Considering that:

1. BSE cases have been recognised not only in European countries but also in countries in other regions including the Middle East (Israel), Asia (Japan) and the Americas (Canada) recently. Sources and routes of the infection in those countries have not been clearly identified, but it is widely recognised that BSE is transmitted through contaminated feed.

2. Some countries in Asia and the Pacific have imported potentially contaminated Meat and Bone Meal (MBM), other possibly cross contaminated feed components, and live cattle (byproducts of which may then have been used to produce MBM) from BSE affected countries and need to draw keen attention to BSE, regardless of whether potentially infective MBM has been fed exclusively to swine and poultry.

3. Some countries in this Region have started BSE diagnostic testing and surveillance, but most of the countries still need to build capacity for BSE diagnosis and surveillance as well as for risk analysis.

4. Risk analysis has not been developed in the majority of countries in this Region, due to lack of technical human and/or financial resources.

5. Animal identification and traceability are basic requirements for surveillance activities and are not available in the majority of the countries.

6. Information on BSE in buffaloes is not available from any source.

7. Countries need to recognise that inappropriate risk assessments disturb accurate risk management and risk communication, and have an impact on trade.

8. The importance of adequate risk assessment and its communication is an important issue to regain and maintain consumer confidence in food safety.

9. Some countries in the Region wish to be declared as BSE free or provisionally free at an international level, according to the OIE Standards (Code Chapter 2.3.13).

The Workshop on BSE Risk Analysis recommends that:

1. All member countries in the Region prepare and perform risk assessment on BSE in order to determine their status as soon as possible, according to the OIE Code Chapter on BSE (2.3.13.).

2. Compulsory notification for BSE and effective surveillance systems are established in the Region.

3. Veterinary services develop risk management programmes according to their BSE status.

4. Veterinary services develop public awareness by providing available scientific information on BSE and other transmissible spongiform encephalopathies (TSEs) to veterinarians, farmers and other stakeholders.

5. Veterinary services provide information on scientific matters regarding BSE and TSEs and provide guidance to industry about standards with which they need to comply.

6. Member countries apply to OIE for recognition of their BSE status in line with the OIE established procedures, if the countries wish to be recognised as free or provisionally free from BSE.

7. The use of ruminant tissues including MBM and greaves in ruminant feed be banned.

8. Knowledge be generated regarding BSE in buffaloes.

9. Capacity building be improved for Veterinary Services on BSE diagnosis, and epidemiology.

10. BSE diagnosis and surveillance systems be widely introduced in the Region.

11. Discussion among countries leading to establishment of national animal identification systems be encouraged according to OIE international standards when they become available, and that standards be harmonised amongst countries in the Region.

12. International organisations continue their assistance, cooperation, and collaboration for capacity building on risk analysis and diagnosis/surveillance of BSE.

23rd Conference of the
OIE Regional Commission for Asia, the Far East and Oceania
25 – 28 November 2003
New Caledonia

De. Edwards . 1156 pm .

Evaluation of South-East Asia Foot and Mouth Disease Campaign (SEAFMDC)

Purpose of SEAFMDC

SEAFMDC involves eight of the ASEAN countries working together to control and eradicate FMD. The countries involved are Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand and Vietnam. Through the control and eradication of FMD the livestock sector will achieve increased productivity, which in turn will contribute to food security and poverty alleviation.

The OIE Sub-Commission for FMD in South East Asia currently manages the SEAFMDC through the OIE Regional Coordination Unit (RCU) in Bangkok. The RCU is staffed by four people.

AusAID is the major donor with additional financial support through the OIE Japan Trust Fund and in-kind support from Department of Livestock Development (DLD), Thailand and Kasetsart University.

History of FMD leading to Phase 1 and Phase 2

The OIE campaign to control and eradicate FMD in South East Asia arose in 1990 because the involved group of countries recognised that the prevalence of FMD was an important regional animal health issue. All agreed that co-operation was required to deal with this disease because of the propensity to spread across international boundaries. At the request of the participating countries the campaign became a formally endorsed OIE programme in 1994 with the formation of the OIE Sub-Commission for FMD in South East Asia.

The SEAFMDC has been in operation since 1996 and is now half way through Phase II. The Campaign was introduced because of the impact FMD is known to have on livestock production and hence on producer income and regional development.

Infectious disease is a constraint on livestock production that individual farmers often have little ability to influence. Control requires coordinated measures that are often expensive. FMD is seen as the most serious of these diseases, because of its ability to spread rapidly by a variety of direct and indirect means, the wide range of livestock species it can affect and the detrimental effect it can have on the economics of livestock production.

FMD has been endemic in South East Asia for decades. Its maintenance is mostly dependant upon direct contact between infected and susceptible livestock. The relative freedom of movement of animals within and between countries represents one of the greatest challenges in its control.

Indonesia is currently free of FMD. In the Philippines FMD is only present in Luzon. East Malaysia has always been free of FMD. Peninsular Malaysia has experienced repeated incursions in the border states but the remainder has been essentially free for many decades (with occasional incursions that have been effectively eradicated.) FMD is endemic in Thailand, Myanmar, Lao PDR, Cambodia and Vietnam.

In other parts of the world, experience has shown that FMD impacts on trade opportunities, on the producer and on the national economy.

Key Characteristics of Phase 1 and Phase 2

The SEAFMDC is now in Phase II of a twelve year plan. Phase I was completed successfully in November 2001.

Phase I was aimed primarily at the development of animal health infrastructure. The main activities of the RCU included establishing an office, developing networks, assessing programs, providing limited consultancies, providing expert advice on diagnosis, surveillance and epidemiology, and organising meetings and training programs.

Phase II began in 2001 and is due to be completed in October 2004. It involves an overarching plan for the region, with participating countries implementing complementary individual National Plans that identify available resources and funding to achieve the national activities. The SEAFMD Strategic Plan for Phase II consists of 8 components:

1. International coordination and support;
2. Program management and sustainability;
3. Public awareness and communication;
4. Disease surveillance, diagnosis, reporting and control;
5. Policy and legislation to support disease control;
6. Research and technology transfer;
7. Livestock sector development including private sector integration;
8. Monitoring and evaluation.

Evaluation

The SEAFMDC is now halfway through its second phase.

Purpose

The Terms of Reference of the Evaluation cover:

1. Evaluation of progress with Phase II;
2. Recommendations to guide development of Phase III;
3. Stakeholder engagement;
4. Review of progress of transition to ASEAN;
5. Recommendations on funding options for Phase III;
6. Timetable for implementing recommendations of the MTE;
7. Overseeing draft strategic plan and business plan development.

General membership

The Evaluation Team will consist of:

- Chairperson will be a nominee of Director-General of OIE;
- A representative of ASEAN countries nominated by the ASEAN Secretariat;
- An independent expert with knowledge and experience in the design of regional animal health programs;
- Other members as agreed by the Director–General of OIE.

Specifically, the team will be Chaired by Gardner Murray and have members from the OIE, the EU, PR China, ASEAN, AusAID, USA, and the OIE Regional Representation.

Timing
The Evaluation will be conducted over a two-week period from 29 November to 12 December 2003.

A report will be prepared in electronic format and be submitted to the Director-General of the OIE and the Secretary General of ASEAN by 2 January 2004.

Nature
The Evaluation team will visit the Philippines, Thailand and Cambodia and conclude in Bangkok. These countries were selected because of their strategic importance and to avoid overlap with the AusAID review that was conducted earlier in the year.

During the evaluation, team members will take part in field trips, meetings with Ministers and other stakeholders and participate in a workshop with Bangkok-based staff on 3 December. The workshop will consider the strengths and weaknesses of the current and previous phases, opportunities and threats for the future, strategic vision, resourcing, transition to ASEAN and a progressive zoning approach.

Issues
Key issues for the Review team will be:

- Efficiency
- Effectiveness
- Role of ASEAN
- Funding sources
- Directional change
- Involvement of other countries (e.g. P R China)

Steps following the evaluation

The Report will be submitted to the Director-General of the OIE and the Secretary General of ASEAN by 2 January 2004. It will be considered at the OIE Sub-Commission for FMD in South East Asia in the first week of March 2004 and at the General Session in May 2004.

The Report needs to clearly define a timetable for implementation of recommendations to ensure that there is a smooth transition to the next phase.

Open for discussion/comment

The Southeast Asia Foot and Mouth Disease Campaign

Report to OIE Regional Commission for Asia, the Far East and Oceania

December 2003

Dr. Edwards 4/26 pm

Dr John Edwards, Regional Coordinator, Bangkok

The Southeast Asia Foot and Mouth Disease (SEAFMD) Campaign involves the coordinated control of Foot and Mouth Disease by eight countries in the ASEAN region. These countries are Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand and Vietnam. The campaign is coordinated through an OIE (Office International des Epizooties) Regional Coordination Unit in Bangkok. The RCU delivers program as agreed by the OIE Sub-Commission for FMD in Southeast Asia. The RCU now has four staff: Dr John Edwards, Dr Narathip Moungsang (Seconded from the Department of Livestock Development), Khun Chutikarn Dhebhasit (part-time Secretarial Assistant) and Mr Tom Chesson (Australian Volunteer). This report marks the completion of the second year of Phase II of the campaign. AusAID is the major donor for this phase of the campaign.

The 9th Meeting of the OIE Sub-Commission agreed to the SEAFMD RCU's annual work plan for 2003/04 in March 2003 and progress against this is the basis for this report and can be found in Attachment 1. The main achievements are listed against each Component.

Component 1: International co-ordination and support

- A long-term strategic vision for the control of FMD in Southeast Asia has been developed and was endorsed by the OIE Sub-Commission in March 2003. It proposes a targeted and progressive zoning approach to the long-term eradication of FMD in the region. This will be a core document for the Mid-term Evaluation (MTE) planned for December 2003. The Sub-Commission also endorsed the formation of working groups to progress planning. In September 2003, the Upper Mekong Working Group held its second meeting and the Lower Mekong Working Group held its first. The RCU collaborated with the EU Project in Vietnam and New Zealand to send an expert team to advise on the feasibility of the Red River Basin zoning proposal and a final workshop will be held on 21 November 2003.
- Two Meetings of National FMD Coordinators were held
- The Regional Coordinator carried out missions to Cambodia, Indonesia, Lao PDR (2), Myanmar, Malaysia (3), Philippines (2), Thailand (Pak Chong, Chiang Rai and Hat Yai), Vietnam, Mozambique, Australia (AAHL Advisory Council), PR China (2), OIE Paris, FAO Rome and the World Reference Laboratory (UK).
- The Regional Coordinator participated in Regional Consultations on the Global Framework on Transboundary Diseases (GF-TADS) in Ludhiana, Bangkok and Lahore. A major outcome was regional agreement on the acceleration of the progressive zoning approach to FMD control in Southeast Asia as the top priority project for support under the GF-TADS
- There has been continued development of close linkages and cooperation with international agencies working in the region
- Linkages with ASEAN have been maintained.
- Meetings and workshops organized include Project Management Training, Information Systems, the 9th Meeting of the OIE Sub-Commission, the Third National FMD Coordinator's Meeting, a meeting of the Lower Mekong Working Group on Zoning, two meetings of the Upper Mekong Working Group on Zoning and a meeting of the SEAFMD Private Sector Consultative Committee
- The Regional Coordinator has given presentations at many international meetings

- PR China has agreed to participate actively in partnership with the SEAFMD Campaign in future and is likely to participate in the Mid Term Evaluation and also to host the next meeting of the Upper Mekong Working Group.
- Linkages with ASEAN have been supported and SEAFMD progress has been reported through the ASEAN Sectoral Working Group (ASWGL) on Livestock
- Successful implementation of the Regional Secondment Program by Mr Domingo (Jim) Caro III of the Philippines. The next secondee will be Dr Pebi Purwo Suseno of Indonesia.

Component 2: Programme Management, Resources and funding

- The transition of responsibility for the SEAFMD Campaign to ASEAN has been agreed by OIE and ASEAN (ASWGL and SOM-AMAF) and this includes establishment of an animal health trust fund and the recruitment of a person from an ASEAN country as Regional Coordinator. More work is required to accelerate progress.
- The Regional Coordination Unit has relocated to the Department of Livestock Development
- Development of national FMD plans for SEAFMD is well advanced and all countries have developed National Plans and have agreed to seek government approval for their plans.

Component 3: Public Awareness and Communications

- A SEAFMD Communication Plan has been developed and has now been sent to member countries for their endorsement.
- There has been an increased level of communication with member countries and other stakeholders and this includes bimonthly updates, SEAFMD news published quarterly and an update to Advisory Committee members
- The SEAFMD website has been enhanced and a discussion forum has been launched
- The Philippines FMD Task Force has completed the production of a video for use in countries with free zones for FMD (Philippines, Indonesia and Malaysia). This project was managed very professionally and is a very good example of assisting member countries to collaborate on the production of materials for communication and public awareness. National Coordinators have now requested a video for the FMD infected zones and this is under negotiation with the Philippines
- The RCU has assisted Myanmar with the development and implementation of a public awareness program for the MTM zones in Myanmar
  Malaysia - Thailand - Myanmar

Component 4: Disease surveillance, diagnosis, reporting and control

- Discussions have also been held with supporters of the RRL. The RCU has helped the DLD and AAHL with their plans for a staff member of AAHL to be located at the RRL to assist with implementing systems for bio-security, quality assurance and research
  Regional Reference Laboratory
- The Regional Database has been maintained.
- A proposal to redevelop the database by linking with other OIE databases and to allow for electronic input of data is being considered by OIE Paris.

Component 5: Policy, legislation and standards to support disease control and zone establishment

- A process to harmonise legislation for FMD control is underway
- A long-term strategic approach to FMD control in Southeast Asia is under development and this involves a progressive zoning approach based on a set of principles developed to guide future activity. This is now attracting support by other agencies involved in FMD control.

- Many aspects of planning for the MTM Peninsular Campaign for FMD Freedom have progressed steadily and the Memorandum of Understanding for the Campaign has now been signed by all three countries. A consultancy on surveillance standards for the MTM zones was conducted by Dr Peter Black from the Office of the Australian Chief Veterinary Officer.
- The three zoning working groups will need ongoing support and the RCU has negotiated support from OIE Tokyo, JICA and the EU projects in Lao PDR and Vietnam. Member countries are enthusiastic about the approach being taken. Negotiations are underway with a number of organizations to provide the epidemiological and impact assessment skills required.

Component 6: Regional research and technology transfer

- The RCU has supported the research work being carried out by other organisations and continues to encourage research on FMD in the region.
- A register of research on FMD in the region has been included on the enhanced website.
- The RCU is working with a US based Thai postgraduate student to do a quantitative risk assessment of the MTM Campaign for his research project. Other students from member countries are being sought for similar projects.
- The RCU has been a supporter of the new Australian Bio-security Cooperative Research Centre and anticipates that it will be actively involved in future research and training activities.

Component 7: Livestock sector development including private sector integration

- A Private Sector Consultative Committee (PSCC) has been appointed to advise the OIE Sub-Commission and the first meeting was held in Kuala Lumpur on 22 April. The main outcomes were revision to the Private Sector Plan and a work schedule for the PSCC. The plan is now with member countries for their endorsement. A working group is preparing proposals for consideration by the PSCC.
- Sub-Commission meetings will continue to have a section on enhancing private sector involvement in FMD control.
- A register of stakeholders for the SEAFMD Campaign has been assembled and this includes private sector stakeholders.

Component 8: Monitoring and evaluation

- The RCU has submitted reports as required by OIE and AusAID OIE these are monthly financial reports, annual reports to the Sub-Commission on FMD in Southeast Asia (March), the General Session in May and the Scientific Commission in November. Mission requests, mission reports and mission expenses are also required. For AusAID the inception report, first, second, third and the fourth 6 monthly reports were submitted with the endorsement of OIE Central Bureau within one month of the due date.
- The OIE Sub-Commission noted a high level of implementation of the SEAFMD work plan.
- The work plan for 2003/04 was endorsed by the 9th OIE Sub-Commission and has been reviewed each quarter and the November update is attached.
- A Mid Term Review was conducted in March/April 2003 and the RCU provided support to the review. The outcome was very positive and reported a high level of achievement against project objectives and that in several areas expectations were exceeded. The transition to ASEAN responsibility was the area requiring further work.
- The OIE/ASEAN Mid Term Evaluation is scheduled for December 2003

Progress with the Regional Consultations on the Global Framework on Transboundary Animal Diseases (GF-TADS)

23rd Conference of the OIE Regional Commission for Asia, the Far East and Oceania, Noumea (New Caledonia), 23-28 November 2003

Dr John Edwards (OIE, Bangkok) and Dr Subhash Morzaria (FAO, Bangkok)

Purpose:

The purpose of this paper is to advise Delegates to the 23rd Conference of the OIE Regional Commission for Asia, the Far East and Oceania on progress with regional consultations on the OIE/FAO Global Framework on Trans-boundary Animal Diseases (GF-TADS).

Background:

The GF-TADS is a global joint initiative of OIE and FAO and is aimed at developing proposals to take to the international donor community in order to target the control of the major trans-boundary animal diseases at their source.

In Asia, the GF-TADs have been progressed through a series of consultations in South Asia and Southeast Asia and this involved close cooperation between FAO (Dr Subhash Morzaria, Bangkok), OIE (Dr John Edwards, Bangkok and Dr Teruhide Fujita, Tokyo) and Member Countries.

A consultation for South Asia was held in Ludhiana, India in June 2003 and a consultation for Southeast Asia was held in Bangkok, Thailand in association with the annual meeting of Regional Coordinators for the OIE Southeast Asia Foot and Mouth Disease Campaign in late July 2003. These meetings involved workshops with a range of stakeholders including delegates from member countries, national and international experts, academics and representatives of private sector organizations. The outcomes were lists of priority activities to address the major trans-boundary diseases of livestock in the region.

The outcomes of these meetings were considered at the APHCA meeting held in Lahore, Pakistan in August 2003 and the aim was to refine and prioritise the recommendations. The meeting was attended by delegates from Pakistan (Dr Rafaqat Hussain Raja), Philippines (Dr J.Q. Molina), Thailand (Dr Chaweewan Leowijuk), Sri Lanka (Dr S.K.R. Amerasekera), Nepal (Dr Shub Narayan Mahuto), Malaysia (Dr Abdul Aziz Jamaluddin), Lao PDR (Mr Singkham Phonvisay), Myanmar (Dr Than Htun), Indonesia (Dr Tri Satya Purtin Hutabarat), India (Dr Vijay Kumar Taneja and Dr Subash Chander Suneja), Iran (Dr Syed Mohsen Dastoor), Bhutan (Dr K Wangdi) and Bangladesh (Dr Salehuddin Mahmud). Participants from international organizations included Dr Subhash Morzaria, Dr Hans Wagner, Dr Vishnu Songkitti, Dr Carolyn Benigno (FAO, Bangkok), Dr Teruhide Fujita (OIE, Tokyo), Dr John Edwards (OIE, Bangkok), Dr Juan Lubroth and Dr Peter Roeder (FAO, Rome), Dr John Crowther (IAEA, Vienna) and Dr Michael Dale (European Commission, Islamabad).

The Regional Consultation for the GF-TADS involved a series of resource presentations by staff from OIE (Dr Teruhide Fujita and Dr John Edwards) and FAO (Dr Subhash Morzaria, Dr Juan Lubroth and Dr Peter Roeder) and this was followed by presentations by Dr V.K. Taneja and Dr Chaweewan Leowijuk on the outcomes of the previous consultations in South Asia and Southeast Asia respectively.

Delegates were asked to identify the priority projects for submission under the GF-TADS and to describe the main components of each project. The projects were selected to address the highest priorities for the GF-TADS and the region and also to have the highest chance of success in attracting international donor support. Three projects were proposed:

1. Accelerate the progressive zoning approach for FMD control in Southeast Asia. CSF would be included in zones where necessary to achieve access to export markets.

2. The progressive control of FMD and PPR in Southeast Asia
3. Progressing the control and eradication of FMD and PPR in Afghanistan, Iran and the Central Asian countries

The main components for each project were identified and these included important issues such as establishment or strengthening of regional coordination, strengthening diagnostic networks, establishment of epidemiological networks and conduct of epidemiological studies and harmonization of standards for legislation, diagnosis, vaccine production, animal movements and disease control. The recommendations from the meeting are in Attachment 1.

The next step is to develop a more detailed concept paper for each project and a working group of Dr Subhash Morzaria, Dr John Edwards, Dr V.K. Taneja (South Asia) and Dr Aziz Jamaluddin (Southeast Asia) was established to progress this.

Main issues arising from the consultation on GF-TADS:

The regional consultations have involved a strong and positive cooperation between OIE (Bangkok and Tokyo) and FAO at the regional level and this needs to continue.

Other diseases were considered to be of lower priority at this stage, however, they could be pursued in the next phase and these included Classical Swine Fever (CSF) in Southeast Asia, Newcastle Disease (NDV) and Brucellosis. Diseases such as Haemorrhagic Septicaemia are considered important for livestock in the region but were not as high priority as trans-boundary diseases. Rabies was also considered important. It was noted that this issue could be referred to a WHO Regional Steering Committee on Rabies.

The GF-TADS recommendations are presented for consideration at the OIE Regional Commission for Asia, the Far East and Oceania. This is important to ensure that the regional OIE forum has the opportunity to consider the recommendations. This will also allow countries that were not present at the APHCA meeting to be involved and in particular to consider how to actively involve East Asia in the GF-TADS process.

There has been limited discussion about the proposed steering and management structures required to guide GF-TADS at the regional level. In discussions between Dr Fujita, Dr Morzaria and Dr Edwards it was suggested that a small regional steering group was now needed to oversee the planning process. It should at a minimum contain the FAO Regional Animal Health and Production Officer and the OIE Regional Representative. They could be supplemented by a representative of each of the sub-regions (South Asia, Southeast Asia and East Asia). The SEAFMD Regional Coordinator could be co-opted to assist as required.

In the longer term if and when funding is obtained there will be a need for some way of managing the initiative involving OIE, FAO and relevant stakeholders. There was concern that the structures described in the GF-TADS document may be excessively bureaucratic. It was suggested that it might be more efficient and cost effective to combine the functions of the Regional Steering Committee and the Regional Management Committee. It would also be necessary to build processes that allow the projects to go on with the Regional Committee(s) providing strategic guidance and then local coordination units or project managers being given authority to manage the project between times.

Recommendations:

It is recommended that the OIE Regional Commission for Asia, the Far East and Oceania:

1. NOTE progress with the Regional Consultations on the OIE/FAO GF-TADS
2. ENDORSE the recommendations from the consultations for Southeast Asia and South Asia
3. AGREE to facilitate a Consultation on the GF-TADS for East Asia

Briefing Paper - OIE Regional Commission Meeting

Purpose

To seek agreement of the OIE Regional Commission for Asia, Oceania and the Far East to encourage the International Committee of OIE to develop international standards for the release of GMOs affecting wild animals.

Background

A number of international researchers are developing immunocontraception techniques for controlling rabbits, mice and foxes. Other GM techniques are being developed to control carp and cane toads. The immunocontraception research involves designing vaccines that 'trick' the animal's immune system into treating certain proteins found on egg cells as foreign. The immune system of the vaccinated animal then reacts to these proteins in its own reproductive tract resulting in reproductive failure.

Laboratory research with mice has shown viruses (particularly the mouse cytomegalovirus) are possible vectors for the immunocontraceptive vaccine, with field trials possibly less than two years away. GM techniques for controlling the other mentioned species are not as advanced. Disseminating GMOs are being developed in New Zealand to control wild possums of Australian origin, and in Spain a disseminating GMO has been developed (but not yet released) to protect rabbits against myxomatosis and rabbit haemorrhagic disease. Current research has demonstrated that the technique is possible for at least one species (the mouse).

OIE Involvement

The Working Group on Wildlife diseases has already expressed concerns in its reports to the International Committee in 1994, 1996, 1998 and 2001. It has made recommendations on the potential danger of releasing genetically modified organisms that could spontaneously spread among communities of wild animals.

In 1994 and 1996 the working group stated, *"Administration of contraceptive vaccines to wildlife and their effect on the targeted and other species raises questions concerning environmental safety and animal welfare. Some of the contraceptives studied in the past or experimentally tested on a limited scale have potentially adverse effects. Infectious agents, which could be used as vectors to deliver immunocontraceptives, may be difficult to contain within the target population. Advantages and disadvantages of the various techniques need intensive investigation and evaluation as to [their] safety must be made".*

In its 1998 report, the Working Group addressed the question of vaccination of free-ranging wild rabbits against viral haemorrhagic disease (equivalent to rabbit calicivirus) with a genetically modified myxomavirus harbouring the viral haemorrhagic disease antigen. They stated: *"such vaccines should be evaluated for safety in the animal populations and, when deemed necessary, for humans. The vaccine should be safe not only for the target species, but also for*

the major non-target species that may be exposed to the vaccine through ingestion of baits or predation or scavenging of target species.
Vaccine carrier organisms should not be used in wildlife populations if they are transmissible from vaccinated to non-vaccinated animals."

In their last report (2002) they stated that they still believe their observations are relevant.

The Cartagena Protocol on Biosafety

An international biosecurity protocol for living modified organisms (the Cartagena Protocol on Biosafety) came into effect on September 11, 2003. The protocol establishes an 'advance informed agreement procedure', similar to that used for the pesticide trade. It aims to ensure that countries are provided with the information necessary to make informed decisions before agreeing to the import of such organisms into their territory. Many countries still have not ratified the protocol. [www.biodiv.org/biosafety/]

One view is that this protocol will not deal adequately with the risk and potential consequences of the international spread of disseminating GMOs developed to manage wildlife, and it will not provide a process to resolve disputes prior to the release of the GMO.

Potential Issues

There are international implications in that spread could occur to other countries with completely different management objectives for the target species. The case of the European rabbit provides a good illustration of conflicts that need to be addressed during the development of disseminating GMOs. The rabbit is native to Spain, where it is conserved and managed as a resource for hunting and as a natural prey for endangered predators. In some other parts of Europe and in many southern hemisphere countries (Australia, New Zealand, Argentina and Chile, for example), it is a serious introduced pest. The potential for conflict is revealed starkly by recent interest in developing disseminating GMOs to manage wild rabbit populations. In Australia, research is being conducted on using a modified myxomavirus to disseminate immunosterility in female rabbits, while in Spain research on a different disseminating GMO (but again a modified myxomavirus) to disseminate protective immunity to RHD and myxomatosis is giving promising results. This example of two countries with conflicting purposes demonstrates the potential need for an organisation like OIE to promote international standards.

Consequently, although in most cases the area of origin of a species and the area where it is an introduced pest are sufficiently isolated from each other to prevent natural spread, export prohibitions on both the pest (in case it harbours the introduced GMO) and the GMO itself are crucial.

Consequently when considering the development of a management strategy based on disseminating GMOs, countries should take into account the possible spread of the GMOs beyond their borders, and their possible impact. The following questions need to be answered: What are the likely hazards from the potential introduction of a novel organism? What could be the consequences? What mechanisms are needed to minimize the risk?

Considerations

The OIE International Terrestrial Animal Health Code contains standards, guidelines and recommendations designed to prevent the spread of infectious agents and diseases pathogenic to animals and humans into the importing country during trade in animals, animal genetic material and animal products.

The OIE Code does not deal with the introduction of mammals that are themselves 'pests' or with the biological control of such pests. It does refer to biologicals for veterinary use (Chapter 1.5.3), including the exemplary category of conventional or genetically modified micro-organisms (no. 15 in 1.5.3.2). While the Code addresses the need for quality assurance in manufacturing practices for production of vaccines (Chapter 1.5.2.3), this section focuses on other biologicals and recommends quality assurance of all stages of manufacture, not only testing of the final product. Guidance on any form of control of unwanted mammals that are pests would be a new area for OIE. However, inclusion of this concept has been considered by OIE because no other convention or international body comprehensively covers this area. Beyond that overall topic of biocontrol of mammals that are pests, the OIE has not yet tackled GMOs as a category. Any new code established by OIE that relates to GMOs may need to deal with the development/constitution of the GMO itself (as with the manufacturing process for vaccine and biologicals referred to above).

Although the GM biocontrol issue raised here does not fit easily into the OIE's current expertise, there has been increasing interest in guidance regarding wildlife diseases, and the issues of development and shipment of other biologicals may provide some interesting points regarding safety in the production process.

Recommendation

That the OIE Regional Commission for Asia, Oceania and the Far East agree to the following resolution:

Resolution: International standards for the release of genetically modified organisms (GMOs) affecting wild animals.

CONSIDERING THAT:

Substantial research and development in the field of genetically modified organisms is occurring;

There is a potential danger of releasing genetically modified organisms with resultant unintentional spread among communities of wild animals;

Spread could occur to other countries with completely different management objectives to the originating country.

and

RECOGNISING the necessity for international coordination;

The 23rd OIE Conference of the Regional Committee for Asia, the Far East and Oceania

RECOMMENDS:

THAT THE OIE International Committee

Consider developing international standards for the release of GMOs affecting wild animals, by commissioning a case study or case studies addressing the questions:

— What are the likely hazards from the potential introduction of a novel organism?
— What could be the consequences?
— What mechanisms are needed to minimize the risk?

23rd Conference
of the OIE Regional Commission for Asia, the Far East and Oceania
Noumea (New Caledonia), 25-28 November 2003

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Please inform the Conference Secretariat if any changes are necessary.

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Organisation Mondiale de la Santé Animale

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Draft Final Report

23rd Conference of the OIE Regional Commission for Asia, the Far East and Oceania

Noumea (New Caledonia), 25-28 November 2003

Office international des épizooties

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Introduction

1. On the invitation of the Government of New Caledonia, the 23rd Conference of the OIE Regional Commission for Asia, the Far East and Oceania was held in Noumea from 25 to 28 November 2003.

2. A total of sixty participants, of which fifty-seven Delegates and Observers from seventeen OIE Member Countries, three international or regional organisations and six other member countries of the Secretariat of the Pacific Community (SPC), attended the Conference. The speakers of Technical Items I and II, as well as the OIE Regional Representative for Asia and the Pacific, also participated in the proceedings of the Conference.

Tuesday 25 November 2003

Opening Ceremony

3. Dr Christian Desoutter, permanent Delegate of New Caledonia to the OIE and Director of Veterinary, Food and Rural Affairs, extended a warm welcome to the participants. He mentioned that the Conference had necessitated extensive preparation by the OIE team that assures a high scientific standard, and by the governmental services of New Caledonia responsible for the logistical and operational support, in collaboration with the Pacific Community. He wished the participants a pleasant stay. In conclusion, Dr Desoutter indicated the order of the opening addresses and gave the floor to the OIE Regional Representative.

4. Dr Teruhide Fujita, OIE Regional Representative for Asia and the Pacific, expressed his pleasure at taking part in the Conference in Noumea and his sincere appreciation to the government of New Caledonia and colleagues for their generosity in hosting and preparing the Conference. He stressed the importance of the meeting for the region, as there are many challenges to meet the requirements of various stakeholders, including those concerned by livestock production, the marketing of animals and animal products, as well as consumers.

5. Dr Fujita underlined the seriousness of still existing problems of infectious animal diseases, such as foot and mouth disease, classical swine fever and Newcastle disease, in many countries of the region. He also emphasised the increasing importance of veterinary activities and involvement in relation to food safety at farm and pre-slaughter levels to reduce food-borne risks to human health and to secure consumers' confidence in food, in particular

livestock products. The Veterinary Services of the Member Countries must thus effectively cope with animal disease control and improvement of services to further strengthen their activities, including renewed and transparent animal health information systems, and the development of diagnosis and surveillance systems. This is particularly true for the Asia and Pacific region, since the livestock sector in the region has developed rather rapidly to meet the strong demand of livestock products by consumers.

6. Dr Fujita recalled that the OIE Regional Representation has worked with Member Countries in various fields, including the improvement of terrestrial and aquatic animal disease information systems, support to foot and mouth disease control, prevention and control of emerging diseases, BSE prevention and control, standardisation of veterinary medicinal products and matters regarding the WTO-SPS Agreement including risk analysis, through meetings and workshops. He believed that the OIE Regional Representation needs to continue its efforts to work closely with Member Countries as well as related organisations for further development and improvement of animal health aspects and the livestock sector in the region.

7. Dr Gardner Murray, President of the OIE Regional Commission for Asia, the Far East and Oceania, welcomed the Minister of Agriculture and Marine Affairs, Mr Maurice Ponga, and all participants to the Conference. He extended his thanks, on behalf of the OIE, to the Government of New Caledonia, to the OIE Delegate and the individual officers in the New Caledonian animal health services, and to the South Pacific Community, who together have organised the meeting.

8. The Commission President recalled that governments and animal health authorities in the region continue to face many significant issues, some old and some new. While new diseases are emerging and technological advances are bringing new challenges, long-established diseases, such as foot and mouth disease and rabies, continue to test the region's abilities in control and eradication. He recalled that highly infectious transboundary diseases, rabies, as well as issues associated with the rapidly expanding aquatic animal industries will be discussed during the week. The significance of the emerging technique of using genetically modified organisms to control wildlife and the latest information about animal carcass disposal methods will also be considered. The programme will cover strategic, policy and technical items.

9. Dr Murray observed that the role of the Regional Commissions is expanding. The OIE has identified regional actions as a key issue in the 4th OIE Strategic Plan for 2005-2010. He believed this to be an exciting opportunity for the Regions,

with proposals for the creation of sub-regional bureaus, training sessions for OIE Delegates and the opportunity for the Regional Commissions to have input into the OIE Strategic planning process. He stressed that there is a need to work together to take full advantage of opportunities as they arise, in order to strengthen the Asia, Far East and Oceania region and its ability to function optimally in the OIE.

10. In conclusion, Dr Murray commented that the stage is set and that it is now up to everyone to make sure that the outcomes of the week are constructive and can be used to further the goals of the OIE for the benefit of the region.

11. Dr Bernard Vallat, Director General of the OIE, also on behalf of the President of the OIE International Committee, expressed his pleasure at welcoming the participants to the Conference. He expressed his gratitude to the Government of New Caledonia for inviting the Commission to hold its conference in Noumea. He extended his thanks to the Secretariat of the Pacific Community for its valuable support and for the common implementation of the new Agreement with the OIE Central Bureau in the field of animal disease information.

12. The Director General stressed the particular value of the proposed programme for the region, as it underlines the essential role of the livestock sector. In fact, the region's animal production sector, including aquaculture, has been growing on average more rapidly than in any other area of the world over the last three decades.

13. Dr Vallat briefly outlined the technical issues to be discussed during the conference and stressed the importance of these issues for the region as well as internationally. He also mentioned that ideas can be exchanged on the Global Framework on Transboundary Animal Diseases (GF-TADS), a global joint initiative of the OIE and the FAO.

14. The Director gave a brief overview of the 3rd Strategic Plan (2000-2005) stating that the objectives have for the most part been reached after three years. The new fields of activity and responsibility of the OIE are effectively animal welfare, including sea transport of live animals, and animal production food safety. He added that the 4th Strategic Plan (2005-2010) will no doubt review in particular these issues, without neglecting the traditional missions of the OIE. Additionally, elements that must have particular attention are the development of our financial resources (budgetary and voluntary extra-budgetary), in order to develop the regional actions to a far greater extent; the intensification of relations with other international organisations, as well as ongoing permanent political and technical support to Veterinary Services of Member Countries.

15. In conclusion, Dr Vallat reported that a specialised department devoted solely to regional activities has been created in the Central Bureau, in order to sustain and facilitate the development of programmes implemented by the OIE Regional Representations. Its role is to support the regional activities of the OIE, in particular by mobilising the resources of the Central Bureau's other specialised technical departments, and to help insure coherence between the activities of the Regional Commissions and those of the Regional Representations, as well as interaction with other international organisations.

16. The Honourable Minister of Agriculture and Maritime Affairs of New Caledonia, Mr Maurice Ponga, warmly welcomed participants to the Conference. He observed that New Caledonia has been a member of the OIE for over fifty years and that it was important for the Government to organise a meeting of this nature, thus strengthening its presence in this important intergovernmental organisation, and thereby contributing to the organisation's influence in the Pacific zone. He extended his thanks to the Director General of the OIE for honouring New Caledonia and Noumea for holding the Regional Conference in his country. He also thanked the Secretariat of the Pacific Community (SPC), and in particular, the recently re-elected Director General, Ms Pangelinan.

17. The Minister observed that only two of the member countries of the SPC are members of the OIE. He expressed the hope that this meeting at the SPC headquarters would encourage interest, debate and even adherence of the observer countries of the zone. He was convinced that the specificities of the isolated states of the Pacific need to be taken into account to an even larger extent.

18. With regard to its privileged animal health status and its recognised potential in aquacultural issues, New Caledonia will follow the conclusions of the conference with particular interest. He added that the Government of New Caledonia, as well as its services as a whole, would do their utmost that the participants' stay would take place under the best conditions, whether of a professional, human or cultural nature during the exchanges. He then declared the 23rd Conference of the OIE Regional Commission for Asia, the Far East and Oceania officially open.

19. The texts of the above speeches were distributed to the Delegates.

Election of the Conference Committee

20. The participants elected the following Conference Committee:

Chairperson:	Dr Christian Desoutter (New Caledonia)
Vice-Chairperson:	Dr Vijay K. Taneja (India)
Rapporteur General:	Dr Barry O'Neil (New Zealand)

Adoption of the Provisional Agenda and Timetable

21. The Provisional Agenda and Timetable were adopted.

Designation of Chairpersons and Rapporteurs

22. Chairpersons and Rapporteurs were selected for the technical items as follows:

Item I:	Dr Jose Molina (Philippines), Chairperson Dr Derek Belton (New Zealand), Rapporteur
Item II:	Dr Syarifah Syed Hassan (Malaysia), Chairperson Dr Jiraporn Kasemchandra (Thailand), Rapporteur
Animal health situation:	Dr Shubh Narayan Mahato (Nepal), Chairperson Dr Gavin Struthers (Vanuatu), Rapporteur

Animal health situation of Member Countries in the region in 2003

23. The Conference Chairman, Dr Desoutter, introduced the Session Chairman, Dr Mahato, who invited Dr Vallat, Director General of the OIE, to present an update of the disease situation in the region.

24. Dr Vallat gave the overview of the animal health situation of Member Countries in the region in 2003, as contained in the conference report. He encouraged those Member Countries that only report at this stage to the Regional Representative, to regularly report their animal health situation to the OIE, and not only to the Regional Representative, and invited those that wished to give an update to use the Conference to do so.

25. The report that was presented by Dr Vallat (that was current at 29 October 2003) on the animal health situation in Asia, the Far East and Oceania in 2003 was based on information submitted through the responses to the Conference

questionnaire, to the OIE by Member Countries of the Regional Commission for Asia, the Far East and Oceania in their emergency and follow-up reports and monthly reports between January and October 2003. Valuable information is also extracted from the national reports submitted in preparation for the Regional Conference. Furthermore, when necessary, animal health information submitted by some Member Countries only to the Regional Representation for Asia and the Pacific and OIE Reference Laboratory information was used.

26. Of the thirty OIE Member Countries of the Regional Commission for Asia, the Far East and Oceania, eight submitted their reports on the animal health situation on time (on 29 October 2003) for the 23rd Conference of the OIE Regional Commission for Asia, the Far East and Oceania. In fact, many Member Countries have a misunderstanding that emergency and regular monthly reports to the OIE are sufficient for Regional Conference information.

List A diseases

Foot and mouth disease

27. For **Afghanistan**, results received in April from the OIE Reference Laboratory for Foot and Mouth Disease (FMD) in Pirbright, United Kingdom, indicated the presence of serotype O in sheep and cattle. FMD is widespread throughout the country.

28. During the first half of 2003, five outbreaks of FMD in cattle were reported in **Bhutan** in bovines. In **Cambodia**, several outbreaks were reported between January and August 2003.

29. **India** reported outbreaks of type Asia 1, A and O during the first half of 2003.

30. **Indonesia** periodically conducts disease surveillance for all List A diseases, especially FMD, in the provinces bordering Malaysia and the Philippines, as well as Java Island, which was the source of FMD infection during the last outbreak of 1983.

31. Outbreaks due to serotype O were reported in **Laos** during the first part of 2003.

32. In **Nepal,** there were significant outbreaks of FMD in the second quarter of 2003, causing high mortality in crossbred dairy cattle and buffaloes. FMD virus type O, 'Panasia' and 'IND2001' topotypes were responsible for epidemic outbreaks in recent months. The epidemiological trend of FMD in Nepal indicates that the current practices of selective FMD vaccination in dairy farming areas and post outbreak ring

vaccination in some districts have no significant effect on the overall FMD situation.

33. **Vietnam** reported the occurrence of nine FMD outbreaks during 2003, the affected provinces share borders with Cambodia and China. Mass vaccination in the border area and ring vaccination around outbreaks were the control methods used. Serotype O was isolated in six outbreaks in the Dac Lac and Phy Yen Provinces.

34. In 2003, the following OIE Member Countries reported the presence of FMD: **Afghanistan**, **Bangladesh**, **Bhutan**, **Cambodia**, **India**, **Iran**, **Laos**, **Malaysia (Peninsular)**, **Myanmar**, **Nepal**, **Pakistan**[1], **Philippines**, **Sri Lanka**, **Thailand** and **Vietnam**.

35. The following OIE Member Countries have never reported the presence of FMD: **New Zealand**, **New Caledonia** and **Vanuatu**.

36. During 2003, the following OIE Member Countries reported the absence of outbreaks of FMD: **Australia (1873)**[2], **Indonesia (1983)**, **Republic of Korea (06/2002)**, **Mongolia (08/2002)**, **Russia (2000)**, **Singapore (1935)**, **Taipei China (02/2001)** and **United States of America (1929)**.

Rinderpest

37. In July 2003, the Delegate of **Bangladesh** declared his country provisionally free from rinderpest.

38. In June 2003, the Delegate of **Iran** declared his country provisionally free from rinderpest.

39. **Mongolia** reported the last outbreak of rinderpest in March 1993. Intensive surveillance is being carried out by the Veterinary Services, so that the country can provisionally declare itself free from rinderpest. As a result of the epidemiological surveillance during 2002, few samples showed weak positive results; however, these samples may have been taken from vaccinated cattle.

40. In February 2003, the Delegate of **Pakistan** declared his country provisionally free from rinderpest.

Peste des petits ruminants

41. This disease is still present in **Afghanistan**.

42. **Bangladesh** reported sporadic outbreaks of peste des petits

[1] Positive results from samples submitted to the OIE/FAO Reference Laboratory for Foot and Mouth Disease (Pirbright, UK) in March 2003.
[2] Date of last reported outbreak

ruminants (PPR) in January 2003.

43. Outbreaks of PPR were reported in **India** in the states of Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Maharashtra, Orissa, Pondicherry and West Bengal.

44. **Nepal** reported a total of 196 outbreaks between January and June 2003. The distribution of goats without PPR vaccination in hill districts may be causing the spread of PPR to areas previously unaffected.

45. **Pakistan**, who had reported PPR outbreaks during 2002, has not reported any outbreak during the first half of 2003.

46. OIE Member Countries that have never reported outbreaks of peste des petits ruminants are: **Australia, Indonesia, Japan, New Caledonia, Malaysia, Mongolia, Myanmar, New Zealand, Philippines, Republic of Korea, Russia, Singapore, Sri Lanka, Taipei China, Thailand, United States of America, Vanuatu** and **Vietnam.**

Contagious bovine pleuropneumonia

47. No outbreaks were reported from the **Asia, Far East and Oceania** region during the first half of 2003.

48. In October 2003, the Delegate of **India** declared his country provisionally free from contagious bovine pleuropneumonia with vaccination.

Bluetongue

49. A number of bluetongue (BT) serotypes have been present in northern **Australia** for at least 25 years. Ongoing surveillance is conducted as part of the National Arbovirus Monitoring Program. Clinical disease has only been seen if susceptible sheep are introduced into the endemic area where the *Culicoides* vector exists. The disease has not been seen in cattle and goats in **Australia** during the first half of 2003.

50. Serological positive samples were found in domestic animals and wildlife in **Singapore,** but there were no clinical signs. BT was reported in **Taipei China** in cattle and goats following routine serological surveillance, but no animals displayed clinical signs.

51. **India** reported three outbreaks of BT in Karnataka in January 2003.

52. The following OIE Member Countries have reported the absence of BT outbreaks during 2003: **Australia, Bangladesh, Cambodia, Indonesia, Japan (12/2001), Malaysia, Pakistan (12/1996), Russia (1994)** and **United States of America (2002).**

53. OIE Member Countries that have never reported outbreaks of BT are: **Republic of Korea**, **Laos**, **Malaysia**, **Mongolia**, **Myanmar**, **Nepal**, **New Caledonia**, **New Zealand**, **Philippines**, **Sri Lanka**, **Thailand**, **Vanuatu** and **Vietnam**.

Sheep pox and goat pox

54. Five outbreaks of sheep pox and goat pox were reported by **Nepal** during 2003. **India** and **Pakistan** also reported the presence of this disease. In these countries, vaccination is used as the main measure of control.

55. The following OIE Member Countries reported the absence of outbreaks of sheep and goat pox during 2003: **Bangladesh**, **Cambodia**, **Indonesia**, **Japan (1921)**, **Laos**, **Mongolia (1976)**, **Myanmar (1983)**, **Russia (2002)** and **Sri Lanka (10/1996)**.

56. OIE Member Countries that have never reported the presence of sheep pox and goat pox are: **Australia**, **Republic of Korea**, **Malaysia**, **New Caledonia**, **New Zealand**, **Philippines**, **Singapore**, **Thailand**, **United States of America**, **Vanuatu** and **Vietnam**.

Classical swine fever

57. Classical swine fever (CSF) outbreaks were reported during 2003 in **Bhutan**, **Cambodia**, **India**, **Indonesia**, **Republic of Korea**, **Malaysia**, **Myanmar**, **Nepal**, **Pakistan**, **Philippines**, **Russia**, **Thailand** and **Vietnam**.

58. In the **Republic of Korea**, 65 outbreaks of CSF were reported during the first half of 2003. The number of outbreaks is higher than the 13 outbreaks reported during 2002.

59. **Russia** reported four outbreaks of CSF between January and June 2003.

60. **Vietnam** is developing a control programme to establish disease free zones in the Red River Delta and in other areas of the country.

61. The following OIE Member Countries reported the absence of CSF during the first part of 2003: **Australia (1962)**, **Bangladesh**, **Japan (12/1992)**, **Laos**, **Mongolia (11/1994)**, **New Caledonia**, **New Zealand (1953)**, **Singapore (1989)**, **Sri Lanka (06/1999)**, **United States of America (1976)** and **Vanuatu**.

Newcastle disease

62. **Australia** declared itself free from Newcastle disease (NCD) on 26 June 2003 in accordance with the provisions of Article 2.1.15.2 of the *Terrestrial Animal Health Code*. Surveillance is continuing and compulsory ND vaccination is being

introduced in all jurisdictions, except in Western Australia. There have been no further outbreaks of NCD since 27 November 2002.

63. During the first part of the year 2003, 630 affected premises were identified in the **United States of America**, in Arizona, California, Nevada and Texas. As a result of the application of quarantine and movement control inside the country, and a stamping-out policy, no new cases have been detected since 31 May 2003 and all State and Federal quarantine areas have been lifted.

64. In 2003, NCD outbreaks were reported in **Bangladesh**, **Cambodia**, **India**, **Indonesia**, **Republic of Korea**, **Malaysia**, **Myanmar**, **Nepal**, **Pakistan**, **Philippines**, **Russia**, **Sri Lanka**, **Taipei China** and **Vietnam**.

65. In **Taipei China**, one outbreak of NCD was reported in April 2003 in the Kaoshing Prefecture.

66. Two outbreaks of NCD were reported in **Russia** in the Lipetsk region in May 2003.

67. **The Republic of Korea** reported 36 outbreaks of NCD from January to July 2003.

68. In **Vietnam**, NCD is endemic and affects poultry flocks raised in a smallholder farming system.

69. OIE Member Countries that reported the absence of NCD during the first half of 2003 are: **Australia (2002)**, **Bhutan (2002)**, **Japan (2002)**, **Mongolia**, **New Caledonia**, **New Zealand**, **Singapore (2000)**, **Thailand (1996)** and **Vanuatu**.

List B diseases

70. This information on List B diseases is extracted from the animal health status reports of Member Countries prepared for the Regional Conference.

Bovine spongiform encephalopathy and scrapie

71. **Australia** introduced measures to protect its national cattle population from BSE and its sheep population from scrapie.

72. In **Japan**, two new cases of BSE were reported in dairy farms in Wakayama and Hokkaido Prefectures in January 2003. Both diagnoses in six-year old Holstein dairy cows were made using the screening test, which was introduced by the Ministry of Health, Labour and Welfare on 18 October 2001 for all cattle slaughtered at abattoirs. One atypical BSE case was reported during October 2003 in a Holstein bullock aged twenty-three months in the Ibaraki Prefecture. Preliminary results, using

the Western blot analysis, the pattern of the glycoform and the relative protease resistance of PrP^{sc} seem to be different from those normally encountered in BSE.

Rabies

73. In **Indonesia**, 18 provinces are infected with rabies, one province is provisionally free (West Kalimantan) and five provinces have remained free from the disease (Bali, West Nusa Tenggara, Maluku, Banten and Irian Java). During 2002, 510 cases of rabies were reported and an intensive control programme was implemented in all infected areas through mass vaccination of stray dogs. During September 2003, five outbreaks were reported in dogs on Ambon Island, Maluku Province; the latter was traditionally known as a rabies-free area until June 2003 when the first cases were reported. Persons have been bitten by dogs with an incidence rate of 0.66 and human cases have been associated with these outbreaks. East Java, Yogyakarta and Central Java were declared free from rabies in 1997.

74. **Japan** has not reported any cases of rabies since 1956.

75. **Malaysia** has not reported the occurrence of rabies since 1999.

76. **Mongolia** reported outbreaks of rabies in different species (cattle, camels and dogs).

77. **Nepal** reported 327 outbreaks in multiple species.

78. In **Russia**, this disease is endemic and around 2,000 cases of rabies were reported in 2003 in domestic species, but especially in wildlife species.

79. Rabies is endemic in **Vietnam** and occurs sporadically. Three outbreaks were reported by June 2003.

80. The **Republic of Korea** reported 13 outbreaks of rabies during 2003.

81. **Thailand** reported 185 outbreaks of rabies between January and July 2003.

Tuberculosis

82. **Australia** has been free from bovine tuberculosis since 1997 and a tuberculosis (TB) freedom assurance programme has been in operation since that time. The last outbreak of TB was detected by the abattoir surveillance programme in buffaloes in early 2002 and destocking activities were completed.

83. The **Republic of Korea** reported 102 outbreaks of tuberculosis, with 717 cases in cattle during the first half of 2003.

Haemorrhagic septicaemia

84. Haemorrhagic septicaemia (HS) is endemic in **Indonesia** and is found in cattle and buffaloes. The number of cases of haemorrhagic septicaemia reported in 2003 was 1,177.

85. **Nepal** reported 414 outbreaks from January to July 2003. HS is located geographically in the ecozones of Hill and Tarai.

86. In **Vietnam**, 1,677 outbreaks were reported during the first half of 2003. It is the most significant and damaging of diseases for smallholders, causing high mortality in draught animals.

Anthrax

87. In **Indonesia**, anthrax is reported to occur sporadically in West Sumatra, Jambi, DKI Jakarta, West Java, Central Java, West Nusa Tenggara, East Nusa Tenggara, South Sulawesi, Southeast Sulawesi, Central Sulawesi and Irian Jaya.

88. Three outbreaks of anthrax were reported in **Russia** in cattle and sheep during 2003.

89. In **Vietnam**, the disease has been brought under control and there were no outbreaks in 2003.

90. No cases of anthrax were reported from the **Republic of Korea (2000)** or **Japan (07/2000)** in 2003.

Aujeszky's disease

91. **Japan** reported the occurrence of two outbreaks of Aujeszky's disease in the Gunna and Chiba Prefectures during April 2003. During 2002, five outbreaks of Aujeszky's disease were reported.

92. In **Russia**, six outbreaks of Aujeszky's disease were reported during the first half of 2003. During 2002, five outbreaks of the disease were reported.

Contingency plans for animal diseases

93. An Emergency Animal Disease Response Agreement provides funds in response to a disease incursion or outbreak in **Australia**. The largest animal disease simulation exercise in Australia, MINOTAUR, took place in 2002. National preparedness for all large outbreaks of emergency animal diseases, such as foot and mouth disease, has advanced substantially since then.

94. **Indonesia** uses KIAT VETINDO as a guide for contingency plans.

Discussion

95. Following the presentation, Dr Vallat gave a few additional comments. With regard to BSE, he highlighted the atypical case of BSE in Japan in a 23-month old Holstein. As Italy has reported a similar case, the OIE is investigating the matter and will advise Member Countries in May 2004 as to possible changes to the BSE standard based on this situation.

96. The Director General encouraged Member Countries to give the OIE updated information on their tuberculosis status, so that the OIE and other Member Countries could have a better understanding of the TB situation in the region.

97. Finally, Dr Vallat encouraged Member Countries to notify the OIE when they undertook disease simulations, in order to avoid misreporting by the media as to countries' disease situations.

98. The Chairperson of the Session then invited Delegates of Member Countries to report on any changes that had taken place recently regarding the animal health situation of their countries.

99. The Delegate from India reported that the Government is embarking on an enhanced FMD control programme using vaccination. He emphasised the need for a regional FMD control strategy. He also pointed out that poverty alleviation is associated with animal disease control.

100. A member of the delegation from Nepal, indicated that peste des petits ruminants (PPR) is now mainly under control and that a vaccine is being developed for this disease. Expansion of laboratory epidemiology and surveillance systems is taking place within the Veterinary Service, and legislative reform is underway, along with structural reforms, to ensure better compliance with OIE standards.

101. The Delegate from Malaysia remarked that his country had submitted to the OIE a proposal for zonal freedom from FMD in Savah and Sarawak in the island of Borneo. He also commented on the expense of testing reagents.

102. The Delegate from the Philippines reported that there was continued FMD freedom without vaccination in Mindinau, Visayas and Polawan. Next year, they hope to get Luzon free from FMD with vaccination, and in 2006, they hope to get all the Philippines free from FMD without vaccination. The Philippines has also launched new animal health programmes for hog cholera, Newcastle disease and rabies.

103. A member of the New Zealand delegation reported one confirmed case of post weaning multisystemic wasting syndrome in pigs

with two further suspected cases. The properties involved are all in the North Island with no evidence of the syndrome being present in the South Island.

104. The Delegate from Vanuatu reported on a survey for bovine venerial campylobacteriosis. The disease appears widespread, but at a low level. It is proposed that a compulsory bull vaccination scheme be introduced for control of this disease.

105. Dr Vallat replied to a number of the issues raised by the Delegates of India and Malaysia related to the OIE policies on support for developing or transition countries that aim to encourage international donors to invest to a greater extent in animal health programmes.

106. The Representative of the Secretariat of the Pacific Community reported that the twenty Pacific Island Countries and Territories, which are not Members of the OIE, continued to remain free from all List A diseases and rabies. A number of countries in the North West Pacific had serological evidence of the presence of bluetongue virus without clinical signs. The most significant diseases in the region continued to be zoonotic, primarily bovine tuberculosis, brucellosis of cattle and pigs and, most importantly, leptospirosis. Dr Peter Saville advised participants that the SPC Regional Animal Health Service is implementing a number of activities in the region to establish the epidemiological relationship of the disease in humans and animals.

107. An observer from Papua New Guinea advised on a unique species of trichonella present in both pigs and crocodiles.

108. The delegation from Korea distributed their country report during the conference.

Rabies control in Asia

109. Dr Mary Elisabeth Miranda of the WHO Regional Office for the Western Pacific, based in Manila, Philippines, reported on the current human rabies situation in Asia, the Far East and Oceania.

110. Dr Miranda recalled that rabies is a disease that originates from animals and is nearly always fatal to humans if they are not vaccinated immediately after exposure. Almost all human deaths are caused by dog bites and approximately 90% occur in Asia. It is estimated that there were more than 35,000 deaths in Asian countries in 2001 (12 per million population per year). In Asia, the largest numbers of human rabies deaths were reported by India (30,000), Pakistan (2,400), Bangladesh (1,550), China (899) and the Philippines (274). Most of these cases did not receive appropriate post-exposure treatment

(PET). Although every year, 5.7 million PETs are administered following a bite from a potentially rabid dog, this needs to increase to about 10 million to provide adequate protection to victims of dog and other animal bites.

111. The WHO Representative pointed out that although the efficacy and safety of modern cell culture vaccines have long been recognised, more than half of the patients still receive vaccines derived from nerve tissue, which are less effective, require repeated visits to the clinic and can have serious side effects. Moreover, most high risk patients do not receive rabies immunoglobulin (RIG) because of global shortage and its high price.

112. With regard to the rationale and strategies for human rabies control, Dr Miranda indicated that rabies is a vaccine preventable disease and a disease of poverty, particularly affecting young people. Japan and Malaysia are models of successful rabies elimination campaigns, built on dog rabies control, but these were carried out more than two decades ago.

113. For human rabies prevention, the WHO promotes improving access to PET using modern cell culture or avian embryo-derived vaccines through: multi-site intradermal regimens to reduce PET cost; domestic production of rabies biologicals, which are in short supply globally, particularly RIG; and continuing education of health and veterinary professionals on rabies prevention and control.

114. For dog rabies control and eventual elimination, the WHO promotes mass dog vaccination campaigns, although shortages of vaccine hinder progress; dog population management, including reducing the number strays, controlling trade and movement of dogs, and reducing dog populations through neutering; and public health education.

115. Dr Miranda recalled that a Steering Committee for Rabies Control in Asia was established in July 2001 to renew efforts for human and animal rabies control, and to address advocacy, surveillance, research and national and regional collaborations.

116. In conclusion, Dr Miranda emphasised that rabies is a vaccine preventable disease. All the tools and methods necessary to control and prevent rabies have long been available. A concerted effort between the human and animal health sectors will enable the disease to be controlled and eventually eliminated.

Discussion

117. The discussion on rabies that followed Dr Miranda's presentation was predominantly focused on issues emerging from the experiences of the various OIE Member Countries in dealing with the control of the disease.

118. The Delegate from India thanked Dr Miranda for her presentation and then informed the conference that poor quality nerve tissue culture vaccine has now been banned in India. The superior cell culture vaccine for use in humans has replaced the old vaccine.

119. Dr Taneja also commented on the relatively poor investments being made by various national governments on controlling dog rabies. He suggested that in the long run it was cheaper and more efficient to support rabies control in dogs than controlling the disease in humans. Both the WHO representative and the Director General of the OIE endorsed the view from the Indian Delegate. The WHO representative provided some data on the costs of rabies control. The vaccination cost per dog is approximately US$ 1.3 as opposed to US$ 75 per patient.

120. The Indian Delegate also expressed the difficulties on managing dog populations in the South Asia (SA) region. Often dogs in SA are strays (free ranging), whose movement was difficult to control. He, therefore, suggested that more efforts should be directed to controlling reproduction in dogs and developing more efficient dog vaccination regimes. The WHO Representative raised the issue of animal welfare as yet another dimension in the control of stray dog populations.

121. The Delegate from Malaysia attributed the success of their rabies control programme to systematic culling of stray dogs, particularly in the border areas, and processing culled dog brains for rabies diagnosis. She pointed out that this approach was not feasible in all countries within the South East Asia region, particularly in some countries, such as Thailand where religious beliefs prevented using such an approach. The Delegate from Thailand pointed out that in her country an alternative dog birth control strategy using castration and deploying birth control medication has been successful.

122. The Delegate from Korea gave information on the control of rabies in their wild dogs in the demilitarised zones (DMZ). Since 2000, the country has used more than 120,000 doses of oral rabies vaccine bait in DMZ to particularly target this dog population, which was responsible for spreading the disease to farm animals. Through this approach, rabies incidence in the wild population of dogs has been

significantly reduced. Only 15 cases of rabies were reported in 2003.

123. The Delegate from Taipei China (not a member of the WHO) took the opportunity of informing the WHO representative on the rabies situation. He pointed out that his country was free from the disease since 1959. Last year, one case of human rabies was diagnosed in a woman visiting from China, who was bitten by a dog in China prior to arrival in Taipei China. With respect to their dog rabies control, they use a compulsory vaccination programme, as animal welfare issues preclude them from destroying stray dogs. Since 1997, when they initiated a country wide serological surveillance, no positive cases have been identified.

124. The Delegate from the Philippines reported on their national rabies eradication campaign in which there is close collaboration between the Departments of Agriculture and Health. The Agriculture Department employs mass vaccination of dogs and promotes, through appropriate legislation, dog registration and responsible ownership. This approach has led to one island in the country being declared free from rabies. The Philippine Government plans to use this approach island by island to eradicate rabies from the country.

125. A member of the New Zealand delegation reported that his country has never had a case of rabies and he would remind the Ministry of Health in his country to report this situation formally to the WHO.

126. The Representative from Japan attributed the success of its rabies control programme to capturing and destroying stray dogs, and introducing compulsory registration and vaccination of dogs through the local government authorities. She stated that Japan has been free from rabies since 1956.

127. The Director General of the OIE summarised the discussion by stating that success with rabies control is very much dependent on political will and commitment. If countries were to prioritise rabies control, it would be relatively easy to obtain international support to promote such initiatives. The other problem in relation to rabies control was the lack of interaction and collaboration between the medical and veterinary departments at national level. The WHO and OIE need to work together to ensure that there is better collaboration between the health and veterinary services at the national level. He recommended that these interactions could be enhanced to rationalise rabies control globally.

128. The Chairman thanked Dr Miranda for her informative presentation and nominated Dr Jiraporn Kasemchandra (Thailand), Dr Barry O'Neil (New Zealand), Dr Peter Saville (SPC), Dr Vijay Taneja (India) and Dr Yayoi Tsujiyama (Japan)

to work with the speaker to develop a Recommendation to be considered by the meeting.

ITEM I

Animal carcass disposal methods (including rendering) in animal disease outbreaks

129. The Chairman of the Session, Dr Jose Molina, briefly introduced the speaker for this Technical Item, Dr Norman Willis.

130. Dr Willis introduced his presentation with an outline of the scope of the paper, and a description of the currently available technologies for animal carcass disposal.

131. The stamping-out approach, which is traditionally the most common and successful method of disease eradication, requires technology for animal carcass disposal as an integral component. Some general principles for choosing a disposal option are enunciated as factors for consideration, however primary consideration must be given to disease control and eradication.

132. The speaker added that a summary of currently available technologies for animal carcass disposal is presented as a hierarchy based on their reliability for pathogen inactivation. The technologies listed include:

rendering, incineration, pyre-burning, composting, mass burial or open-pit burial, licensed commercial landfill, mounding, fermentation, and examples of technologies under development. As well a special consideration for the disposal of prion disease infected carcasses is discussed, where rendering, incineration, and alkaline hydrolysis are the preferred technologies.

133. Dr Willis pointed out that there is, however, a growing trend in society to reject the excessive waste of valuable animal products and the negative environmental and animal welfare outcomes. This is creating pressure for alternatives to mass animal slaughter and carcass disposal, and ultimately for a philosophical change in the approach to animal disease control, depopulation, and animal carcass disposal.

134. He informed participants that the questionnaire sent to Member Countries of the region yielded 15 responses. The survey sought to obtain a broad picture of the factors involved in animal carcass disposal in the region.

135. Considering the numbers of various species of animals raised in the Member Countries, as well as the degree of intensive

husbandry for each, it was concluded that there are foci of vulnerability that warrant special attention for risk management.

136. Complexity of jurisdiction and regulations does exist in some countries. This should be rationalised in advance of a disease outbreak to ensure that a direct line of authority is clearly understood by all.

137. In consideration of pre-outbreak activities, a significant number of Member Countries offer an opportunity to the region to enhance technical and financial preparedness of these countries. Additionally, some attention could be focused on strengthening partnerships while still in the pre-outbreak phase. The degree of preparedness of staff and policies can be assessed and improved during simulation exercises.

138. The social factors related to disposal were discussed, especially the negative public reaction to mass slaughter and highly visible methods of carcass disposal.

139. Finally, the technologies available and chosen by Member Countries were evaluated. Dr Willis put forward the suggestion that further attention on environmentally responsible technology would be desirable and especially so if this was mobile technology.

Discussion

140. The Chairperson thanked Dr Willis for his informative and comprehensive presentation and invited comments and questions from the participants.

141. The Delegate from India asked who bears the costs of stamping out and carcass disposal, how compensation to affected animal owners is calculated in countries where most livestock are not insured, and how to address the issue of carcass disposal in natural disasters, such as cyclones and floods.

142. Dr Willis replied that there is no defined single way to deal with compensation of animal owners; rather there are several options and it is most important that a compensation policy is agreed with affected industries in advance of a significant disease event. He observed that animal carcass disposal issues may arise as a result of natural or man made disasters in addition to disease occurrences, which also could potentially introduce disease. Veterinary Services are responsible for animal carcass disposal, and the principles for carcass disposal are the same, whatever the root cause.

143. The Representative from the WHO observed that it is important that veterinary authorities include public health authorities when developing carcass disposal options for zoonotic

diseases, such as Nipah virus and avian influenza. Dr Willis agreed.

144. The Delegate from Vanuatu commented that there are significant logistical problems in disposal of animals amongst the smaller island states and that cultural values associated with animal and land ownership also need to be considered in developing animal disposal plans. The speaker agreed and observed the veterinary dilemma that the better the job is done, the less disease there is and the more difficult it becomes to convince the public of the importance of dealing with disease when it occurs.

145. The Delegate from Australia reported on the compensation arrangements agreed in his country, which include cost sharing between Federal and State governments and industry. He also noted the power of economics and epidemiology as inputs to critical disease control decisions, such as whether to vaccinate or stamp out. Dr Willis agreed and noted that the level of compensation payable is a balance between obtaining compliance with respect to disease reporting and avoiding incentive to spread disease.

146. The Delegate from New Zealand observed that there are societal pressures, and in some countries cultural restraints already exist, which are very soon likely to preclude mass slaughter of animals in many countries, and that there is a huge communication task for veterinary administrations to change animal industry organisations' views to consider alternative disease control strategies. He also enquired whether the rendering option for disposal has been fully explored. In reply, Dr Willis noted that we need to look more broadly at the rendering industry, particularly the problem of restricting feeding rendered products to ruminants and the economic impact to this industry. He also remarked that there is no single best answer to animal disposal and that multiple options need to be considered.

147. The Delegate from Malaysia indicated that in some countries, such as Malaysia, there simply are no rendering facilities. Dr Willis noted that each country needs to choose disposal options that meet its particular needs.

148. The Representative from the SPC observed that the physical characteristics of many small Pacific Islands prevent deep burial and pyre burning, leaving the only option of burial at sea. Dr Willis replied that he had not considered burial at sea and that the environmental considerations would need to be explored.

149. The Director General of the OIE thanked Dr Willis and the participants for the presentation and discussion, and advised participants of the OIE Working Group on animal disposal

alternatives, which is considering all disposal possibilities. The aim of the Working Group is to inform Delegates and provide guidelines on all available options to enable them to make the best decisions for animal carcass disposal, both in disease outbreaks and natural disasters.

150. Dr Vallat observed that although Veterinary Services had been criticised for stamping out policies, stamping out is still acceptable to the general community in circumstances such as avian influenza, outbreaks that may affect humans. He stressed that all countries must have their own plans and that compensation is a crucial issue for disease eradication. In countries in which resources are not available for compensation, he suggested funds may need to be provided from the international community through a special fund managed by farmers (e.g. cooperatives) and government authorities.

151. The Delegate from France commented, as an observer, that in peace time, planning options must be considered, which will vary according to different situations. She also noted the importance of early disease detection to enable a swift and efficient response. In that respect, veterinary administrations need to look as a priority, at their policies to strengthen overall surveillance and the Veterinary Services.

152. The Representative from the United States thanked Dr Willis and the participants for the presentation and discussion, and remarked that he would be taking many options back to his country for consideration.

153. The Session Chairperson concluded by thanking all the participants, and then requested a small group comprising the speaker Dr Willis, Dr Peter Angus (SPC, Fiji), Dr Derek Belton (New Zealand), Dr Ki Yoon Chang (Korea) and Dr Jill Mortier (Australia) to draft a Recommendation on this technical item.

Wednesday 26 November 2003

ITEM II

Update on developments in aquatic animal diseases

154. Dr Eva-Maria Bernoth, speaker for this Technical Item, was introduced by Dr Syarifah Syed Hassan, Chairperson of the Session.

155. Dr Bernoth commenced her presentation by indicating that countries in the Asia-Pacific region produce approximately 79% of the value and 88% of the volume of aquaculture world-wide. Nevertheless, the aquatic animal sector in the region is not as well provided with professional health services as

the livestock sector. It appears that whilst aquaculture has been growing rapidly in many countries, there has been no matching expansion of a supporting aquatic animal health infrastructure. However, there is relatively good coverage of aquatic animal health at veterinary and non-veterinary undergraduate training, and most countries are taking additional steps to ensure that growing aquaculture industries will be adequately serviced with aquatic animal health professionals (veterinarians or others) in the future.

156. The speaker commented that there are numerous inaccuracies and inconsistencies in aquatic animal disease reporting from Member Countries in the region, and that there is an extremely low level of engagement with the OIE regarding draft texts for the *Aquatic Animal Health Code* (*Aquatic Code*) and the *Manual of Diagnostic Tests for Aquatic Animals* (*Aquatic Manual*). She stressed that it is important that Member Countries fully understand the fundamental changes to the *Aquatic Code* and *Aquatic Manual* that were adopted in 2003. These include the listing of aquatic animal diseases and the requirements for reporting on the status of listed as well as non-listed diseases. Additional and significant changes to the *Aquatic Code* and the *Aquatic Manual* are envisaged for the next few years, and Member Countries' engagement in drafting these texts is essential.

157. Dr Bernoth observed that the rather infrequent contact between fisheries and veterinary authorities, especially in Member Countries where often responsibility for aquatic animal health rests either solely or partly with the fisheries authorities, is of concern, not only because this may contribute to inaccurate disease reporting. Acknowledging that veterinary authorities are usually well experienced in managing terrestrial animal emergency disease outbreaks and that fisheries authorities are familiar with the aquatic environment, closer cooperation between the two agencies seems eminently sensible to benefit the industries whose livelihood may be at stake in a major aquatic disease emergency.

158. In conclusion, Dr Bernoth confirmed that the OIE continues to engage in regional aquatic animal health initiatives, together with the FAO and NACA in the region. Enhanced involvement of both veterinary and fisheries authorities in Member Countries is required to achieve the desired outcomes in areas such as improving the countries' knowledge of OIE standard-setting activities in the field of aquatic animal health and the transparency of epidemiological reporting.

Discussion

159. The Session Chairperson thanked Dr Bernoth for her informative and excellent presentation and opened the floor for discussion.

160. The Delegate from New Zealand commented that aquatic animal diseases were often difficult to diagnose, which contributes to slow reporting. Dr Bernoth replied that the OIE recognises this problem as well as the difficulty to identify closely-related agents. Her recommendation was to report diseases 'pending final diagnosis' if there could be major epidemiological significance to trading partners.

161. The Delegate from Malaysia added that there were limitations in expertise and diagnostic infrastructure in many countries. Dr Bernoth commented that no country can be expected to have full diagnostic capability for all listed diseases, however, there is a network of OIE Reference Laboratories that can be used for advice as well as for full-scale diagnostic testing.

162. The President of the Regional Commission questioned the apparent over-emphasis of PCR techniques used in aquatic animal disease diagnosis. He emphasised the importance of epidemiology and basic laboratory skills, along with specialists in disease investigation. Dr Bernoth agreed and briefly described the approach recommended in the 'Asia Regional Technical Guidelines', which had been adopted by twenty countries in the region in 2000. An accompanying Asia Diagnostic Guide describes three levels of diagnosis: 1) Field including gross pathology, 2) Basic laboratory and 3) Advanced laboratory levels. She explained that the field level was most important and should be the major focus for countries aiming to enhance their diagnostic capabilities. Dr Bernoth also noted that the Asia Diagnostic Guide, which has been developed in consultation with OIE experts, complements the *Aquatic Manual* in providing diagnostic guidance on non-OIE-listed diseases.

163. The Director General of the OIE provided information on OIE policies. He explained the importance of countries' commitments to aquatic animal health under the World Trade Organization's (WTO) SPS Agreement (Agreement on the Application of Sanitary and Phytosanitary Measures). He commented that while this region was the largest producer of aquaculture products it was less active in engagement with the OIE than other regions.

164. Dr Vallat strongly supported all the statements made to Dr Bernoth and advised that the OIE was working to overcome the difference between central and regional animal disease data administration systems by introducing a new system with linkage and interaction. He also urged all countries to work

with their government and fisheries authorities to ensure the flow of aquatic animal health information through the OIE channel, with the support of Member Countries. He offered to write to governments encouraging this matter.

165. The Delegate from India emphasised problems with disease reporting and the need for improved infrastructure for diagnosis and the need for training.

166. Dr Vallat advised that the OIE Central Bureau (Scientific and Technical Department) could assist Delegates to get into contact with the best expertise on aquatic animal health including OIE Reference Laboratories.

167. The following group was proposed to assist the speaker, Dr Eva-Maria Bernoth, in drafting a recommendation on this subject: Dr Jose Molina (Philippines), Dr Gavin Struthers (Vanuatu) and Dr Darunee Tuntasuvan (Thailand).

4th OIE Strategic Plan

168. Dr Gardner Murray, President of the Regional Commission, introduced the session and explained its purpose: to seek comments for inclusion in the 4th OIE Strategic Plan. He referred to two documents that had been circulated, one entitled '4th OIE Strategic Plan' and the other, a report on the outcomes of a meeting of the Regional Commission Bureau that was held on Monday 24 November 2003.

169. The Director General of the OIE described the process of preparing and adopting the Strategic Plan. The Plan is mainly objectives and priorities. He indicated that a work plan would follow.

170. The Delegate from New Zealand suggested that in addition to the working document issues, a key function should be national aquatic issues and the need to clarify OIE Delegates' responsibilities and guidance to Member Countries to have the necessary internal coordination systems.

171. The Delegate from Malaysia suggested that global disease diagnosis and training need to be further developed by the OIE.

172. The Representative from the FAO reported that at the last APHCA meeting, the needs of the region were prioritorised. He suggested that it would be useful to undertake a similar exercise in the OIE and then harmonise with APHCA to allow more efficient use of resources.

173. The President of the Regional Commission agreed that this was a possibility and added that he and the Commission Bureau

could start this process soon - there was no need to wait for a new Strategic Plan.

174. The Delegate from India commented that the circulated documents were well drafted, but that some points needed to be emphasised:

- Regional approaches are very important. There are many for the region, but they are also often political. There needed to be links between these and scientific and trade dynamics in the region.
- In each region, the capabilities of Reference Laboratories need to be strengthened.
- Animal identification and traceability are core issues, both for disease control and production purposes.

175. The Commission President asked for suggestions as to how to assist countries in the region that have little access to the OIE, such as the Pacific Island states.

176. The Delegate from New Zealand added that small island nations would have major problems with their limited infrastructure in the face of a major disease outbreak. He suggested that the OIE play a role in supporting these countries through, for example, regional agreements.

177. The Representative from the SPC noted that the SPC is already providing this type of support, but their resources are limited, and as some island states will never be able to become Members of the OIE, offers of assistance were most welcome.

178. The Delegate from Vanuatu raised the issue that some governments lack the political will to fully participate in the OIE. This was endorsed by the Representative from Papua New Guinea, who also suggested that more out-of-session activity could encourage countries to participate to a greater extent.

179. Dr Vallat observed that many of the points raised by the Regional Commission for Asia, the Far East and Oceania were similar to points raised by other Regional Commissions. He commented on some of the issues that Members had raised:

- Capacity building is already a major focus of the OIE. The OIE is looking to international organisations, such as the FAO and WHO, for national support to build capability.
- Resources for the Regional Representation.
- Sub-regional offices are under consideration.
- Emergency intervention: the OIE has an emergency fund and any Member Country can seek assistance from this fund.

- Traceability can be given priority by the OIE if this is what Members would like.
- OIE contributions: these are much lower than for other international organisations, but there may be a case for a special category for very small countries.

180. The Commission President summed up the key points of the discussion and described the process to provide the comments to the OIE headquarters. A paper will be prepared and circulated, out of session, for comment; a revised paper, incorporating Member Countries' comments, will then be submitted to the OIE. He added that the 4th OIE Strategic Plan would be an item for discussion at the Regional Commission meeting in May 2004.

Presentations by international and regional organisations

181. Dr Desoutter, Conference Chairperson, invited presentations from international and regional organisations.

Food and Agriculture Organization of the United Nations

182. Dr Subash Morzaria, Senior Animal Production and Health Officer of the Regional FAO Office for Asia and the Pacific (RAP) in Bangkok, gave an update on some of the capability building activities of the FAO in the region related to animal diseases and food safety.

183. With regard to training and capacity building, Dr Morzaria mentioned various training courses/workshops held in the region:

- A training workshop was held in July 2003 at the University of Chiang Mai to introduce participants from Asia to the WTO SPS Agreement, food safety and risk analysis and assessment. The course was held in collaboration with the Department of Livestock Development (DLD) of Thailand, University of Chiang Mai, Free university of Berlin and Japan Livestock Technology Association (JLTA). Representatives from 14 countries participated in the course.
- A second training course was held on BSE risk analysis and assessment and a 'hands-on' diagnostic course at the University of Chiang Mai and DLD (Bangkok), respectively. The theoretical course involved decision makers from various countries in the Region while the practical course provided laboratory training on various BSE diagnostic techniques. The OIE, FAO/APHCA and National Institute of Animal Health (NIAH), DLD, THAILAND supported the course.

- A new MSc-level course in veterinary public health has been introduced at Chiang Mai University with technical assistance from the Free University of Berlin and Faculty of Veterinary Medicine of the University of Austria. The course is designed to build capacity in food safety related issues in the region and will initially be open to candidates from the SEA countries. It is expected that the course will be opened to the whole region as resources become available. The FAO, JLTA and OIE will continue to support these activities.

- A one-week training course in epidemiology of transboundary animal diseases was held in collaboration with JICA and DLD in Thailand during October 2003. The course participants originated from Cambodia, China, Lao PDR, Myanmar, Thailand and Vietnam. The course was supported by FAO TCP funds.

- A second training course on laboratory diagnosis of FMD, rinderpest, PPR and classical swine fever was held in November 2003. The practical course covered a range of diagnostic techniques, including PCR, sequencing and ELISAs. The participants originated from China, Vietnam, Thailand and Myanmar. The course was supported by FAO TCP funds. Assistance in the course was provided by IAEA and DLD.

- The FAO also supported participation of four member countries from the SEA region in the 11th International Seminar of the World Association of Veterinary Laboratory Diagnosticians, held in Bangkok in November 2003.

184. Dr Morzaria briefly outlined resource mobilisation activities, commenting that the animal identification and traceability proposal, submitted for TCP funding, has been favourably received by the FAO review committee. The proposal aims to develop animal identification systems in the region to support a range of livestock development activities including transboundary disease control. Although the proposal has been supported by the majority of the member countries, there are still a few countries that have not provided letters of support to obtain approval for funding.

185. The ILRI proposal in collaboration with the FAO, OIE and JICA was developed to support strengthening animal health capacity in the Greater Mekong Region. The proposal, submitted to the Asian Development Bank (ADB), was not supported by the donors. However, ADB has requested a modified proposal on transboundary animal disease control targeting the poor livestock farmers in the Region. This is currently under development and if funded will contribute towards the broader SEA regional plans to control FMD and classical swine fever.

186. A small amount of funding from the regular FAO programme has been secured to support three scoping studies. These are:

- Defining more accurately the animal movement in the Upper Mekong Region (Yunnan Province of China, Myanmar, Thailand and Vietnam.
- Evaluating the economic impact of FMD control in South Asia.
- Support to the 4th WTO-SPS and risk assessment joint training course with OIE, Chiang Mai University and APHCA.

187. Finally, Dr Morzaria reported on an FAO/APHCA meeting held in Lahore, Pakistan, in August 2003 that had identified the following areas as priorities for the region:

- Control of transboundary diseases in Asia.
- Capacity building in food and feed safety and WTO SPS regulations.

Secretariat of the Pacific Community

188. Dr Peter Saville, Animal Health Adviser, Regional Animal Health Service of the Secretariat of the Pacific Community (SPC) in Fiji, briefly outlined the activities of the Regional Animal Health Service of the SPC.

189. The Secretariat of the Pacific Community is an intergovernmental organisation serving the Pacific islands. It is a non-political technical assistance agency with an advisory and consultative role, which provides, on request of member countries and its own initiative, technical advice, training, assistance and dissemination of information in social and cultural fields to twenty-two governments and administrations of the Pacific region. In total, the twenty-two countries contain approximately seven million people who inhabit some 30,000 islands scattered over some thirty million square kilometres. Less than two per cent of this area is land.

190. The SPC Representative observed that the decline in professional capacity among the countries in the region is of greatest concern. Although the total number of veterinarians employed in the region has slightly increased, only 12 of the 22 countries have access to a qualified veterinarian. This reduction in capacity has come at a time when countries are increasingly vulnerable to illegal imports and are being encouraged to liberalise trade and increased tourism.

191. To address this issue, the SPC Animal Health Service has developed a number of strategies to build capacity in the region through training and making animal health information more readily available. Distance-learning materials are being developed to train officers at the sub-professional level in

all aspects of animal health, animal production and quarantine.

192. Dr Saville underlined that the Pacific Island countries and territories have continued to remain free from all List A diseases and rabies throughout 2003. Leptospirosis continues to be recognised as a significant cause of disease including fatalities among the human population in many island countries. A number of activities are being undertaken in island countries to investigate the epidemiology of leptospirosis. Other emerging zoonoses under investigation include *Angiostrongylus cantonensis* and *Trichinella papuae*. The Animal Health Service has also been actively involved in assisting countries to establish BSE freedom.

193. In conclusion, Dr Saville remarked that in order to facilitate import risk analysis and quarantine decision-making, the Secretariat has collaborated with the OIE in the development of PAHIS - the Pacific Animal Health Information System, which will be made available to SPC member countries on CD Rom.

Discussion

194. The Delegate from New Zealand enquired whether the updated animal disease situation information of Pacific Island States available on the PAHIS CD Rom was available to non SPC countries. Dr Saville confirmed that this was the case and the OIE had confirmed that the SPC could release this information to OIE Member Countries.

World Health Organization

195. Dr Mary Elisabeth Miranda, Medical Officer in the WHO Regional Office in Manila, Philippines, gave an update on WHO involvement in national rabies programmes in Asia and the Western Pacific regions:

- Assistance to the Philippine government in the procurement of human and animal rabies biologicals at a low cost, thus ensuring stability of supply at a low price and increasing public access to this health service;
- Outbreak investigations with Ministries of Health with regard to the introduction of rabies in Maluku, Indonesia, and the increasing human rabies deaths in Southern China;
- WHO consultant missions to Lao PDR and Cambodia to provide technical assistance in establishing a national plan of action for human and dog rabies control and strengthening of diagnostic and surveillance capability.

196. Involvement in other zoonoses control activities include: outbreak preparedness and response programmes to zoonoses

present in the region (for example, leptosprirosis and Japanese encephalitis); Joint FAO/OIE/WHO investigative missions on the animal origins of SARS in China; and active participation in the Working Group for the deliberate use of chemical and biological agents to cause harm.

Discussion

197. The President of the Regional Commission asked for more information on the working group for bio-terrorism/counter-terrorism. Dr Miranda clarified the composition of the group and noted that an OIE representative was currently participating.

198. Dr Vallat indicated that the OIE was actively involved in this area at the international level and encouraged Delegates to participate in such fora at the national and regional level.

USDA

199. Dr Robert Tanaka, the Representative from the United States of America and Area Director for Japan and Taipei China of the United States Department of Agriculture (USDA) gave an update on the activities of the USDA in the region.

200. He thanked the conference for the United States being invited to participate in the Regional Commission meeting. He also reported that the USA had recently published for comment a new rule related to BSE and invited Member Countries to contact him if they required any further details.

Activities of the OIE Regional Representation for Asia and the Pacific

201. Dr Teruhide Fujita, OIE Regional Representative for Asia and the Pacific, based in Tokyo (Japan), gave a presentation on recent activities of the Regional Presentation for 2003, implemented under the OIE/Japan Trust Fund Project. The major programmes include (i) Improvement of animal health information systems, (ii) Support to the control of Foot and Mouth Disease (FMD), (iii) Prevention and Control of Emerging Diseases, (iv) BSE Prevention and Control, (v) Standardisation of veterinary medicinal products in harmonization of control methods and techniques, and (vi) Information systems of Aquatic Animal Diseases.

202. Dr Fujita recalled that the OIE *Regional Epidemiology Yearbook*, the *Regional Aquatic Animal Yearbook*, the OIE *Quarterly Reports on Animal Diseases* and *Aquatic Animal Diseases*, respectively, and the *FMD Monthly Reports* were published during the year. The Regional Representation focuses on the improved animal disease information systems

and has held the animal health information technologies meetings for many years including the recent workshop on Animal Information Technology and Introduction of GIS in the Philippines in February 2003.

203. He then briefly outlined the Representation's activities regarding FMD control, reminding participants that the RR Tokyo collects and disseminates the FMD information in the region on a monthly basis. The RR Tokyo works for FMD prevention and control in South-East Asia, in collaboration with the Regional Coordination Unit (RCU) for FMD control campaign in South-East Asia (SEAFMD).

204. Dr Fujita subsequently gave an overview of the various issues handled by the RR Tokyo, such as WTO-SPS matters, emerging diseases and BSE, veterinary drugs harmonisation and aquatic animal diseases. He listed some of the meetings organised or co-organised by the Presentation and his participation in the meetings of other organisations, on these subjects.

205. Dr Fujita recalled that bovine spongiform encephalopathy (BSE), which had formerly been considered as a specific disease in Europe, had spread to other continents including the Middle East, Asia and the Americas. A new programme on BSE was recently initiated and implemented in the region, with the financial support of the government of Japan.

206. With regard to aquatic animal diseases, collection and dissemination of aquatic animal disease information in the region is being carried out for the past years in collaboration with the Network of Aquaculture Centres in Asia-Pacific (NACA).

207. In conclusion, Dr Fujita outlined the specific challenges that the RR Tokyo faces:

- Improve animal health information systems, in particular the OIE Tokyo Web site in relation to the OIE Central Bureau.
- Animal production food safety at farm level and pre-slaughter, an important domain of animal health activities to reduce food-borne risks to human health and to secure consumer confidence in food, in particular livestock products.
- Animal welfare. OIE Tokyo will actively examine measures to support animal welfare, following the OIE Animal Welfare Congress to be held in Paris in February 2004.

Discussion

208. The Delegate from Thailand requested from Dr Fujita that she receive further information on standardisation of veterinary

drugs. Dr Vallat replied that the OIE Collaborating Centre for Veterinary Drugs could provide information on request from Delegates.

209. In reply to a request from the observer from Northern Mariana for clarification on the BSE safety of meat and how consumers should be informed as to BSE risks, Dr Fujita stated that beef muscle is safe.

Activities of the Foot and Mouth Disease Sub-Commission

210. Dr Gardner Murray, President of the OIE Regional Commission for Asia, the Far East and Oceania, and President of the OIE Sub-Commission for Foot and Mouth Disease in South-East Asia, gave a brief overview of the mid-term evaluation of the SEAFMD programme, starting in December 2003.

211. The evaluation would take place from 29 November to 12 December 2003 and a report would then be prepared for submission to the Director General of the OIE and Secretary General of ASEAN by 2 January 2004.

212. The evaluation team would comprise:

- Gardner Murray, OIE
- Ronello Abila, ASEAN
- François Roger, EU
- Shiro Yoshimura, Japan
- Liu Zaixin, Peoples' Republic of China

213. Dr John Edwards, the SEAFMD Regional Coordinator, would provide executive support. The team would visit the Philippines, Cambodia and Thailand (where a workshop would be held). This visit would complement the visits by AUSAID during its review of the programme during 2003.

214. Dr Murray said that meetings were also being held with SEAFMD partners and interested parties during the Regional Conference.

The Southeast Asia Foot and Mouth Disease Campaign

215. Dr John Edwards, Regional Coordinator of the Southeast Asia Foot and Mouth Disease (SEAFMD) Campaign recalled that this Campaign involves the coordinated control of Foot and Mouth Disease by eight countries in the ASEAN region. These countries are Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand and Vietnam. The campaign is coordinated through an OIE (Office International des Epizooties) Regional Coordination Unit (RCU) in Bangkok. The RCU delivers program as agreed by the OIE Sub-Commission for

FMD in Southeast Asia. The RCU now has four staff: Dr John Edwards, Dr Narathip Moungsang (seconded from the Department of Livestock Development), Khun Chutikarn Dhebhasit (part-time Secretarial Assistant) and Mr Tom Chesson (Australian Volunteer). This report marks the completion of the second year of Phase II of the campaign. AusAID is the major donor for this phase of the campaign.

216. The 9th Meeting of the OIE Sub-Commission in March 2003 agreed to the SEAFMD RCU's annual work plan for 2003/04. Dr Edwards briefly outlined the main achievements for the first two years, listing them under the different components adopted:

Component 1: International co-ordination and support

Component 2: Programme management, resources and funding

Component 3: Public awareness and communications

Component 4: Disease surveillance, diagnosis, reporting and control

Component 5: Policy, legislation and standards to support disease control and zone establishment

Component 6: Regional research and technology transfer

Component 7: Livestock sector development including private sector integration

Component 8: Monitoring and evaluation.

217. The SEAFMD Coordinator indicated that the main achievements were the successful conduct of 16 meetings/workshops, the development of plans (communication, private sector and national), strengthened communication and public awareness, establishment of a Private Sector Consultative Committee, development of a long-term strategic vision for FMD control, the signing of an MOU for the MTM Peninsular Campaign, the active engagement of zoning working groups and an interest in greater cooperation by the Peoples' Republic of China.

218. Dr Edwards mentioned that a Mid-Term Review of the Work Plan was conducted in March/April 2003 and the RCU provided support to the review. The outcome was very positive and reported a high level of achievement against project objectives and that in several areas expectations were exceeded. The transition to ASEAN responsibility was one of the areas requiring further work. The OIE/ASEAN Evaluation is scheduled for December 2003.

Discussion

219. The Delegate from Singapore asked for clarification on the progress of Malaysia in achieving FMD free zone status in the southern half of Malaysia. Dr Edwards replied that he hoped

that this could be achieved in less than three years.

Presentation and discussion of Draft Recommendations Nos 1, 2 and 3

220. Draft Recommendations Nos 1, 2 and 3 on the two Technical Items of the Conference and on rabies were presented to the participants and put forward for discussion. All three Draft Recommendations will be presented for adoption at the Friday session with some minor amendments.

Progress with the Regional Consultations on the Global Framework on Trans-boundary Animal Diseases (GF-TADS)

221. Dr Subhash Morzaria, FAO Senior Animal Production and Health Officer for Asia and the Pacific Region, presented a paper, jointly prepared by Dr John Edwards (OIE), on the OIE/FAO-led regional consultation on GF-TADs. He described the origin of the concept, outlined the factors that stimulated the development of the initiative and described broadly the goals, objectives and strategies for the control of TADs. He recalled that GF-TADs was a global initiative aimed at controlling major TADs at source, which is mainly located in endemic areas among poor livestock farming communities. A GF-TADs proposal, currently being developed, will be submitted to the donor community to seek substantial funding to support a number of activities aimed at controlling TADs regionally.

222. The goal of GF-TADs is to safeguard the world livestock industry from repeated shocks of infectious disease epidemics. Successful control of TADs is expected to lead to enhanced global food security, higher incomes for developing countries, improved livelihoods of the poor livestock farmers and safe regional and international trade in animals and animal products.

223. The key components of GF-TADs are the establishment of a global disease information system, strengthening of veterinary services in the developing world and progressive control of priority transboundary diseases linked to improved epidemiological information. A number of candidate priority diseases specific for various regions have been identified. In this list, rabies and bovine spongiform encephalopathy (BSE) have also been identified as requiring special attention.

224. Priorities for Asia were developed through two sub-regional consultations, one in India for South Asia (Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka) and the other for South-East Asia (Cambodia, China, Indonesia, Malaysia, Philippines, Thailand and Vietnam). The final consultation

was held in a special session in the APHCA meeting in Lahore, Pakistan. The key recommendations were as follows:

- FMD and PPR, and FMD and CSF were grouped as the most important TADs in South Asia (SA) and South-East Asia (SEA), respectively.
- Both regions identified the need for continued vigilance to maintain and improve the current free status from either the disease or infection.
- Haemorrhagic septicaemia was also considered important in both regions, but of lower priority than the diseases noted above.
- SEA also considered Newcastle disease, brucellosis, rabies and aquatic animal diseases as important, but again of lower priority in terms of the GF-TADs objectives.
- Both regions considered targeted control programmes based on sound epidemiological and economic impact studies.

225. The APHCA Delegates also identified priority projects in relation to the Region. These were:

- Accelerate the progressive zoning approach for FMD control in SEA. Classical swine fever should be included in the TADs to achieve access to export markets.
- Develop programmes to progressively control FMD and PPR in South Asia.
- Develop control programmes to control and eradicate FMD and PPR in Afghanistan and the Central Asia countries. Note that these countries were not covered in the Asia Region Consultations.

226. Dr Morzaria also discussed the next phase in the GF-TADs development, involving strategies for resource mobilisation. He emphasised the need to develop a carefully structured resource mobilisation strategy, involvement of the regional players, and the importance of investing the majority of the resources to the regional activities.

227. He highlighted the areas in the Asia region that were not covered in the consultations. These included Central Asia, East Asia and Mongolia and the Pacific.

228. Dr Morzaria then requested the Regional Commission to approve the broad GF-TADs recommendations, already endorsed by APHCA Delegates, in order to allow countries that were not present at the APHCA meeting to be involved in this initiative. These recommendations were:

- NOTE the progress with the Regional Consultations on OIE/FAO GF-TADs.
- ENDORSE the recommendations from the SA and SEA Consultations.
- AGREE to support the Consultation on the GF-TADs for East Asia.

Discussion

229. The OIE Director General welcomed the approach being taken by the FAO in this initiative and indicated that an international donors conference will be organised early next year, involving both the OIE and FAO to progress this programme. He reported that CGIAR had, unfortunately, already declined to support 'challenge programmes' in veterinary research, and believed that there is a lack of understanding in some donor organisations as to the significance of transboundary animal diseases. He insisted on the importance of strengthening the Veterinary Services of Member Countries within development programmes.

230. The Delegate from India encouraged Member Countries to support the recommendations presented by Dr Morzaria and requested the OIE to encourage governments of Member Countries to support animal health research programmes.

231. Dr Vallat proposed that the conference note these recommendations, but also emphasised the significance of rabies control, aquaculture and Veterinary Service infrastructures to the region. The Conference endorsed this approach.

Genetically modified organisms and wildlife control

232. Dr Jill Mortier, member of the Australian delegation, presented an item on developing international standards for the release of specific GMOs to control wild animals.

233. There is concern that GMOs could spread through dissemination to countries that have completely different management objectives to the country of origin. An example is to be found in the European rabbit in Spain.

234. In Spain, this animal is conserved and research is being conducted on using a modified myxoma virus to disseminate protective immunity to rabbit haemorrhagic disease and myxomatosis. On the contrary, both of these diseases are used as tools to control the rabbit population in Australia where rabbits are a major introduced pest. In Australia, a different modified myxoma virus is under development to disseminate immuno-sterility in female rabbits.

235. The aims of the two countries in using their GMO are quite different and transfer of the GMO developed in one country to the other country could have serious consequences.

236. Currently, no international body sets standards in this area and Dr Mortier asked whether the OIE would be the best organisation to set these standards.

Discussion

237. The President of the Regional Commission endorsed the significance of this issue and suggested that Australia present a paper to the OIE Wildlife Working Group on this issue.

238. The Director General of the OIE indicated that the Wildlife Working Group had already considered this issue, but had not supported this approach. However, he suggested that a relevant paper should be presented by an Australian scientist to the Wildlife Working Group and involving the Scientific Commission. He also commented that the OIE must clarify its responsibility in light of the Cartagena Protocol, and would report to the International Committee in May 2004 on this issue.

Date, venue and agenda items for the 24th Conference of the OIE Regional Commission for Asia, the Far East and Oceania

239. The Conference Chairperson asked Delegates present if one of their countries wished to host the 24th Conference of the Regional Commission for Asia, the Far East and Oceania. On behalf of the Government of his country, the Delegate from Korea indicated his interest in inviting the Regional Commission to hold its next Conference in his country in November 2005. He commented that it would be confirmed at the Regional Conference in May 2004. This was unanimously supported and applauded by the participants. The Conference Chairperson thanked the Delegate from Korea.

240. Topics for the technical items of the next Regional Conference will be discussed at the meeting of the OIE International Committee in May 2004.

Thursday 27 November 2003

Field trips

241. Participants found the field trips organised by the host country to an aquatic production station and three cattle and deer breeding stations to be of great interest, and also enjoyed the excellent lunch and visit to the Tjibaou cultural centre. They extended their sincere thanks to the organisers for their kind hospitality.

Friday 28 November 2003

Adoption of the Draft Final Report and Recommendations

Closing Ceremony

Second draft

23rd Conference

of the

OIE Regional Commission for Asia, the Far East and Oceania

Noumea (New Caledonia), 25-28 November 2003

Recommendation No. 1

Animal carcass disposal methods (including rendering) in animal disease outbreaks

CONSIDERING THAT

Stamping-out is a frequently used method of animal disease eradication,

Animal disposal is an integral part of the stamping-out process to stop the spread of disease,

Animal carcass disposal technologies vary in their effectiveness of pathogen inactivation and in their potential impact on the environment,

There is a growing trend of negative public reaction to mass animal slaughter and to some methods of carcass disposal, and towards demanding alternatives,

Animal production is increasingly producing greater numbers of livestock on small geographic areas, potentially producing large numbers of carcasses for disposal in a disease outbreak,

Most methods of animal carcass disposal create a massive waste of animal protein,

THE OIE REGIONAL COMMISSION FOR ASIA, THE FAR EAST AND OCEANIA

RECOMMENDS THAT

1. Veterinary administrations evaluate the parameters of animal disposal options in preparation for making a decision on the most suitable technology for their circumstances.

2. Veterinary administrations pay special attention to the appropriateness of specific technologies for the disposal of prion infected carcasses.

3. Veterinary administrations place more emphasis on developing alternative approaches for animal carcass disposal.

4. Veterinary administrations consider the logistical requirements for the rapid disposal of large numbers of carcasses and focus attention on high density livestock production areas within their own countries.

5. Veterinary administrations review and resolve any complexities and conflicts in jurisdiction and regulations.

6. The OIE Regional Representation for Asia and the Pacific consider guiding assistance to specific Member Countries for training in technical and financial preparedness for mass animal disposal.

7. Veterinary administrations establish an animal disease crisis management framework that includes key government and industry organisations in advance of a disease outbreak.

8. Veterinary administrations establish communication linkages with the public and the media in advance of a disease outbreak.

9. Veterinary administrations consider developing capability in more environmentally responsible carcass disposal technology and if possible technology that is mobile.

10. The OIE Regional Representation consider aiding Member Countries in the development and implementation of emergency plans and simulation exercises to test technical and logistical preparedness for animal carcass disposal.

11. The OIE investigate whether animal carcass disposal at sea is a legitimate option taking into consideration international laws and conventions of the sea.

12. Veterinary administrations consider when appropriate predictive and prevention policies, as well as treatment or vaccination alternatives to stamping out.

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Noumea (New Caledonia), 25-28 November 2003

Recommendation No. 2

Update on developments in aquatic animal diseases

CONSIDERING THAT

Aquaculture has been growing rapidly in many countries in the region and is predicted to continue to grow in all Member Countries,

There has not been a matching expansion of a supporting aquatic animal health infrastructure, and the aquatic animal sector in the region is currently not as well provided with diagnostic and professional health services as the livestock sector. Member Countries see an increasing role for health professionals (veterinarians and others) in their country,

In some Member Countries, fisheries authorities have either the sole responsibility for aquatic animal health or share it with the Veterinary Services. In these countries, fisheries authorities would take the lead in mounting an emergency response to an aquatic animal disease outbreak, and the Veterinary Services are usually well experienced in managing terrestrial animal emergency disease outbreaks, but there is infrequent contact between the two,

In many Member Countries, draft texts for the *Aquatic Code* and the *Aquatic Manual* reach aquatic animal health experts either too late or not at all, resulting in few official comments. This means that Member Countries do not sufficiently use the opportunity to influence the setting of international standards that underpin international trade,

Fundamental changes to the *Aquatic Code* and *Aquatic Manual* have been adopted in 2003. These include the listing of aquatic animal diseases and the requirements for reporting on the status of listed diseases. It is important that Member Countries fully understand these new arrangements and accept and fulfil their obligations on disease reporting,

Most Member Countries provide annual and quarterly aquatic animal disease reports, but there are numerous reporting errors such as the use of inappropriate symbols; the provision of conflicting information to the OIE's Tokyo Office and to the Central Bureau; and not reporting new disease occurrences that would be of major epidemiological significance to other countries in the region,

The OIE continues to engage in regional aquatic animal health initiatives, together with the FAO and NACA, but enhanced involvement of both veterinary and fisheries authorities within Member Countries is required to achieve the desired outcomes in areas such as improving Member Countries' knowledge of OIE standard-setting activities in the field of aquatic animal health and the transparency of epidemiological reporting.

THE REGIONAL COMMISSION FOR ASIA, THE FAR EAST AND OCEANIA
RECOMMENDS:

A) THAT THE OIE:

1. Reinforce to Delegates their responsibility to the OIE for terrestrial as well as aquatic animals.

2. Encourage Member Countries to strengthen veterinary and other tertiary education in aquatic animal health.

3. Request Member Countries to clarify the roles and responsibilities for aquatic animal health assigned to veterinary and other authorities in their country.

4. Provide opportunities to assist cooperation between veterinary and other authorities responsible for aquatic animal health in Member Countries, for example, by inviting other authorities to attend OIE-sponsored conferences/workshops that have an aquatic theme.

5. Direct efforts at increasing general awareness with national Delegates world-wide about, for example, the provisions of the *Aquatic Code* and *Aquatic Manual*.

6. Request the Aquatic Animal Commission to provide regular updates of the *Aquatic Code* and *Aquatic Manual* at Regional Commission Conferences or other suitable venues.

7. Direct efforts at obtaining more comments on draft texts for the *Aquatic Code* and *Aquatic Manual* from a larger number of national Delegates, for example, consider from the Delegates of Member Countries the nomination of an 'aquatic national focal point' as a parallel recipient of Aquatic Animal Commission reports on behalf of national Delegates.

8. Provide Member Countries with the necessary assistance and guidance on accurate, timely and effective aquatic animal disease reporting.

9. Continue to cooperate with relevant international and regional organisations to increase awareness about aquatic animal health in the region, to improve disease reporting and to foster cooperation between veterinary and fisheries authorities within countries.

B) THAT THE MEMBER COUNTRIES:

1. Direct efforts at improving the coverage of the aquatic sectors with health services and strengthen veterinary and other tertiary education in aquatic animal health.

2. Clarify the roles and responsibilities for aquatic animal health assigned to veterinary and other authorities in their country.

3. Request their Veterinary Services to improve the communication and cooperation with fishery authorities, especially regarding disease reporting and disease emergency responses.

4. Where primary responsibility for aquatic animal health rests with an authority other than the Veterinary Services, nominate an 'aquatic national focal point' from the other authority, so that the OIE may circulate Aquatic Animal Commission reports to the 'aquatic national focal point' at the same time as when circulating to national Delegates (providing comments back to the OIE must take place through, and with the endorsement of, the national Delegate to the OIE).

5. Significantly enhance circulation of draft texts for the *Aquatic Code* and *Aquatic Manual* amongst experts, and provide comments through the national Delegate to the OIE.

6. Significantly improve the quality of aquatic animal disease reports, and request the OIE's assistance where clarification is needed.

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OIE Regional Commission for Asia, the Far East and Oceania
Noumea (New Caledonia), 25-28 November 2003

Recommendation No. 3

Rabies control and prevention in Asia and the Pacific

CONSIDERING

That rabies is a re-emerging disease globally, and that over half the estimated global number of human rabies deaths occur in Asia (36,000 deaths of which 50% are children),

The importance of animal rabies, particularly dog rabies, is a constant risk to human health and a potential threat to all rabies free countries of the region,

Canine rabies has been spreading to areas in the region particularly islands that were historically free from rabies,

The most cost-effective means of eradicating rabies requires the control of dogs and dog vaccination,

The necessity of intersectorial collaboration between public health and veterinary sectors in order to develop integrated strategies for effective prevention and control of animal and human rabies infection,

The agreement of WHO authorities to develop joint recommendations with the OIE in the field of rabies,

THE OIE REGIONAL COMMISSION FOR ASIA, THE FAR EAST AND OCEANIA

RECOMMENDS THAT

1. A joint international conference be organised by the OIE and WHO to establish the technical basis for the eventual official recognition and maintenance of rabies freedom (including provisional freedom) in countries or zones.

2. All countries/zones in the region ensure they have adequate controls to minimize the risk of introducing rabies, particularly canine rabies.

3. The Veterinary Services of rabies infected countries of the region initiate or enhance activities for the control and elimination of rabies, particularly canine rabies, and liaise with counterparts in the Ministry of Health to assist them to better target the application of human rabies post-exposure treatments because of its limited supply and high cost.

4. Member Countries enhance collaboration with the OIE, WHO and other international organisations to develop effective integrated strategies for the control and eventual elimination of rabies in the region.

5. Member Countries collaborate in their efforts to mobilise financial and human resources to strengthen national and regional systems for surveillance, organized mass dog vaccination and dog population control and increased public awareness to ensure effective control and prevention measures.

6. The OIE and WHO provide technical support to enhance national, regional and international animal and human surveillance and public health interventions, and update and standardise guidelines for the control of animal and human rabies and ensure maintenance of rabies-free countries and zones in the region.

7. The OIE and WHO mobilise and sustain international efforts and funding to control and, where possible, eradicate rabies.

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