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EXECUTIVE SUMMARY

The 15th Meeting of the OIE Sub-Commission for Foot and Mouth Disease (FMD) in South-East Asia was held from 9 to 13 March 2009 in Kota Kinabalu, Malaysia. The meeting was well attended with approximately 100 participants that included the delegates from the SEAFMD members, observers, international donors/organisations, private sector and other partner organizations. The meeting was divided into three parts with the first three days dedicated to presentations of sub-regional and individual member status report vis-à-vis the eight components of the SEAFMD campaign, global and sub-regional FMD status, scientific presentations on the advances in FMD diagnosis, surveillance and control strategies, and a workshop of Delegates and Observers to develop recommendations to further improve the SEAFMD campaign in line with SEAFMD 2020 Roadmap. A one-day field trip was held to visit Mount Kinabalu National Park. A special meeting was held on the last day to discuss the initiatives on One World One Health, current status of Avian Influenza, and progress with OIE/AusAID Programme on Strengthening Veterinary Services in South-East Asia.

High ranking officials from the OIE and Malaysian government delivered key messages during the Opening Ceremony. The Director General of the Department of Veterinary Services (DVS) of Malaysia, Dato’ Dr Aziz Jamaluddin, welcomed the participants and thanked the State of Sabah for hosting the meeting. Dr Gardner Murray, President of the OIE Sub-Commission for FMD control in South-East Asia noted the significance of holding the meeting in an OIE designated FMD Free Zone, and emphasised the challenge of controlling and eradicating FMD, including the importance of maintaining freedom once achieved. Dr Bernard Vallat, Director General of the OIE, thanked the Government of Malaysia, Honourable authorities of Sabah, and the Malaysia Veterinary Services for hosting the meeting. He thanked all the member countries for their high commitment to respect the objectives of SEAFMD Campaign, and the continued funding from Australian government through the AusAID for giving support for the next two years of Campaign. Datuk Seri Panglima Haji Yahya Hussin, the Deputy Chief Minister, on behalf of the Right Honourable Chief Minister of Sabah, officially opened the meeting.

The meeting reviewed the status of FMD in South-East Asia and the rest of the world. Countries and zones in South-East Asia recognised as FMD free without vaccination were maintained. No outbreak was reported in the Philippines since December 2005, and application for OIE recognition of Luzon zone as FMD free is being pursued. Outbreaks of FMD in the mainland of South-East Asia continue. FMD virus serotype O South-East Asia topotype remains the most common strain circulating. Serotype A outbreaks relatively increased in Thailand and Vietnam in 2008 compared to 2007. It was observed that serotypes Asia 1, Cathay and Pan-Asia topotypes of serotype O which had been causing some outbreaks in the previous years, were not reported in 2008. For countries outside the sub-region, it was noted that there was a continued spread A-Iran-05 in the Middle East, recurrence of SAT 2 in some countries in Africa, the appearance of serotype An in PR China and re-emergence of serotype O Cathay topotype in Chinese Taipei.

Some of the major issues raised during the meeting included: Continued support from AusAID through provision of funds for Phase III of SEAFMD Campaign (2009-2011); invitation of PR China to join the SEAFMD members, given the strong participation in the programme and that PR China neighbours existing SEAFMD member countries; OIE encouraged member countries to take a more active part in standard setting procedures, and that SEAFMD should assist with this, noting specifically the Philippines application for FMD freedom; the continued development of the ARAHIS/WAHIS Regional Core for reporting and the need for improved reporting from member countries; continued evolution of programmes from HPAI, to Emerging Infectious diseases to a ‘One Health’ concept; and the continued progress of the One Health Programme with the support of the EC.

The meeting was considered highly successful and the governments of Sabah and Malaysia were thanked for their excellent work in hosting the meeting.
Recommendations and major statements from the 15th Meeting of the OIE Sub-Commission for FMD in South-East Asia
Kota Kinabalu, Malaysia, 9–13 March 2009

Component 1: International coordination and support

1. NOTE that the OIE and members continue to support improvements in the good governance of Veterinary Services using OIE Standards on quality as well as OIE PVS Tool.

2. NOTE that existing coordination mechanisms such as GF TADS play a key role as consultative fora for animal health including defining specific roles and responsibilities for key sectors or organisations.

3. ENCOURAGE governments and inter-governmental or supra-national organisations to strengthen support to Veterinary Services, by providing the necessary political support and resources to enhance lead role in fighting animal diseases, including relationships with the public health sector when referring to zoonoses, and NOTE that participants of SEAFMD will attend the expert consultation in Winnipeg Meeting on One World One Health from 17 to 19 March 2009, and will actively convey this message.

4. NOTE that OIE supports the proposed study on how best to reinforce the “bridge” between ASEAN and the OIE SEAFMD, and NOTE that OIE offers to provide funding support.

5. ENCOURAGE Veterinary Services representatives to attend Codex meetings in order to bring understanding of the links between animal production and food safety.

6. AGREE that PR China be officially invited to become a member of the SEAFMD programme.

7. AGREE to present the SEAFMD Programme at the Global FMD Conference in Paraguay in June 2009 as a model to be followed in other regions for FMD and other transboundary animal diseases prevention and control.

8. NOTE the enabling ASEAN/Australia/New Zealand Free Trade Agreement (AANZ FTA) and EXAMINE the implications for SEAFMD members including funding support for specific projects through the Co-operation Article.

Component 2: Programme management, resources and funding

9. CONGRATULATE Dr Loganathan Periathamby from DVS Malaysia and Dr Prasit Chaitaweesub from DLD Thailand on their election as Vice-Presidents of the OIE Sub-Commission on FMD Control in South-East Asia.

10. THANK AusAID for providing AUD 2.6 Million to support the SEAFMD Campaign from March 2009 to June 2011.

11. ENCOURAGE Governments of Member States to provide adequate budgetary allocations as well as seek external funding to support the full implementation of national plans; and seek other potential sources of funds from other donors.

12. ENCOURAGE ASEAN to develop all necessary mechanisms to enable the Animal Health Trust Fund to become fully operational NOTING the study for reinforcing the “bridge” between ASEAN and OIE will be launched using OIE resources with possible EC support.

13. SUPPORT the proposed OIE socio-economic studies on cost benefits of veterinary services in order to demonstrate to policy and decision makers that animal disease prevention is considerably cheaper than responding to crises.

14. SUPPORT the proposal from the Philippines for an extension to the FMD Eradication Project in Philippines using project savings; and AGREE that the Sub-Commission President write to AusAID to this effect.

15. ENDORSE the SEAFMD workplan 2009/10; and NOTE that the new plan will have seven components because the existing Monitoring and Evaluation Component will be integrated throughout the document.
16. AGREE that Members consider how best to engage policy/decision makers to provide political commitment to FMD programmes.

17. NOTE the EC funding proposal of 20 Million Euro to support the prevention and response to cross-border Highly Pathogenic Emerging and re-emerging Diseases (HPED) in Asia.

18. AGREE that compensation with legislative underpinning is critical to the success of the major animal disease programmes.

19. NOTE the development of the Roadmap Toolkit and AGREE that six Chapters be subject for final editing and uploaded to the web by the end of June 2009.

20. AGREE that the RCU together with the SEAFMD National Coordinators develop mechanisms to support the SEAFMD campaign through investments on human resources and institutions.

**Component 3: Public awareness and communication**

21. REQUEST the RCU to develop a Field Manual on Communication to support FMD control, similar to the Outbreak Investigation Manual.

22. NOTE that the SEAFMD public awareness programme will link with the PSVS Communication Programme when established.

23. AGREE that national veterinary services nominate an officer who will be trained on risk communications for disease emergencies.

**Component 4: Disease surveillance, diagnosis reporting and control**

24. CONGRATULATE the RRL Pakchong for achieving OIE Biological Commission’s support for recognition as an OIE FMD Reference Laboratory; and SUPPORT the final recognition by the OIE General Assembly in May 2009 of the RRL’s Reference Laboratory status.

25. AGREE that vaccine policies including provision of necessary resources and blanket vaccination in epidemiologically relevant situations be applied as part of the progressive zoning approach.

26. AGREE on the importance of post vaccination serology and that countries conduct post vaccination sero-surveillance to determine vaccination effectiveness and AGREE that funding be sought for this critical activity.

27. AGREE that donors be encouraged to support capacity building activities at National Laboratories to improve FMD diagnostic capacities.

28. AGREE that National Laboratories comply with OIE International Standards as established in OIE Manual for Biological Tests and Vaccines.

29. AGREE that epidemiological surveillance including serology described in the OIE Code be applied to progressive zoning.

30. AGREE that SEAFMD RCU provides the necessary guidance and support to countries when applying for official recognition of FMD Free Status to the OIE, and that the Philippines be the priority country, followed by applications from other countries for Freedom recognition.

31. ENCOURAGE members to develop harmonised Outbreak Identification System (OIS) to link Lab samples, and use the OIS in reporting to RCU through the WAHIS Regional Core.

32. AGREE that the RCU distribute disease outbreak information quickly to member countries, including the use of online reporting to ARAHIS for early warning.

33. ENCOURAGE the submission of more and better quality specimens/samples to national laboratories, the RRL and WRL.
34. NOTE that 600 veterinary personnel have been trained on Outbreak Investigation and ENCOURAGE members to organize more training in collaboration with OIE, FAO and other partners; and AGREE that the revised manual and syllabus be used as standard training course on Outbreak Investigation among members.

35. NOTE the reports on the serotype A outbreaks in PR China and Cathay serotype O in Chinese Taipei.

36. NOTE the JICA activities on surveillance and information systems.

37. AGREE that the RCU work with members and draft a document to guide members on tendering for appropriate vaccines, in compliance with the OIE manual.

38. NOTE the FAO/APHCA FMD vaccine supply arrangements and NOTE the EC proposal to support the development of an FMD vaccine bank; and AGREE this be established as soon as possible.

39. SUPPORT the proposed GIS training programme.

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

40. NOTE the outcomes of the Philippine application for FMD freedom and its implications for other SEAFMD members in the context of SEAFMD 2020; and SUPPORT the submission of a new Philippines application with the objective of gaining FMD freedom recognition at the May 2010 General Assembly noting that there have been no FMD outbreaks in the Philippines for over three years.

41. AGREE that the RCU provide the necessary guidance and support to countries when applying for official recognition of FMD Free Status to the OIE, NOTING the Philippines will be given priority followed by applications for other Zones for Freedom recognition.

42. AGREE that RCU in collaboration with member countries, study the current OIE FMD Code chapter, and draft proposals to amend to the FMD chapter based on the conditions of the epidemiological situation of the sub-region.

43. ENCOURAGE members to be actively involved in providing comments on OIE Standards and NOTE that this matter will be discussed at the National Coordinators meeting in August 2009.

44. ENDORSE the recommendations of the 9th MTM, 7th LMWG and 8th UMWG meetings (see Appendices XXIV, XXV, and XXVI).

Component 6: Regional research and technology transfer

45. NOTE the outcomes of the SEAFMD/AB-CRC FMD Research Analysis Study, SUPPORT the proposed programme and AGREE to prioritise projects in collaboration with members.

46. SUPPORT the proposed FMD socio-economic studies including gender issues.

47. NOTE the range of existing and proposed research projects which have relevance to the SEAFMD programme, including the Australian Biosecurity Cooperative Research Centre.

48. AGREE that countries improve their submission of samples to reference laboratories both for genotyping as well as vaccine matching.

49. AGREE that sharing of relevant information on outbreaks and FMD virus field strains be encouraged to improve vaccine development and control.

50. AGREE that mechanisms to improve submission of samples (quality and quantity) to reference laboratories be developed by the RRL Pakchong with support from the RCU.

Component 7: Livestock sector development including private sector integration

51. NOTE the ongoing engagement of private sector, ENCOURAGE more active involvement of the industry, SEEK the views of the Private Sector Consultative Committee with members, and CONSULT with ASEAN for information and advice on private sector involvement.
52. EXPRESS thanks to the Government of Malaysia, State Government of Sabah, Department of Veterinary Services and Department of Veterinary Services and Animal Husbandry of Sabah, hosting an outstanding and successful meeting.

53. THANK AusAID-Australia, New Zealand, France, Japan, Thailand, OIE Asia Pacific, FAO, JICA, private sector and other donors and organizations for their support and contributions to SEAFMD Campaign.

54. THANK Ms Nichola Hungerford for her valuable contributions for the improvements of the SEAFMD communication programme and support to the RCU.

55. REQUEST that Myanmar consider hosting the next meeting in March 2010.
Recommendations from the Special Meeting of the 15th Meeting of the OIE Sub-Commission for FMD in South-East Asia on “HPAI, One Health and PSVS”

Kota Kinabalu, Sabah, Malaysia, 13 March 2009

THE SPECIAL MEETING OF THE 15TH MEETING OF THE OIE SUB-COMMISSION FOR FMD IN SOUTHEAST ASIA ON HIGHLY PATHOGENIC AVIAN INFLUENZA, ONE HEALTH AND STRENGTHENING OF VETERINARY SERVICES:

1. STRONGLY SUPPORTS OIE continuing Global Programme of Strengthening Veterinary Services, through the OIE PVS Process, using the OIE PVS Tool for the evaluation of the Performance of Veterinary Services, as well as its complementary assistance activities and projects, namely: PVS Gap Analysis, PVS Follow Up, Twinning Projects, Legislation project and capacity building and training activities.

2. STRESSED the importance of reinforcing the collaboration between animal health and public health sectors highlighting the key primary role of VS in relation to the animal-human interface when dealing with zoonoses and AGREED that the best strategy is to tackle such diseases at their source at the animal population.

3. ENCOURAGED Member countries in Asia and the Pacific and other stakeholders to actively participate in the programme of Regional GF-TADs to strengthen activities of control of transboundary animal diseases including zoonoses.

4. HOLD FURTHER Sub-Regional Meetings in Asia and the Pacific to further elaborate control strategies of the targeted diseases, before the 3rd GF-TADs Regional Steering Committee in 2009.

5. NOTED the two components (the 5-year Project; 2008-2012 and 2-year Project; 2008-2009) of the OIE/J(S)TF Project for Strengthening HPAI Control in Asia, should be combined including with other HPAI projects, to further strengthen capacity building of National Veterinary Services in the control and of preventing HPAI in Asia.

6. SUPPORTS surveillance of wild birds as well as poultry along migratory flyways on Avian Influenza should be strengthened for more information about HPAI epidemiology and for effective awareness and preparedness for the disease.

7. WELCOMED the policy developments championed by the European Commission: from the response to the Avian Influenza crisis to addressing all highly pathogenic or high impact emerging and re-emerging diseases and more recently to promoting the “One World, One Health” -or “One Health”- approach.

8. ACKNOWLEDGED the need to address diseases at the interface between animals, humans and ecosystems, in the framework of “One Health”, since they represent a major risk for human security and in particular for the livelihood of the poorest.

9. ENCOURAGED regional institutions -in particular ASEAN, SEAFMD and its member countries to address the gender dimension of the Avian Influenza crisis and of the prevention of, and response to, major infectious diseases in general, taking into consideration the findings and conclusions of the study conducted by the European Commission in June 2008: “Gender Aspects of the Avian Influenza Crisis in South-East Asia”.

10. ACKNOWLEDGED the importance of structural molecular analysis of H5N1 HPAI virus isolates in the region and RECOMMEND that regional assessment of HPAI risk in Asia should consider the value chain of analysis, distribution of virus clades, farming system and socio-economic context to better target disease control intervention.

11. ACKNOWLEDGED the progressive shift from HPAI into addressing the larger issue of emerging and re-emerging infectious diseases using the broad principles of One World One Health.

12. SUPPORTS broadly the strategic framework developed by the international agencies (FAO, OIE, WHO, UNICEF, UNSIC) and the World Bank, and also recognised the complex nature of the problem and the challenges that lie ahead with regard to mobilisation of resources and implementation, and the need to further develop adaptive policy responses.
Republic of Korea

13. NOTED that Republic of Korea is planning to hold a workshop in 2009 on outbreak investigation and animal movements and will be in contact with countries with details.

General

14. THANKS the Government of Malaysia for hosting the meeting.
1. INTRODUCTION

The 15th Meeting of the OIE Sub-Commission for Foot and Mouth Disease (FMD) in South-East Asia was held from 9 to 13 March 2009 in Kota Kinabalu, Malaysia. The meeting was well attended with participants including Dr Bernard Vallat, Director General of the OIE; Dr Gardner Murray, President of the OIE Sub-Commission for FMD in South-East Asia; Dato Dr Aziz Jamaluddin, Director General of the Department of Veterinary Services (DVS), Malaysia, and; Dr Ronello Abila, Regional Coordinator of the SEAFMD Regional Coordination Unit. The participants of the meeting included delegates from the SEAFMD member countries, other key countries, international organisations, and members of the private sector.

The 15th Meeting of the OIE Sub-Commission for Foot and Mouth Disease in South-East Asia was opened by the Right Honourable Deputy Chief Minister of Sabah, Datuk Seri Panglima Haji Yahya Hussin. The meeting included three major components: The 15th Meeting of the OIE Sub-Commission for FMD in South-East Asia; a special meeting on HPAI, ‘One Health’ and PSVS; and a field trip to Mount Kinabalu National Park.

2. OPENING CEREMONY

The Director General of the Department of Veterinary Services (DVS), Malaysia, Dato’Dr Aziz Jamaluddin welcomed the participants of the meeting. He thanked the Honourable Deputy Chief Minister of Sabah for taking time to come and open the meeting; the DVS for hosting the meeting, and the OIE for selecting Sabah to host the meeting. The organising committee was thanked for their untiring effort in making the meeting a success. He closed by wishing all a fruitful meeting and a memorable stay in Sabah. The full speech of the Director General of DVS is provided in Appendix 03.

Dr Gardner Murray, President of the OIE Sub-Commission for FMD control in South-East Asia noted the significance of holding the meeting in an OIE designated FMD Free Zone, and emphasised the challenge of controlling and eradicating FMD, but also the importance of maintaining freedom once achieved. Dr Murray described the progress of the SEAFMD Campaign, noting the achievements under each of the Phases of the Campaign. He described how the current Phase III is one of consolidation and expansion. Some significant components of this phase will include: extension of SEAFMD members to include China, more emphasis on socio-economic issues and impacts of FMD, more training and further engagement of industry. Dr Murray noted that the funding from AusAID now appeared to be forthcoming and thanked New Zealand for their significant financial contributions to the programme, noting also the contributions of Japan, FAO and the Member Countries. Dr Murray concluded by saying that FMD is an insidious disease but impacts heavily on production and market access. He stated that SEAFMD continues to work towards control and eradication of FMD in the sub-region, and also acts as a model for sub-regional control of other Transboundary Animal Diseases and is consistent with the One World One Health concept. Dr Murray thanked the Government of Sabah and the DVS for hosting the meeting and the organising committee for their excellent arrangements in Kota Kinabalu. The full speech of Dr Murray is provided in Appendix 04.

Dr Bernard Vallat, Director General of the OIE, in his speech stated that the main objective of this conference is to control FMD in the sub-region by joining forces of all countries. He thanked the Government of Malaysia, Honourable authorities of Sabah, and the Malaysia Veterinary Services for hosting the meeting. Thailand was thanked for continuing to host the SEAFMD Regional Coordination Unit and the PSVS Programme. He thanked all the member countries of SEAFMD for their high commitment to respect the objectives of SEAFMD, PSVS and other programmes managed by OIE Paris and OIE Tokyo.

Dr Vallat noted the high level of participation from China, and as China borders SEAFMD members, he called on Chinese colleagues to consider officially joining the group of SEAFMD members as soon as possible. Dr Vallat thanked the donors, particularly Australia through AusAID for its continued funding to SEAFMD for the next two years. He also thanked Thailand for hosting the RCU and the support from Japan, New Zealand and France. He also welcomed the announcement from the representative of the European Commission (EC), stating that the new commitment will greatly assist us in reaching the objectives of the 2020 Roadmap. Other key points raised in the opening speech of Dr Vallat included: the application of the Philippines for OIE recognition of FMD freedom with vaccination, and the importance of SEAFMD supporting the Philippines in making their next application; continued funding from AusAID for the next two years for the SEAFMD Campaign; OIE’s commitment to work in full...
cooperation with ASEAN and with FAO on a global and a regional basis; and confirmation that Pak Chong will be recognised as an OIE Reference Laboratory for FMD. Dr Vallat concluded by inviting all participants to the Conference for Global Control of FMD, organised by OIE and FAO with support of EC in Paraguay in June 2009. He noted that the 2020 Roadmap will be considered as an excellent model for other regions. The full speech of Dr Vallat is provided in Appendix 05.

The meeting was opened by Datuk Seri Panglima Haji Yahya Hussin, the Deputy Chief Minister, on behalf of the Right Honourable Chief Minister of Sabah. He thanked the OIE for choosing Malaysia and specifically Sabah as the host for the 15th Meeting of the OIE Sub-Commission. The natural beauty and attractions of Sabah were described and all participants welcomed to Kota Kinabalu. The potential impact of the economic downturn on national preparedness to handle disease outbreaks was noted. He stated that emergence and re-emergence of infectious diseases represents a transnational policy issue and cannot be resolved by national governments alone, noting the value of OIE’s presence in the region. Achievement of OIE free zone status for FMD in Sabah and Sarawak was described, and all parties whose assistance lead to declaration of freedom from FMD in Eastern Malaysia were thanked. The Right Honourable Chief Minister noted the positive effects felt since achieving freedom from FMD, including: development of the livestock production sector and improvement in the standard of living for rural farmers. The full speech of the Right Honourable Chief Minister of Sabah is provided in Appendix 06.

3. UPDATE ON THE WORLD SITUATION IN RELATION TO FMD

Dr Jef Hammond, Head of the World Reference Laboratory (WRL) for FMD in Pirbright, United Kingdom, provided an update on the World Situation in Relation to FMD. Dr Hammond opened by stating the commitment of himself and of the WRL to the SEAFMD Campaign. An Overview of the role of the WRL and the current activities were presented, these can be seen in Appendix 07. Some key issues were raised with regard to sample submission and included: samples are being submitted from countries and areas which have either never sent samples before, or have not sent samples for a long time, such as Somalia and Nigeria; and that the number of samples sent from SEAFMD member countries is low and continues to fall. Member countries were encouraged to increase the number of samples sent to WRL. In addition to requesting that member countries submit more samples to WRL, Dr Hammond requested that they also provide more information on the location of the outbreak from which the sample was collected and to provide GPS reference where possible.

Some of the main events were presented in terms of distribution of FMD serotypes globally, key information included: serotype distribution in Vietnam; continuation of Asia 1 in China, the occurrence of A-Iran-05 in Turkey and its subsequent spread through the Middle-East. It was also noted that Taiwan had experienced an outbreak of serotype O, after having no outbreak for a number of years.

WRL currently has a project in Malaysia, with the objective of understanding the lineages of FMD circulating in South-East Asia and, particularly focusing on the molecular epidemiology of FMD in Malaysia. It is intended that information will be determined down to the level of the transmission pathway.

Dr Hammond then presented information on an outbreak of serotype A-Iran 05 in Basra, Iraq. Samples of the suspected infected animals were sent by the US and UK Military to the WRL in Pirbright. Serotype A-Iran-05 is now widespread throughout the country, and a large scale vaccination programme has been launched. In Iraq, animals were previously vaccinated only against serotype O. Following diagnosis at Pirbright, the vaccine has now been changed to protect against the current serotype A strain.

Further details of this presentation are provided in Appendix 07.

Discussion

Key issues raised in discussion included:

- The need for increased numbers of samples to be submitted to WRL from SEAFMD member countries.
- That anecdotal field observation suggests that the A22 vaccine may not protect animals against A-Iran-05, and that the R values are very low. It was also raised that the serotype A strain circulating in Vietnam was not well matched to A22 and that the vaccine had been changed. The need to remain vigilant in detecting new serotypes and subtypes that may not be well matched to vaccine strains was raised.
- Pan-Asia 2 continues to occur. One of the major issues is that the vaccine strain O Manisa does not protect against Pan Asia 2 as well as against Pan-Asia. It was emphasised that there is a need to continue to closely monitor the occurrence of Pan-Asia 2.
- Dr Gaston Funes, OIE, raised an issue that serotype C had been reported through WAHIS from Africa. He asked whether WRL were able to confirm the occurrence of serotype C in Africa (Senegal and Kenya). WRL had not received any information on the occurrence of serotype C and would follow up on this information.
4. THE SEAFMD CAMPAIGN PROGRESS REPORT

i) Achievements against 2008-2009 work plan and strategic directions for 2009-2010

Dr Ronello Abila reported on the progress of each of the eight components of the SEAFMD Campaign in 2008/2009, since the 14th Sub-Commission meeting in March 2008. These components include:

1) International coordination;
2) Programme management, resources and funding;
3) Public awareness and training;
4) Policy and legislation;
5) Disease surveillance, diagnosis, reporting and control;
6) Research and technology transfer;
7) Livestock sector development; and
8) Monitoring and evaluation.

These form the framework against which member country representatives will report progress and planned activities in their country.

Some key issues described by Dr Abila, included: that SEAFMD are now working closely with PR China and look forward to working increasingly with other neighbouring countries such as India and Bangladesh; that the AusAID funding has been approved for the SEAFMD Campaign until 2011; and that almost all member countries have started to adopt the 2020 strategy into their national plans.

Some of the key areas of progress and key activities against the eight SEAFMD Components included: achievement by RRL to be recognised as an OIE Reference Laboratory; continued development and uptake of the ARAHIS/WAHIS Regional Core; outbreak investigation training and revision of the outbreak investigation and management field manual; private sector engagement including the trader meeting held recently in Thailand; and further development of the research gap analysis conducted by SEAFMD with support of Australian Biosecurity Cooperative Research Centre (AB-CRC).

Dr Abila presented the strategic directions for 2009/2010. He emphasised the importance of really starting to control outbreaks in the specified zones identified by SEAFMD members during this current consolidation phase of the Campaign, stating that this is essential before the campaign can move on to the expansion phase.

Finally, Dr Abila presented the ‘STOP’ concept, an acronym developed to capture the elements required for a successful eradication Campaign: Superior Strategy, Technical capacity, Operational machinery and Political support. Dr Abila noted the importance of detecting the incubating animal, to the success of controlling FMD in South-East Asia. He noted the need to increase the number and quality of outbreak investigations being conducted in South-East Asia and the importance of continuing to increase reporting of outbreaks. Further details of the ‘STOP’ concept are provided in Appendix III and Appendix 08.

Over the next two years, there is an aim to further develop outbreak investigations and achieve more in depth investigations of outbreaks; more field engagement of traders; more market chain work; support the bilateral project for FMD control in Cambodia, Vietnam, Laos and Myanmar and; to continue to lobby political support for the SEAFMD Campaign.

ii) Analyses of FMD outbreaks in South-East Asia in 2008

Dr Abila introduced Dr Alexandre Bouchot, seconded to OIE from the French Foreign Service. Dr Bouchot presented analyses of FMD outbreaks in South-East Asia. He began by presenting information on the obligations of member countries to report to the OIE, and also the requirement to report to ARAHIS/WAHIS Regional Core. He encouraged members to report outbreaks to ARAHIS immediately upon receiving reports from the field. He noted the importance of reporting all outbreaks of FMD and that member countries should follow the outbreak definition of SEAFMD when reporting outbreaks. Dr Bouchot also recommended that more samples be submitted to the national laboratories and to the Regional Reference Laboratory.

It was noted that serotype O continued to be the dominant serotype submitted to laboratories during 2008. Dr Bouchot presented the distribution of FMD outbreaks during 2008, some key points included: geographical clustering of outbreaks; marked reduction of outbreaks of serotype A in Vietnam in 2008 as compared to 2006 and 2007; no reported outbreaks of Asia 1 in 2008; continued outbreaks in the MTM Zones of Thailand and Malaysia with a relative increase in northern part of Peninsular Malaysia. However, Dr Bouchot noted that during 2008 there had not been any major
epidemiological events for FMD in South-East Asia (emergence of new strains, increase number of outbreaks, or changes in mortality or morbidity).

Some information was provided on seasonal variation of outbreaks, noting that in Myanmar and Cambodia, the number of outbreaks increase during the rainy season, whereas in Thailand and Malaysia, the increased outbreaks corresponds with periods of increased animal movements in November to February, linked to the religious festival period.

In terms of future direction, Dr Bouchot emphasised the need for continued improvement of reports to ARAHIS/WAHIS Regional Core; early reporting into regional and national systems; harmonisation using outbreak definition. Further details from this presentation are provided in Appendix 09.

5. MEMBER COUNTRY FMD STATUS REPORT

Cambodia

Dr Sorn San presented the status report for Cambodia, starting with a summary of Outbreaks from 2004 to 2008. FMD outbreak distribution in 2008 showed peaks early and late in the year, with the greatest number of outbreaks in February.

Dr Sorn San described the FAO/OIE training course on outbreak investigation held in Cambodia in 2007, along with other training activities, the details of which are provided in Appendix 10. Surveillance and reporting activities were described, with particular emphasis on a reporting system using a ‘Hotline’ to NaVRI. Dr Sorn San described the first bilateral meeting between Cambodia and Vietnam that was held in December 2008 to set up a Quarantine Station and checkpoint between Cambodia and Vietnam.

The public awareness and communication activities in Cambodia were described, which included: development of public awareness materials with inclusion of the mascot ‘Super Cow’; a calendar to be distributed to farmers and other stakeholders which includes information on when animals should be vaccinated against various diseases.

The main constraints to controlling FMD in Cambodia included: not enough FMD vaccine; illegal cross-border animal movement; no official recognition of border entry points; lack of livestock production and veterinary law; late reporting from an outbreak area (therefore the Veterinary Authority are encouraging use of a hotline to report disease); lack of farmer cooperation; and lack of human resources.

Dr Sorn San thanked the SEAFMD Campaign for the donation of 10,000 doses trivalent FMD vaccines that Cambodia received in early January this year.

Future priorities include: to continue training in outbreak investigation in other parts of the country; to increase diagnostic capacity; to increase vaccine for the vaccine bank for use in the event of an outbreak, and to enable routine vaccination to be conducted along border (high risk) areas. It was also presented that under the National Information System they would like to train Village Animal Health Workers in the recognition of important diseases. Further information on this presentation is provided in Appendix IV and Appendix 10.

Discussion

- There was some difficulty in sending samples to RRL. Some samples hand carried to RRL revealed that recent outbreaks were caused by serotype O. It was also noted that there was a problem when entering reports into the ARAHIS/WAHIS system, which resulted when the person inputting the data failed to click on the button to submit the data. Dr Wilai confirmed that most outbreaks in Cambodia have been caused by serotype O, however, there was one sample in 2008 which was positive for serotype A.

Indonesia

Dr Agus Wiyono presented the country status report for Indonesia. He presented that Indonesia declared its freedom from FMD in 1986 and it was recognized by OIE in 1990. Activities now in Indonesia are focused on maintaining free status for FMD and include: surveillance, emergency preparedness and public awareness. There is a new act in the final stages of approval, which will replace the existing Act no. 6 (1967) regarding Animal Husbandry and Animal Health. The progress of Indonesia against the eight SEAFMD components was presented, the details of which are provided in Appendix V and Appendix 11.

Dr Agus noted that the outbreak of rabies that has recently occurred in Bali has demonstrated a need for improved preparedness, not just for rabies but for other diseases, such as FMD. An example of how preparedness might be improved for FMD is by running of simulation exercises. It was also described how the INDOVETPLAN for FMD
needed to be revised and updated, and that similar plans needed to be developed for other diseases. Dr Agus also noted the need to strengthen border and movement controls in order to manage the risk of incursions of FMD more effectively.

Discussion
- A point was raised regarding whether there is any information on illegal imports of meat into Indonesia and whether this is considered a problem. Dr Agus noted that there are possible entry points for meat and other animal products into Indonesia and that better testing of samples is needed in those border areas.
- It was asked how Indonesia intends to further develop emergency preparedness and update the INDOVETPLAN. Dr Agus stated that simulation exercises would be conducted. He described a previous meeting run by ASEAN and agreement by ACIAR to sponsor development of INDOVETPLAN for other diseases and adaptation of existing plans for FMD and Rabies.

Laos
Dr Phouth Inthavong presented the country status report for Laos. He began by describing the occurrence of FMD outbreaks during 2008: 41 outbreaks were reported in four provinces during 2008. All outbreaks were caused by serotype O. The distribution of the outbreaks was demonstrated on a map, indicating the most outbreaks occurred in provinces bordering neighbouring countries (see Appendix VI and Appendix 12). Temporal distribution of outbreaks were presented, showing that the highest number of outbreaks was reported in January, relatively low number of outbreaks from February to October, and then an increase again in November and December.

One outbreak was described in which FMD was identified in a group of pigs at a slaughterhouse, but when they traced back to the farm of origin, there was no sign of FMD. It was suspected that the pigs had been infected during transit to the slaughterhouse. The control measures used in Laos were described and included: restriction of animal movement during an outbreak; restriction of slaughtering animals and selling meat during an outbreak; ring vaccination; treatment of sick animals; and public awareness. Dr Phouth described an activity to improve FMD control in the Southern Zone: the Lao-Thai cooperation on strengthening animal disease laboratory in Pakse. This involved a visit by Thai experts to the laboratory to train staff in FMD diagnosis.

Factors that contribute to FMD outbreaks in Laos were described. Some of the constraints to controlling FMD were identified: lack of resources; limited disease surveillance and reporting system; and limited knowledge of farmers on FMD.

Dr Phouth concluded by describing the future plans for FMD control in Laos, which include: review national strategic plan for FMD in line with the SEAFMD roadmap 2020; training of provincial and district staff, including refresher training; conduct public awareness; further develop animal movement controls; continue to look for ways to source FMD vaccine; and continue to share information with international organisations and neighbouring countries.

Discussion
- A representative from JICA asked if Laos has in-country checkpoints. Dr Phouth replied that they have in-country checkpoints in every province, which check all traffic that passes along the road on which they are located.
- The species most affected by FMD in Laos was raised, and it was noted that most outbreaks are seen to affect cattle at this time, and that there are very few cases where pigs are affected.

Malaysia
Dr Naheed Mohd bin Mohd Hussein presented the country status report for Malaysia. He described how the number of outbreaks reported in Peninsular Malaysia had gradually increased from 2005 to 2008, with 2008 showing the highest number at 146 outbreaks. The recent increase in outbreaks reported was attributed to increase reporting as a result of the ‘Sampai’ programme of emergency reporting through mobile phone (SMS) messaging.

The spatial distribution of outbreaks was described, noting the recent change in distribution. The state of Kelantan, bordering southern provinces of Thailand, has previously reported the highest number of outbreaks. However, it is now down to the 4th highest number with the state of Terranganu showing the highest number of outbreaks. Dr Naheed described how, in 2008, Australian cattle became very expensive and Malaysia had to reduce their imports of these cattle. However, the demand for animal products remained and more cattle were thus sourced from Thailand. In order to cope with this change in supply, Malaysia formulated a new strategy for FMD control. This strategy will look at how to facilitate movement of livestock into Malaysia, while maintaining regulation of the movements. They intend to do this by making the protocol easy to follow for traders, thus reducing those animals that are moved through unofficial routes.
Part of this is to allow traders to build and operate their own quarantine stations. The new strategy was started in May/June, 2008. The numbers of livestock imported through official vs. unofficial routes has improved considerably as a result of this programme. When private quarantine stations were allowed, there were less outbreaks in the Kelantan area, but there was still a problem with smaller smugglers who did not build their own quarantine stations. Some of these pass animals over the border into the next state, which is why we see clusters of outbreaks on some state, such as Terranganu. Other clusters are seen further south, where there is a high demand for livestock and so many animals move into that area.

The temporal distribution of outbreaks was also examined, noting that the pattern of outbreaks in 2008 was different to the usual pattern observed in Malaysia. It is usual to see peaks of FMD at the beginning and end of each year due to increased animal movements at the time of the Muslim festivals, with a reduced number of outbreaks in the middle of the year. However, in 2008, no such reduction was seen in the middle of the year, and the number of outbreaks continued to fall in the second half of the year (see Appendix VII and Appendix 13 for more details).

It was also described that Malaysia is striving for increased self sufficiency in livestock and livestock products, thus further necessitating the need to import livestock for breeding purposes.

**Myanmar**

Dr Kyaw Sun presented the FMD country status report for Malaysia. The occurrence of FMD outbreaks in Myanmar during 2008 was presented, showing that serotype O continues to be the major serotype found to occur in Myanmar. The spatial distribution of outbreaks showed an increased number of outbreaks in Central Myanmar. Dr Kyaw Sun noted the very high population of cattle and buffalo in this area of the country. He went on to present the various zoning activities being undertaken in Myanmar, including the Sagaing, or Central Myanmar Zone, that is considered of high strategic importance given the high populations of cattle and buffalo in the area (see Appendix VIII and Appendix 14).

**Philippines**

Dr Victor Atienza presented the FMD country status report for the Philippines. Dr Atienza presented the progressive eradication of FMD in the Philippines using progressive zoning approaches. He noted that the Philippines were very proud to have strong collaboration with industry, local government and other relevant groups in FMD surveillance and control and went on to explain the strategy used for the eradication of FMD. The strategy involved arresting the disease situation in a given area, and then implementing measures to maintain the disease free status in this area using movement controls and disinfection. The zone status would then be progressed. An important part of the strategy was to identify the critical pathways from the farm through to the slaughterhouse, and implement suitable intervention measures within the critical pathways. Another strategy being used is animal identification and movement control. Colour-coded movement permits allow the slaughterhouse to know the origin of the animal easily from the colour of the form. Before any animal can be transported it must have a shipping permit. It was described that any animal shipped illegally and found to have FMD would be condemned and destroyed without compensation. This measure was only implemented on the later part of the eradication campaign. Further details of the FMD eradication strategy are provided in Appendix IX and Appendix 15.

Dr Atienza then showed a map demonstrating the areas where vaccine is still being used, and those areas from which vaccine has been withdrawn. He described how the level of vaccination has been progressively reduced throughout the country. At the present time, FMD vaccine is only being used in Region 3 and Region 4 on the mainland of Luzon.

Dr Atienza explained to the participants that it has now been 38 months since FMD has been reported in the Philippines and that the level of vaccination is being progressively reduced. Results were shown of a study on swill-feeding, showing a significant reduction in raisers feeding swill to their pigs.

Finally, Dr Atienza stated that he remained hopeful that Philippines would be declared FMD free for the entire country in 2010, and that they are currently preparing their new application to the OIE.

**Discussion**

- Professor John Edwards congratulated the Philippines on achieving freedom from the Pig Adapted Strain of FMD and also for maintaining freedom from other strains. He asked that, given introduction of other pig diseases in the Philippines in recent times, does this raise concerns about FMD being introduced. Dr Atienza replied that they are well aware of this risk.

- There followed a lengthy discussion on the progress and outcome of the Philippines application to OIE for recognition of FMD freedom with vaccination. Dr Rieldrin Morales explained how the negative response of the OIE Ad Hoc Group on FMD to the application made by the Philippines raised concerns regarding the concept of progressive zoning, a strategy also used by the SEAFMD Campaign. In 2008, the application was made for recognition of FMD freedom with vaccination for the entire island of Luzon. It was noted that within
the island, there are areas or zones nationally recognised as FMD free with vaccination and FMD free without vaccination. In early 2009, the Philippines applied again, taking into consideration the comments of the OIE Ad Hoc Group on FMD, to apply northern and southern part of Luzon as FMD without vaccination and mid-Luzon as FMD with vaccination. Dr Morales explained that the bases for this zones application are based in the vaccination status and the geographic boundaries to separate the zones and to control animal movement between zones. Dr Morales also explained that within the vaccination zones there are a lot of animals that are not being vaccinated, but the boundaries of these areas can’t be protected and so the zone boundaries remain based on geographical borders rather than the vaccination status.

- It was then stated that the concern of the OIE Ad Hoc Group was the mixing of vaccinated and un-vaccinated animals in a single zone – the mid-Luzon being applied as FMD free with vaccination. Dr Morales noted that the OIE Ad Hoc Group interpretation of the OIE Code is that 80% of the FMD susceptible animals should be vaccinated in the zone being applied as FMD free zone with vaccination. The Philippines found this interpretation of the Code as going backward rather than progressing.

- Dr Gardner Murray noted that zoning is subject to different interpretations, and that there is a need to have a clear interpretation of the goal of zoning and also how progressive zoning is really implemented by OIE and SEAFMD. Dr Murray Agreed to take this matter up with OIE and make any recommendations to the OIE. What is being mentioned in the chapter of the code is that there should be at least 80% vaccine coverage of the population, but it was noted that this is not possible in many situations. Dr Murray noted the importance of SEAFMD member countries taking a role in recommending amendments to the OIE code and standard setting procedures.

**Thailand**

Dr Wacharapon Chotyaputta presented the FMD country status report for Thailand. He started by describing the number of outbreaks in recent years, showing that in 2008 the number of reported outbreaks had increased. There was an increase in the south of Thailand, believed to be due to movement of more animals to the south during the period of the Muslim Festivals. So far this year, there have been a number of outbreaks throughout the country, with the highest number occurring in the north. In 2008, most outbreaks were caused by serotype O, with occurrence of some outbreaks of serotype A.

Dr Wacharapon went on to described some new control measures that have been adopted during 2008 including knowledge transfer to farmers and continued development of the National Identification and Registration System (NID). See Appendix X and Appendix 16 for more details.

The presentation concluded by highlighting some of the activities planned for 2009/2010, including: FMD serological surveillance, particularly in Region 2; NID will soon enter the next phase for provinces along the border of neighbouring countries; increased focus on livestock market and use of the E-Service system as a tool for animal movement control.

**Discussion**

- A question was raised as to whether there is any sequence information from the serotype A outbreaks occurring in Thailand. Dr Wilai responded to the question stating that there had been a case of serotype A early in 2009, but that it had not been sequenced. However, Dr Wilai believes that serotype A viruses occurring in the sub-region have not changed.

**Vietnam**

Dr Hoang Van Nam presented the FMD country status report for Vietnam. Dr Van Nam first presented a description of the FMD outbreaks during 2008 showing that the outbreaks were more clustered towards the northern parts of Vietnam and the northern part of central Vietnam. He noted that already in 2009, the number of outbreaks to have occurred is relatively high. He then described the distribution of serotypes over the past few years: in 2007, most outbreaks were caused by serotype O, but there were two outbreaks of serotype Asia 1; in 2008 most again were caused by serotype O, but with two outbreaks of serotype A; and finally in 2009, so far all outbreaks had been caused by serotype O.

The factors contributing to outbreaks of FMD in Vietnam were described and included: poor compliance of farmers with vaccination; ineffective animal movement management; and poor border controls. Further details of this presentation are provided in Appendix XI and Appendix 17.

**Discussion**

- A question was raised regarding the vaccination strategy used in Vietnam and whether there is a difference in the clinical signs observed in cattle as compared to buffalo. Dr Van Nam replied that clinical signs were
similar in cattle and buffalo, as observed in Vietnam, and that a strategy of ring vaccination is used to control outbreaks.

6. OTHER REPORTS AND UPDATE ON THE FMD SITUATION IN OTHER COUNTRIES

Australia

Dr Gardner Murray presented a report from Australia. Dr Murray stated that: following the equine influenza outbreaks of 2007, a major review (the Beale Review) was undertaken and its findings were presented to Government. The Australian government accepted, in principle, the recommendations made by the review. Implementation of these recommendations is currently being progressed and includes combining bio-security activities in the Department of Agriculture, Forestry and Fisheries into a semi-statutory form of organisation and gradually implementing this over the next year. Following a strong and coordinated emergency response to the EI outbreak, Australia has declared itself free of the disease in accordance with the requirements of the OIE Code.

Australian Government and industry are undertaking major studies into surveillance and laboratory strategies with a view to making recommendations to support Australia’s public and industry needs and to support production, trade and environmental activities.

Dr Murray noted that Australia plans to hold a major international FMD Symposium in Australia during April 2010.

New Zealand

Dr Derek Belton, from the Ministry of Agriculture, Forestry and Fisheries of New Zealand, discussed the opportunities in the Sanitary and Phyto-Sanitary (SPS) Chapter of AANZFTA. He said the objectives were to: facilitate trade among parties while protecting human, animal or plant life or health in the territory of each party; provide greater transparency in, and understanding of, each Party’s regulations and procedures relating to SPS measures; strengthen co-operation among the competent authorities of the Parties which are responsible for matters covered by this chapter; and enhance practical implementation of the principles and disciplines contained within the SPS Agreement.

The cooperation (Article 8) in the agreement notes that each Party shall explore opportunities for further co-operation, collaboration and information exchange with the other Parties on SPS matters of mutual interest consistent with the objectives of this Chapter. In relation to Paragraph 1, each Party shall endeavour to co-ordinate with regional or multilateral work programmes with the objective of avoiding unnecessary duplication and to maximise the benefits from the application of resources. Each Party agrees to further explore how it can strengthen co-operation on the provision of technical assistance especially in relation to trade facilitation. Any two parties may, by mutual agreement, co-operate on adaptation to regional conditions in accordance with the SPS Agreement and relevant international standards, guidelines and recommendations, in order to facilitate trade between the Parties.

Article 10 – which deals with the meetings among the parties on SPS Matters notes that the Parties hereby establish a Sub-Committee on SPS Matters consisting of representatives from the relevant government agencies of each Party. This Sub-Committee shall meet within one year of the entry into force of this Agreement and thereafter as mutually agreed by the Parties. The SPS Sub-Committee shall review the progress made by the Parties in implementing their commitments under this Chapter and may set up subsidiary working groups, as agreed between or among the relevant Parties, to consider specified issues relating to this Chapter.

The opportunities from all this can translate SEAFMD successes into trading opportunities across AANZFTA membership – e.g. trading conditions from FMD free zones could be specifically recognised within the AANZFTA Agreement. Also funding of specific projects within the SEAFMD programme could be sought through the Co-operation article. There is a potential for higher and broader engagement of AANZFTA member government agencies in specific parts of the SEAFMD programme through establishment of subsidiary working group(s) of the SPS Sub-Committee.

Dr Belton concluded that if we are to do anything, we should probably aim to be on the agenda of the first meeting of the SPS Subcommittee. For further details see Appendix 18.
OIE Asia Pacific

Dr Itsuo Shimohira, Deputy OIE Regional Representative for Asia and the Pacific, noted the major activities of the Representation, including:
- improvement of animal health information systems and communication;
- prevention and control of emerging/trans-boundary animal diseases;
- prevention and control of HPAI;
- standardization of veterinary medicinal products;
- prevention and control of aquatic animal diseases;
- support for WTO-SPS Agreement including risk analysis;
- support for control of FMD; and
- prevention and control of BSE and other TSEs.

Dr Shimohira discussed the various meetings and activities concerning FMD over the past 12 months. The details of these are provided in Appendix 19.

Discussion
- Dr Loganathan from DVS Malaysia requested similar training activities be conducted relating to wildlife and reporting mechanisms. In response, Dr Funes, OIE, stated that OIE Headquarters are in the process of updating all focal points and one of the first to be updated is the one concerning wildlife. Once this has been completed, a training seminar will be held.

FAO

Dr Carolyn Benigno from FAO RAP reported on the activities of FAO relating to FMD Control in South-East Asia. One of the major activities presented was the Vaccine Supply Mechanism under which a Working Group was formed to explore the feasibility of establishing an FMD Vaccine/Antigen Bank. The working group recognized that the cost to establish the minimum dose requirement was beyond what most countries could afford. Therefore, it was decided to develop a stand-by availability of vaccines for use during emergencies. It was explained that APHCA will pursue negotiations with private vaccine companies for a standby vaccine supply (as distinct to a vaccine bank). Further details of this are provided in Appendix 20.

Other activities have included:
- supporting a study on the role of the carrier state of the Asian Swamp Buffalo in the transmission and maintenance of FMD in South-East Asia;
- implementation of a study on the role of vaccination in the control of FMD in the Mekong Region;
- establishment of a Disease Assistance Fund which will be available for APHCA member countries (Indonesia, Laos, Malaysia, Myanmar, Philippines, and Thailand) in the event of disease emergencies up to a maximum of USD 5,000 at a time.

Dr Benigno also noted that the FAO-ADB Project: Transboundary Animal Disease (TAD) Control for poverty reduction in the Greater Mekong Sub-Region, Phase 2, will start in May 2009 and will continue for 30 months. The key components include pilot disease control sites in Upper Mekong and Lower Mekong Zones, with associated training programmes and studies of the impact of disease control interventions.

CSIRO Australian Animal Health Laboratory (AAHL)

Dr Chris Morrissy presented a progress report from AAHL. He stated that AAHL has an ongoing commitment to working in the region as part of its responsibility as an OIE Collaborating Centre for Laboratory Capacity Building. Dr Morrissy explained that AAHL has a large number of projects operating in the region related to capacity building with the major TADs, including FMD. The objectives of AAHL’s projects are to improve disease diagnosis in the region as well as at AAHL.

It was described that AAHL has a number of collaborations in the region, having had long term collaboration with RRL, Pakchong in Thailand and there is currently a project in collaboration with USDA. On behalf of AAHL, Dr Morrissy congratulated RRL on becoming a OIE reference laboratory for FMD. The CARD project in Vietnam was described, under which AAHL has been working with the DAH in improving FMD control and diagnostics. The CARD project involves molecular epidemiology and serological surveillance to determine the prevalence of disease and the effectiveness of vaccination.
Other activities of AAHL in the sub-region were described:
- an ongoing project with ACIAR in supporting the laboratory in Laos on FMD and improving diagnostics for a range of diseases;
- an OIE project as part of PSVS to improve quality assurance of diagnostics in all the countries in the sub-region;
- 5-year project based in South-East Asia, South America and South Africa, looking at effectiveness of FMD vaccines, pathogenesis of FMD and persistence of the virus after vaccination in sheep, cattle and pigs. This project will also serve to improve and validate FMD diagnostics at AAHL.

Dr Morrissy explained that AAHL has made a significant investment in the construction of a new high-throughput laboratory ($5.1 million) so it can be prepared for a disease outbreak, especially after the experience of FMD outbreaks in the United Kingdom. Dr Morrissy concluded that equipment for robotics and new LIMS software for high-throughput of $2 million means AAHL is now well prepared to deal with a major disease outbreak. Further details of this presentation are provided in Appendix 21.

**European Commission**

On behalf of the European Commission, Dr Alain Vandersmissen summarized the major achievements during 2008. He indicated that the regional programme line for Asia, ‘Cross-Border Cooperation in Animal and Human Health’ (48 million euros) was now almost fully committed, less than two years after the strategic concept of this line had been proposed. He thanked OIE members and partners who have contributed to this, among others, by assisting in the preparation of the regional programme on ‘highly pathogenic emerging and re-emerging diseases in Asia’ that closely involves ASEAN and SAARC. He indicated that this programme was offering a new opportunity to develop further the already privileged relations that the European Commission has with OIE, ASEAN and FAO; and that since the Asia programme would be channeled through the World Animal Health and Welfare Fund of the OIE, like the Africa one already signed last December, the Commission was becoming a major financial contributor to this fund.

Dr Vandersmissen introduced briefly the New Animal Health Strategy of the European Union and, on the external front, reminded the involvement of the Commission in the preparation and implementation of the avian influenza ministerial conference of Sharm-El-Sheikh in October 2008. The presentation made by the Commission on that occasion intends to pave the way for a deeper European involvement in ‘One Health’ in the years to come. Finally the speaker announced that in June 2008 an original study on the “Gender aspects of the avian influenza crisis in Asia” (available on the Commission Avian Influenza coordination website) had been produced and that two evaluations were being launched: one mid-term review of the Avian and Human Influenza Facility and an outcome-cum-impact evaluation of the global response against avian influenza, involving a sample of Asian countries.

Dr Vandersmissen concluded that the promises made by the Commission in the successive avian influenza international conferences and all the initiatives previously committed with OIE Members, had been made effective. Further details of this presentation are provided in Appendix 22.

**People’s Republic of China – Ministry of Agriculture**

Dr Hong Yin, from the National FMD Reference Laboratory, Lanzhou Veterinary Research Institute of CAAS, presented the situation of FMD in China. He stated that China has no reported outbreak of FMD serotype O since 1999. In 2008, there were 3 outbreaks of FMD serotype Asia 1 in three provinces in the northwestern part of China (Xinjiang, Gansu and Ningxia). He noted that the situation of FMD serotype Asia 1 has been improving in recent years, with a reduction in the number of outbreaks, and the extent of the outbreaks. On 13 January 2009, FMD serotype A was reported at Wuhan, Hubei province. Twenty days later, another outbreak of FMD serotype A was reported at Wusi, Fenxian, Shanghai. He explained that in total, 99 dairy cattle were infected of which 5 died. In response to this outbreak 10,298 diary cattle were destroyed. The outbreaks were controlled there was no further spread.

Dr Hong Yin explained that preliminary studies by the National FMD Reference Laboratory suggested: that the two outbreaks of FMD serotype A were caused by one strain; that this strain was a new one to China; and that it was closely related to the strain prevalent in South-East Asia. He also noted that it had mainly affected (black and white) dairy cattle. Laboratory tests showed that cattle could be infected by inoculation with the virus, and that sheep and swine did not show clinical signs following contact with the inoculated cattle. Further details of this presentation are provided in Appendix 23.
**Japan – MAFF**

Dr Toshiro Kawashima presented the report for Japan Ministry of Agriculture, Forestry and Fisheries. Dr Kawashima described the outbreaks of FMD in Japan during the 2000, including details of the surveillance conducted after the outbreak and the epidemiological investigation of the outbreak. It was explained that the most probable source of the virus was imported wheat straw that was used as animal feed. He explained how, in response to this identified risk, the import regulation was strengthened to include obligatory heat processing of straw imported from infected countries. Information was also provided on the FMD vaccine stock held by Japan. Serotypes O, A and Asia 1 are held (100,000 doses of each). Further details of this presentation are provided in Appendix 24.

**JICA**

Dr Shigeo Nishino presented a report on JICA’s Animal Disease Control Project in Thailand and neighbouring countries, Phase 2. The project activity aims to strengthen disease surveillance techniques, as well as to improve disease information systems from pilot areas to the national offices of the veterinary services. The project will also assist in strengthening diseases diagnoses at the field level in the five member countries: Thailand as the lead country; members are Cambodia, Laos, Myanmar, Malaysia and Vietnam. Further details of this presentation are provided in Appendix 25.

**Murdoch University**

Professor John Edwards presented a report for Murdoch University, Perth, Western Australia, focusing specifically on research being conducted at Murdoch University and on relevant activities and progress of the Australian Biosecurity Cooperative Research Centre (AB-CRC). Professor Edwards emphasised the strong collaboration between Murdoch University and other organisations and thanked the following for their collaboration: OIE, Regional Reference Laboratory (RRL), World Reference Laboratory (WRL), Australian Animal Health Laboratory (AAHL), FAO, ACIAR, AusAID, DAFWA, AB-CRC. The different research projects relevant to the SEAFMD Campaign were presented, indicating where PhD research projects are located and how they provide support to the SEAFMD Progressive Zoning approach. Professor Edwards noted the importance of the Central Myanmar area to the success of controlling FMD in South-East Asia. He noted the extensive research conducted by Dr Kyaw Naing Oo in this area. Professor Edwards noted the support of Myanmar and Laos in enabling Dr Blesilda Verin to collect samples from 400 buffalo, and her plan to follow up on this. Other relevant PhD projects were described, including those of Elaine Llarena and Jim Caro on risk and crisis communications, both of which are highly relevant to FMD in the sub-region.

It was explained that the Australian Biosecurity Cooperative Research Centre (AB-CRC) have provided most of the scholarships for the students mentioned and have provided a lot of support to this research. Professor Edwards explained that the AB-CRC are putting in a re-bid this year and that one of the signature projects would be to support SEAFMD Campaign. AB-CRC are also looking to increase the number of postgraduate students working on FMD and are conscious of the need for social research as well as technical research. A review has shown that the impact post graduate students are having on regional projects is substantial. AB-CRC realised the need to work in advance of new and emerging infectious diseases, including new and re-emerging strains of FMD and have organised a Biosecurity Risk Intelligence Scanning Committee (BRISC) as part of their aim to address new and emerging diseases at source. Further details of this presentation are provided in Appendix 26.

**Republic of Korea**

Dr Sang-Jin, Lee presented a report of the status of FMD in the Republic of Korea. There have been two outbreaks of FMD, the first was in 2000 and the second in 2002. In both cases, the outbreaks were controlled within 40 days. In 2000, the outbreaks affected cattle. Control measures were implemented and all susceptible animals within a 10-km radius of the infected farm were vaccinated and later destroyed, in order to aim to meet regulations of the OIE recognition of freedom. An epidemiological investigation into the source of the virus found three possible sources, including: importation of hay, foreign workers in farms, and travellers to overseas.

In 2002, the outbreak mainly affected pigs. During this outbreak, no vaccination was used, but only stamping out of all susceptible animals and other animals that could transmit virus mechanically. The cost of vaccination was considered high when used during the 2000 outbreaks. After the outbreak, intensive surveillance was conducted across the whole country. Measures have been taken to reduce the risk of importing FMD from neighbouring countries by employing measures such as treatment of imported hay.

The Republic of Korea has now been free of FMD since 2002. High quarantine measures and intensive surveillance have been implemented in order to maintain freedom from FMD.
**Chinese Taipei**

Dr Huang Lin Kao presented a report from Chinese Taipei. He stated that Chinese Taipei had been recognized by OIE as an FMD free country with vaccination since 2003, after six years’ effort for controlling the disease that was first identified in pigs in 1997. Through implementation of a rigorous vaccination programme and control measures, no outbreaks of FMD had occurred from 2001 until February 2009.

At the beginning of February this year, 31 FMD cases have been found in non-vaccinated sentinel pigs at two farms in central Chinese Taipei. The contingency procedures were initiated immediately, including destroying infected animals, quarantine of infected farms, vaccination in response to the outbreaks, disinfection of infected premises, etc. A 3-km-radius area of each index farm was set up for the purpose of surveillance.

The report from the national diagnostic laboratory for FMD in the Animal Health Research Institute of Chinese Taipei confirmed that both outbreaks had been caused by FMD virus serotype O and that the serotype of virus was, by the way of nucleotide sequencing, identified as the same as that of the first outbreak in 1997, serotype O Cathay topotype.

It was described that Chinese Taipei launched a programme in April 2007 to gradually stop giving pigs vaccination against FMD. Initially, the non-vaccinated pigs act as sentinel animals. The proportion of non-vaccinated pigs increased from 10% in 2007 to over 90% as of the end of 2008.

Dr Huang Lin Kao concluded that it is inevitable to find a trace of residual infection at a very last stage of an eradication programme. The preliminary results from the rigorous surveillance activities indicate, as we anticipated, that the infections have been eliminated before spreading by our swift actions and no further infection has been found. The consumers’ confidence on pork is not affected by this incidence.

7. **DISEASE SURVEILLANCE, DIAGNOSIS, REPORTING AND CONTROL (SEAFMD Component 4)**

i) **Country Reports**

No comments from member countries.

ii) **SEAFMD Information Systems**

Dr Ronello Abila gave a short presentation of the reporting system used in the SEAFMD Campaign. First he noted that any major FMD related epidemiological event (occurrence or re-occurrence of a new strain; sudden and unexpected increase in morbidity or mortality; evidence of a change in the epidemiology [e.g. host range, pathogenicity]) requires an immediate notification to OIE through WAHIS. For the other events which are endemic outbreaks a reporting system was set up in 1999, at the very beginning of the programme, acknowledging that information on outbreaks occurring is the basis of any action. The reporting system first implemented was based on monthly paper reports, a system which continued until last year. Dr Abila explained that the SEAFMD website had also existed since 2002 but presented limitations, including: the size of the map, and limited capacity to manipulate the presentations in the tables.

In 2005, OIE developed an online reporting system which required countries to submit immediate notification reports to OIE on line: the WAHIS system. However, in order to cover all the data and capture outbreaks in a regional endemic situation, it was necessary to develop a WAHIS regional core. ARAHIS is the first WAHIS regional core for ASEAN countries. A link has been established to allow data submitted to ARAHIS to be automatically displayed to SEAFMD website, allowing greater manipulation (zoom, display of different serotypes, etc.). Countries can also submit their six-monthly report to OIE using the information they have submitted to ARAHIS by first capturing the data in ARAHIS on a daily basis, and secondly by ticking in the box allowing the data to be made public.

Dr Abila provided a live demonstration on the web showing how the map works on the SEAFMD website. The current status of reporting was shown to the delegates and member countries were reminded to update the data where it was still lacking, noting particularly those outbreaks reported by individual country status reports, but that is not yet shown in the ARAHIS/WAHIS Regional Core.

Dr Alex Bouchot continued the presentation and noted the importance of using the data we have collected and to know how to export it and analyse it. It was noted that SEAFMD RCU needs to provide information to the member countries so that they can do this themselves. As a means of addressing this need, a SEAFMD EpiNet meeting was held in Manila in February 2009. A small team of participants spent two days analysing the data and the reporting system. At the end
of the meeting, a number of recommendations were made to further improve the current FMD reporting system. Other details of this presentation are provided in Appendix 27.

iii) Progress of FMD Regional Reference Laboratory

Dr Wilai Linchongsubongkoch presented the progress of the FMD Regional Reference Laboratory during 2008. It was described that in 2008 the RRL, Pakchong received samples from South-East Asia member countries as follows: 11 from Laos, 17 from Cambodia, 4 from Myanmar and 79 from Thailand. Dr Wilai stated that the diagnostic result of samples from those countries were serotype O and A. The sequencing results available for 2007 and 2008 indicated that all the serotype O strains belong to the South-East Asia (Mya98) topotype.

The antigenic variation determination (r-value) of FMD field isolate viruses were presented and indicated that the r-value of serotype O was greater than 0.4 with O189/87 (Thai vaccine strain) and for serotype A, r-value greater than 0.4 with A118/87 (Thai vaccine strain). Dr Wilai noted that in 2006 and 2008, mostly serotype O was found among the samples submitted. In 2007, because of the submission of a lot of samples from a big outbreak in Laos, mostly the serotype A was found.

Dr Wilai presented an evaluation of quality of FMD samples submitted to RRL, with the objectives of: reducing the problems affecting diagnostic results; standard setting; improving the transportation procedure in terms of biosafety and biosecurity. The results of this evaluation are provided in Appendix 28.

Dr Wilai explained that RRL took part in the inter-laboratory comparative testing exercise for FMD vaccine matching conducted by the WRL and that, to date, only five laboratories had returned their results. She described that several problems were encountered, including: some samples were not received by participating countries; some additional documents were not returned to RRL along with the results; and that some technical errors had occurred.

It was noted that the OIE Biological Standard Commission has accepted the RRL application as a new OIE Reference Laboratory for FMD. This application will be submitted during the General Session in May 2009 for approval by the International Committee.

Discussion

- Dr Loganathan, Malaysia, stressed the importance of informing the national coordinator of each member country when the samples for inter-laboratory comparison testing are sent to the national laboratories.

- Dr Jef Hammond, WRL, emphasized the fact that very few samples are sent to RRL from the SEAFMD member countries, and furthermore that the data held by member countries on strains of FMD should be provided to the RRL.

- It was noted that very few samples are taken from pigs and Dr Wilai Linchongsubongkoch indicated that this could be due to difficulty of sampling this species.

- Vietnam requested that RRL transfer the technical method for determining the r value to the member countries. This request was supported by Dr Jef Hammond, WRL Pirbright

iv) Progress of outbreak investigation training

Dr Polly Cocks, Murdoch University, presented the progress with Outbreak Investigation Training in South-East Asia. Since the development of the course in 2007, a number of outbreak investigation training courses have been conducted in the sub-region. This training course was developed in 2007 to address a need for improved response to, and investigation of, outbreaks of transboundary animal diseases in South-East Asia and to improve the quality of information coming from the field.

The OIE/FAO training courses were held in Southern and Central Vietnam during September 2007; in Cambodia during November 2007; and in Laos in December 2007. A further series of training courses were run by FAO, with assistance from OIE staff, in Northern Vietnam during June 2008. Minor refinements were made to the course materials during the series of training courses held in Vietnam, Cambodia and Laos according to the response of participants.

Following these initial courses held in 2007 and 2008, Dr Cocks explained that the training module on outbreak investigation was revised further in response to participants’ comments and observations by the trainers of gaps identified in the existing course. Major objectives of the course refinements were: to make the course more practical for implementation by field veterinarians in the South-East Asian context; to expand the existing material by including details on management of outbreaks and emergency control measures; to include a section on basic epidemiology and disease transmission dynamics; and to make the course more interactive with inclusion of more scenario exercises and

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role plays. Further information was also provided on techniques for communicating and gathering information and the importance of using local knowledge, these were included in a new chapter on communications.

The revised training course on outbreak investigation and management was piloted in a joint programme run under SEAFMD RCU, AusAID Sanitary and Phyto-Sanitary Capacity Building Project and Murdoch University in Myanmar during January 2009. The first course was conducted in the MTM Zone of Myanmar in Myeik and included 26 District and Township level veterinarians and veterinary para-professionals from throughout the MTM Zone. The second course was held in Mandalay and included 36 District Level and Township Level Veterinarians from the proposed Control Zone and Buffer Zone of Central Myanmar.

It is intended that the draft revised manual on outbreak investigation and management undergoes peer review prior to printing. Once printed the manual will be made available for reproduction by member countries as required and will be used for further training courses planned throughout the region. Further details of this presentation are provided in Appendix 29.

v) Molecular Epidemiological analyses of FMD strains in South-East Asia

Dr Wilai presented the molecular epidemiological analysis of FMD strains in South-East Asia. The FMD samples submitted to RRL from Myanmar, Cambodia, Laos, Vietnam and Thailand from 2004 to 2008 were used as a basis for a molecular epidemiological study using nucleotide sequencing methods. The results were analyzed using a phylogenetic tree. Dr Wilai stated that the objective of the study was to examine the genomic variation of virus causing outbreaks in the field and also to trace back to the origin or source of virus causing outbreaks in the region.

The phylogenetic tree of serotype O showed that samples from 2004 were of SEA topotype (Mya 98 strain), while the three topotypes: South-East Asia, PanAsia and Cathay were found in 2005 and 2006. Recently only South-East Asia topotype has been found in this region. The phylogenetic tree for serotype A including samples from 2004-2008 indicated only the Asia topotype.

Dr Ronello Abila made then a geographical presentation of the data and stressed that the geographical locations from where samples are collected are not always available. Without this information, he noted that it is not always possible to gain optimal value and information from the samples submitted. He encouraged member countries to submit information on the location of outbreaks and samples when submitting. The full presentation given by Dr Wilai and Dr Abila are provided in Appendix 30.

vi) FMD Risk Pathways in the MTM Zones

Dr Polly Cocks presented a progress report on a study of FMD Risk Pathways in the MTM Zones. She explained that the AusAID SPSCBP Project and Murdoch University, with the support of SEAFMD RCU are conducting a research project on the livestock trade and marketing networks in the MTM Zones of Malaysia, Thailand and Myanmar. This involves going beyond understanding the broad direction of animal movements to looking, at a higher resolution, at the actual individuals and livestock holdings involved in those movements. A major component of this research is identifying the various stakeholders of the livestock trade and marketing industry and the role of those stakeholders within the trading network as a whole.

The objective of this research is to identify the stakeholders involved in the livestock trade and marketing industry, to qualify the risk of FMD transmission through each of the livestock holding areas identified; and to identify key nodes and pathways of livestock movements in terms of their contribution to the risk of transmission of FMD through the trading and movement network. In so doing, it is intended that strategic areas for focusing intervention measures will be identified. It is anticipated that a further advantage of the study will be greater engagement of the private sector involved in livestock trade through identification of, and communication with, previously unknown traders and stakeholders.

Dr Cocks described the study area of the project and the reasons for selecting such an area (see Appendix XII and Appendix 31). She presented the preliminary results of the research, indicating the importance of the livestock markets in the trade pathways in Myanmar and Thailand, with identification of potentially key markets within those networks.

Dr Cocks then described the OIE/FAO-ADB project planned in the Greater Mekong Sub-Region (GMS). This project will consider trade pathways of livestock, with a focus on cross-border movements. Similar approaches will be used to those of SPS Project in the MTM Zones and will focus on key border areas of GMS. The objectives of this study will be to identify the key stakeholders and trading pathways of livestock within the study areas and ultimately to identify focal, high risk areas that represent potential targets for intervention. The project will be managed by SEAFMD and will be implemented within participating countries. Further information on both the studies presented are given in Appendix 29.
Discussion

- The Chairman noted the importance of the market driven approach which was also successfully implemented in the Philippines.

- Dr Prasit Chaitaweesub, Thailand, stressed that changes can occur very quickly in the pattern of animal movements and that the Thailand Department of Livestock Development (DLD) have developed a movement permit system and that it would be necessary to compare the data collected through this system with that of the study.

- Dr Naheed, Malaysia, agreed with Thailand on the dynamic nature of movement pathways and pointed out the agreement between Thailand and Malaysia and the approval by audit of some private quarantine stations. Dr Naheed also explained that when trade is facilitated with a more appropriate legislation, the routes of movement could change.

- Dr Subhash Morzaria, FAO, recognized the very good job that has been done, and acknowledged that the methodology was very useful. He stressed the importance of taking into account the whole market chain of all livestock and the dynamic nature of those market chains, by identifying drivers of the movements. He also stressed that the information on the production systems and on disease outbreaks should be overlaid to better understand the movements.

vii) Managing the risks associated with livestock movement and disease spread in the GMS

Dr Ben Madin made a presentation on his on-going PhD study with Murdoch University. He notably stressed that, as livestock trade is a vital part of the economy in South-East Asia, it is this same trade that is predominantly responsible for the movement of animals infected with FMD, and thus the appearance of disease in otherwise free areas. His project is capturing information on livestock movements in Cambodia and Laos, as well as other information on traders, prices and other potential drivers of this movement.

While it is important to ensure that the trade is sustainable, this invariably conflicts with the need of traders to conduct their business cost effectively. In order to prevent the spread of diseased animals, governments attempt to enforce regulations which ultimately add cost to the livestock trade. These costs may be direct, such as shares, levies or charges, or indirect, such as delays, quarantine periods, animal losses due to handling, etc. By understanding the nature of movements, and the likely risks of each movement we can target interventions to be the most efficient, both for government and for the industry.

Trying to go further than a paper capture which limits the potential spread of the information, this project is dealing with a web-based approach aiming to be used on a transboundary basis: data is gathered in the field by authorised surveyors and transmitted either by SMS or web capture. Links with circulation roads, animal density maps are implemented. Further details of this presentation are provided in Appendix 32.

8. REGIONAL RESEARCH AND TECHNOLOGY TRANSFER (COMPONENT 6)

i) Country Reports

No comment from member countries.

ii) SEAFMD Research Priorities

Dr Ronello Abila explained the objectives of a study on research priorities, supported by the AB-CRC, to identify priority research needs to achieve SEAFMD 2020. Six key research areas were identified:

1. understanding the market chain of different species;
2. understanding the spatial and temporal distribution of FMD serotypes;
3. effectiveness of different vaccination strategies;
4. investigating the roles of different species in the transmission of FMD;
5. comparative studies of disease control management strategies; and
6. socio-economic impact.

Dr Abila concluded by informing the meeting of the future direction in finalizing the FMD research priorities. This would involve collaboration with research institutes and with FAO as well as other international organizations. For more information see Appendix 33.
iii) Preliminary studies on FMD virus persistence in Thailand

Dr Wilai Linchongsubongkoch presented information on the study of FMD virus persistence in Thailand. The study of FMD carrier in local livestock in Thailand has been conducted under the collaboration research of Global FMD Research Alliance (GFRA) between USDA and DLD Thailand. The objectives of this study were to determine the molecular epidemiology of FMD virus and to analyse viral and genomic factors influencing the persistence of FMD virus in local livestock in Thailand. It was described that the first batch of sample collection from infected cattle has been conducted including collection of probang saliva and blood samples. Further details of this study are provided in Appendix 34.

Discussion
• There was some discussion on incentives for farmers participating in the study and the need to educate and inform farmers about the purpose of the research.

• A further comment was made regarding the value of using probang sampling in pigs. Dr Sakamoto mentioned that while it is very useful to sample pigs, he did not consider probang to be a useful approach. Further, the rationale of investigating the carrier status of the pig was questioned.

• Dr Wilai requested advice on collection and handling of probang samples to improve the level of recovery of virus in samples. Dr Martin Ilot who has extensive experience in probang sampling of cattle presented advice on probang sampling and sample handling. A description of the probang sampling method and sample handling was provided by Dr Martin Ilot, Merial and provided to Dr Wilai.

iv) Progress on FMD Vaccine Development

Dr Philippe Dubourget, Merial, and Dr Paul Van Aarle, Intervet, made a joint presentation on the progress of FMD vaccine development. Dr Dubourget noted that his presentation is a joint paper between Merial and Intervet on FMD Emergency Vaccine Supply. He described when the emergency vaccine would be required and what would be the constraints of the emergency vaccine supply.

Dr Van Aarle then explained the factors that can influence the production of the FMD emergency vaccines. He explained that the whole process is underpinned by the manufacturing capacity and that the vaccine companies must comply with the EU regulations for quality assurance of FMD vaccine. Dr Van Aarle also emphasized the risk versus the costs for regulation of FMD vaccines.

Dr Dubourget mentioned some possible short cuts that could be initiated in order to speed up the release of FMD emergency vaccine when the demand increases: by creating an inventory or stockpile reserve; and/or by building an FMD antigen bank. He stressed the importance of the release of the FMD antigen bank to recipient countries, noting that this would be a possible mechanism to be used by SEAFMD Member countries. For further details of the presentation of Dr Dubourget and Dr Van Aarle, refer to Appendix 35.

Discussion
• A question was raised as to definition of an emergency. It was clarified as: an outbreak that is declared by the Chief Veterinary Officer, allowing the CVO to release the vaccine.

• Other issues raised included quality assurance of vaccine production. It was noted that quality assurance procedures must be conducted internally before the products are released. There is a general recognition on QA procedure by the EU member countries, but in case of non-EU importing countries then it has to follow the said country regulation.

• It was asked how the antigen bank was maintained. It was said that the company guarantee the antigen for a period of 5 years and the vaccine for 18-24 months.
9. LIVESTOCK SECTOR DEVELOPMENT INCLUDING PRIVATE SECTOR INTEGRATION (SEAFMD COMPONENT 7)

i) Country Reports

No comment from Member Countries.

ii) Report of the Private Sector Consultative Meeting

Dr Boonpeng Santiwattanatam reported on the engagement of the Private Sector during 2008-2009. There were two meetings involving the private sector during early 2009, one held in Thailand and the other one in Myanmar. Both meetings were conducted as part of the AusAID SPS Capacity Building project to strengthen FMD control. 33 members of the private sector attended the Private Sector and Traders Meeting in Thailand. During the meeting, SEAFMD and Department of Livestock Development (DLD), Thailand gained feedback from the private sector on movement regulations and animal health. A workshop was also held to determine the movement pattern and trade pathways based on the discussion during the meeting.

In Myanmar, a meeting of the MTM taskforce for FMD control was organised as part of the SPSCBP Project. This involved the LBVD, other government agencies and members of the private sector. One of the major private sector groups involved in the livestock industry in Myanmar is the Myanmar Livestock Federation (MLF). Dr Boonpeng described the activities of the MLF and the outcomes of the taskforce meeting. Further details of both meetings are provided in Appendix XIII and Appendix 36.

Dr Boonpeng concluded by noting the importance of engaging the private sector in disease control programmes, and the need for continued and enhanced engagement of the private sector in the future.

Discussion

- Delegates thanked Dr Boonpeng for his support in engaging the private sector and recommended that there should be continued engagement, and that these occasions should be used to inform the private sector on issues relevant to FMD including.

10. PUBLIC AWARENESS AND COMMUNICATION (SEAFMD COMPONENT 3)

i) Country Reports

No comment from Member Countries.

ii) SEAFMD Communication Plan

Ms Nichola Hungerford, SEAFMD RCU Communications Officer, described the activities of the SEAFMD communications strategy over the previous 12 months. She described the challenges of communications for FMD in South-East Asia noting that no countries currently have a dedicated person for communications for FMD and that no countries have budget dedicated to FMD communications.

Ms Hungerford described some of the activities including: development of public awareness materials for FMD in Cambodia; and addition of a communications chapter in the outbreak investigation manual and training course. It was explained that a gap analysis was conducted which identified certain needs including the need for a framework to develop communication materials. Ms Hungerford described some field activities including grass roots level work in Laos and visiting traders and private quarantine stations in Thailand. Other activities were described, the details of which are provided in Appendix XIV and Appendix 37.

The development and progress of the communication plans for the progressive zoning areas (MTM, UMZ and LMZ) were described. It was noted that while most of these have been developed, they continue to be refined. Future plans were described: to continue to develop national communication plans; further development of mascots, where relevant; and to develop a specific information sheet for traders.
Ms Hungerford concluded her presentation and explained to participants that, regrettably, she would be leaving the SEAFMD RCU due to Australian Volunteers International would no longer be supporting the position of Communication Officer with SEAFMD.

**Discussion**
- Dr Loganathan thanked Ms Hungerford for her work with SEAFMD over the past three years, and wished her luck in her new directions, stating that she would always be welcome in the Region.

11. **POLICY, LEGISLATION AND STANDARDS TO SUPPORT DISEASE CONTROL AND ZONE ESTABLISHMENT (SEAFMD COMPONENT 5)**

**i) Country Reports**

**Thailand**

Thailand noted the progression of legislation related to animal health in Thailand.

**ii) Update on Standards (OIE Code and Manual) in relation to FMD**

Dr Gaston Funes presented the OIE standards in relation to FMD. Dr Funes began by presenting the mandate of the OIE and general details on the OIE *Terrestrial Animal Health Code and Manual*. It was explained that the standards in the Code represent the outcome of risk assessments (RA) and thus makes additional RA redundant or unnecessary. Therefore, the OIE is encouraging members to follow the Code rather than systematically conducting risk assessments. The content of the two volumes of the OIE *Terrestrial Animal Health Code* were described. All material is now included in the manual under the specific disease chapter, rather than in a separate annex.

Proposals for amendments to the Code to be presented at the 2009 General Session were presented and included: change the term buffer zone to protection zone; and the term protection zone will be used not only for FMD but also for other diseases where applicable.

The proposed changes to the manual were also presented: maintenance of FMD virus in small ruminants and Asian Buffalo needs more clarification; importance of genome sequence for discrimination of closely related virus and for analysis of transmission pathways between farms and regions during outbreaks; and estimation of vaccine potency.

There was also discussion on commodity trade and on the use of compartmentalisation for FMD. A draft proposal of the latter issue will be provided to OIE members for comment at the OIE General Session in May 2009.

The process of developing and updating the OIE Codes and Manuals was presented, noting that there are many opportunities for members to contribute to this process. Dr Funes presented the participation of SEAFMD countries in the OIE standard setting process, indicating that there is very little participation from them. He encouraged SEAFMD member countries to participate more actively in this important process.

Dr Funes concluded by noting the importance of presenting the SEAFMD Campaign Programme at the Global FMD meeting in Paraguay in 2009 as a model for regional FMD control. More information on his presentation is provided in Appendix 38.

**Discussion**
- There was extensive discussion regarding the progress of the application for OIE recognition of freedom with vaccination in the Philippines, and the implication of the current OIE Code on the future of the progressive zoning approach employed in South-East Asia. Dr Gaston Funes suggests that the member countries should participate more actively in the standard setting process by presenting scientifically based proposals for amendments of the Code. Further comments were provided on this issue by Dr Bernard Vallat later in the meeting.

- Dr Loganathan stated that Malaysia supports the comments of the Philippines and suggested that member countries draft proposals to submit to the OIE and also request the assistance of the SEAFMD RCU in developing such proposals.

- Dr Prasit requested clarification on compartmentalisation for FMD, and the stipulation that it must be recognised as free without vaccination. He wished to know whether compartmentalisation might be used in a situation where there is freedom with vaccination. Dr Funes said that this is very a very new direction and that
the first approach to applying compartmentalisation for FMD will be freedom without vaccination. Compartments are based mainly on management and biosecurity measures – so could be applied just to pig production with very high biosecurity measures, or reproductive centres (embryo production etc), but for an open system this is not appropriate. However, he noted that if member countries have a strong proposal with a scientific basis, then they should send this to the OIE.

iii) Progress of the MTM Campaign

The progress of the MTM Campaign was presented by Dr Ronello Abila. The history and background of the MTM Campaign was described. Main achievements were presented including: development of a surveillance strategy for the MTM by Dr Peter Black; development of MTM standards by Dr Jenny Turton; Biosecurity by the late David Banks; establishment of the EpiNet; and zone progression in Myanmar with achievement of the first Eradication Zone in the MTM.

The outcomes of the 9th MTM Tri-State Commission meeting were presented, indicating some of the major recommendations from the meeting, and the progress against these recommendations. Dr Abila then presented the challenges of how to continue to progress zone status in the MTM. The recommendations and further details of the presentation are provided in Appendix 39.

Discussion

• There was some discussion as to whether the MTM Zone would be recognised on a zone basis or on an individual country basis at such a time that it was ready to seek recognition for freedom from FMD. Dr Gaston Funes noted that it could be accepted as a zone, though applications are usually made on a country by country basis. He stated that if there is enough scientific evidence for this then, technically, it should be possible. Dr Loganathan noted that from the experience of applying for recognition of FMD freedom in Sabah and Sarawak that each country should apply for recognition of a particular zone.

• A recommendation was made to consider what the Code is aiming to do and that member countries should consider the Code and suggest amendments to that Code, assuming that a technical proposal can be submitted.

iv) Animal Movement Management for FMD Control in Mekong Region

Dr Itsuo Shimohira OIE Asia-Pacific, reported the outcomes of the Meeting of Upper Mekong and Lower Mekong Working Group on Zoning and Movement for control of FMD. The major outcome and recommendations of these meeting are summarized from some viewpoint such as Strategy, Operational, Reporting and Surveillance and Animal Movement. The details of his presentation are provided in Appendix 40.

12. INTERNATIONAL COORDINATION AND SUPPORT (SEAFMD COMPONENT 1)

i) Country Reports

No comment from Member Countries.

ii) ASEAN Report

Dr Suriyan Vichitlekarn began his presentation by stressing the importance of the cooperation between ASEAN and OIE. He added that ASEAN was very keen on promoting the battle against FMD and recognized the model the SEAFMD campaign represents for regional disease control.

Dr Suriyan announced that ASEAN moved, in December 2008, from a country-association to a rule-based inter-governmental organization endorsing blueprints for Political and Security, Economic and Socio-cultural matters, and a Work plan for Initiative for ASEAN integration. He explained that this is relevant to the SEAFMD campaign especially regarding ASEAN Trade in Goods Agreement (ATIGA) towards a single market and production base. Some partnerships are developed for instance with Japan and Australia leading to free trade agreements.

Dr Suriyan presented the cooperation of ASEAN on Livestock, noting the existence of a sectoral working group, which is working on various topics such as: utilization of animal vaccines; strengthening animal disease control; sharing information (implementation of ARAHIS); and trade aspects.
Concerning the transboundary animal diseases (TADs), Dr Suriyan described the approaches of ASEAN, recognizing the need to strengthen veterinary services, emphasizing, particularly, the importance of partnership with agencies such as FAO and OIE and acknowledged that it is essential to promote a multi-sectoral approach, including public health aspects. The main initiatives of ASEAN regarding TADs were the implementation of a sharing information system (ARAHIS) to provide up to date epidemiological information (on HPAI, FMD, CSF, Newcastle disease, rabies) and the setting up of the Animal Health Trust Fund to support animal health projects.

In the field of TADs, ASEAN has developed different cooperation projects with international and national agencies and consider comparative advantages from each partner in order not to overlap. He described the signing of an MOU between ASEAN and OIE in 2008 and the ongoing discussion with the European Commission on the EC Highly Pathogenic Emerging and Re-Emerging Disease (EC-HPED) project.

In relation to FMD, ASEAN considers that the 2020 Roadmap is a framework to be used as an example. Part 2 of Phase III of the SEAFMD campaign is a very good framework to set up a long term support by ASEAN. He noted that ASEAN is looking to further integrate the SEAFMD campaign and FMD control in its priorities and that this must be discussed with organizations including AusAID which supports this project. Dr Suriyan noted that some issues have not yet been solved and they require more information to support an ad hoc group. He noted that terms of reference are needed to implement an independent study.

Further information is provided in Appendix 41.

Discussion
- Dr Loganathan stressed the fact that the transfer of the SEAFMD campaign to ASEAN was a very important issue and had to be studied carefully. ASEAN had to deal with a problem of resources. FMD campaign had to be considered as a great knowledge and had to be used as an example.

- John Edwards asked if ASEAN planned to have engagement with China about FMD control measures. Dr Suriyan answered that for the moment they have some special cooperation for SPS but focused on food safety. However, the cooperation mechanisms are existing and could be applied for the animal health field. He noted that ASEAN appreciate the work the SEAFMD programme is doing with China.

- Dr Bernard Vallat welcomed the presentation from ASEAN and added on behalf of OIE that ASEAN is a very important body for the activities in the region and that OIE considers that it's very important to improve the ASEAN OIE bridge in all the topics of collaboration and that the current support of AusAID and EC are reinforcing this bridge. OIE welcomes this way of reinforcement of collaboration.

- Dr Vallat stated that OIE is working to integrate the ARAHIS system to WAHIS and is just waiting for the official signature before launching the integration in the software. This is expected to happen very soon. He stated that in spite of this integration, ARAHIS will continue to provide special information to ASEAN countries and OIE legal information to its member countries. There will be a common body while also maintaining the specificities according to OIE and ASEAN countries.

- Dr Vallat welcomed the setting up of an independent survey to improve the bridge between the two organizations. OIE agreed to be a co-funder of this survey. As soon as ASEAN will accept this proposal, the RCU will work on it and find the resources for it. He considered that it’s a good idea to have an ad hoc working group on this topic and urged his colleagues of the RCU to work on that also.

- Furthermore, Bernard Vallat added that OIE can support the setting up of regional cooperation between countries which are sharing borders that are difficult to control. For example, Brazil, Argentina and Paraguay implemented specific measures such as the implementation of protection zones at each side of the border and asked for the OIE to be an independent control body of this engagement. In the same way, OIE will support ASEAN countries when they make an application for free status.

- Regarding the application of the Philippines for recognition of free FMD status, Dr Bernard Vallat added that it is a matter of importance that must be solved. The negative response given by the Scientific Commission was due to problems in the control of some movement, some conditions of surveillance and vaccination coverage. Bernard Vallat wants to be sure that Philippines will succeed next year and he engages RCU to be involved and provide all the necessary support in the new application for the free status which will be discussed in May 2010.
13. PROGRAMME MANAGEMENT, RESOURCES AND FUNDING (SEAFMD COMPONENT 2)

i) SEAFMD Roadmap 2020 Consolidation Phase: Opportunities and Challenges

Dr Ronello Abila presented the progress of the consolidation phase of the 2020 Roadmap strategy. The goals and objectives of the 2020 Roadmap strategy were presented, outlining the 3 main phases of the Campaign.

Dr Abila explained that the consolidation phase will focus on gaining ground in the control zones of mainland South-East Asia and setting up emergency preparedness and contingency plans at the regional and at the national levels. He then presented the strategic directions of the phase, including: strengthening of international coordination programme and management; mobilization of stakeholder support; strengthening of control measures; strengthening of policy and legislative support; and strengthening capacity for emergency preparedness.

Finally, Dr Abila presented the requirements for success of the consolidation phase and for achievement of the 2020 objective for FMD freedom as: continuous strong political commitment from member countries; donor support; regularly update national FMD plans in line with SEAFMD 2020; maintain the RCU to orchestrate in the implementation of the SEAFMD Campaign. Further detail of this presentation is provided in Appendix 42.

Discussion
- Dr Prasit Chaitaweesub asked for more explanations about the Protection Zone and its application in the region. Dr Bernard Vallat responded that the Protection Zone is a concept which includes a geographic and a policy component. There are no real differences to the zoning.
- Dr Carolyn Benigno stated that the mechanisms to involve stakeholders were usually considered only during a crisis, and suggested that it would be better to consider involvement of stakeholders during peacetime in order to be more efficient and better prepared for a crisis.

ii) 2020 Roadmap Tools

Dr Tata Naipospos presented the progress that has been achieved in the development of the Roadmap Toolkit during the past 12 months. The Toolkit covers a wide range of aspects which are the essential tools to successfully achieve the goals of SEAFMD 2020. The Toolkit is intended for disease control managers operating at all levels in each of member countries.

Dr Tata explained that the Toolkit consists of 14 chapters plus annexes and that the references, resource materials and other supporting documents are placed at the end of each chapter. She emphasized that the Toolkit has to be considered as a living document. The elements which are covered under each chapter were then described (see Appendix 43). First drafts of some chapters have been circulated to Member Countries during the meeting for comments which would assist with the next step of finalizing the draft of all chapters. Dr Tata proposed that the Toolkit should be refined by a technical editor which will be appointed by SEAFMD RCU before being published in the form of a printed manual. For availability, she also proposed to upload the Toolkit on to the OIE SEAFMD website once it has been refined.

Discussion
- Dr Loganathan congratulated the RCU for this work which is considered as a good reference document. He suggested printing the document as soon as possible, so that it would be available to member countries.
- Dr Gardner Murray insisted that the contribution of the member countries experience in the toolkit is essential and suggested to maintain direct contact with the country representatives in order to make the process more efficient.
- Dr Naheed suggested that the different member countries provide their comments and experiences during a further meeting (for example the National Coordinators meeting in August 2009) in order to ensure that all comments are collected.
14. MONITORING AND EVALUATION (SEAFMD COMPONENT 8)

i) SEAFMD Work Plan: 2009-2010

Dr Ronello Abila presented the SEAFMD work plan for 2009 to 2010. He presented first the meetings to be organised over the next 12 months (see Appendix 44) and other planned activities, including:

- Revision of the monitoring and evaluation framework
- Socio-economic studies to assess impact of FMD control.
- Continued development of communication and public awareness materials
- Conduct training to improve capacity in early detection and response
- Continue to enhance regular monthly reporting
- Update epidemiological analysis of the regional database
- Continued work on progressive zoning
- Finalise research strategy in line with SEAFMD 2020.

15. CONCURRENT MEETINGS OF DELEGATES AND OBSERVERS

The following sections report on the outcome of the SEAFMD Delegates and Observers meetings. The plenary session was used to discuss and amend the outcome and recommendations directly and is therefore incorporated into Part 15 (i) and (ii).

i) SEAFMD Delegates’ Meeting

The SEAFMD delegates meeting included member country representatives from Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam and Brunei. The delegates meeting discussed key issues and also considered the 2020 Roadmap Toolkit draft and how to progress this document. A brief description of the outcomes of the meeting and recommendations are provided below.

Key issues

Key issues raised included the following:
- The application of the Philippines to the OIE for recognition of FMD freedom with vaccination and the role of the RCU in this process;
- Laboratory sample submission;
- OIE/ASEAN relationships;
- Notification of disease;
- 2020 – awareness/sign-on and vaccine efficacy.

Vice-presidents of the OIE SEAFMD Sub-Commission were selected: Dr Prasit Chaitaweesub from Thailand and Dr Periathamby Loganathan from Malaysia.

Comments on the 2009-2010 Programme included: Monitoring & Evaluation; AGREE work plan and SUPPORT communication document.

Recommendations

These recommendations are provided here in note form but have been incorporated into the main meeting recommendations.

- Philippines FMD application / Implications for SEAFMD: Role of RCU; and Research project
- Philippines: Extension of AusAID Project
- AANZ FTA: Keep under review
- Outbreak investigations: 600 people trained; Manual; UM WG / LM WG / MTM; Animal Movements
- Epidemiology: Data analysis

SEAFMD 15th Sub-Commission Meeting, Kota Kinabalu, Malaysia
ii) Observers’ Meeting

Introduction

A total of twenty six participants attended the meeting of the SEAFMD Observer Delegates. The following key recommendations and observations arose from the meeting. These mainly reflect the general discussions held in plenary sessions. Recommendations and observations address mainly matters related to continuous funding of the SEAFMD programme, relationship between different international and regional organisations, opportunities and risks of the new concept ‘One World One Health’, key role of Veterinary Services and their good governance, appropriate sampling collection and use, availability of proper FMD vaccines, both for emergency as well as for blanket vaccination, research priorities; as well as strategies for progressive zoning and the respective application to the OIE for official recognition.

Recommendations and observations

Vaccine supply and vaccination

The importance of vaccines availability, both for emergency situation within a regional context, as well as blanket vaccination at national level mainly addressed a remanent endemic zones, identified through epidemiological studies was emphasized. The OIE confirm the advanced stage of negotiation with EC for the establishment of a FMD Vaccine Bank (for emergency and specific situations) within a broader project aimed to Good Governance. Such a project includes both Animal Health and Public Health matters also using the concept of ‘One World One Health’; therefore vaccine banks will be also established for some zoonoses, such as rabies.

It was recommended that:

- The FMD vaccine bank be established as a priority as soon as possible;
- A vaccine policy including necessary resources and blanket vaccination in epidemiologically relevant zones as part of the progressive zoning approach be applied through national programmes key donors must be convinced by countries and SEAFMD to invest in a national level;
- Countries carry out post vaccination serology testing for follow up vaccination.

Funding

The continued support provided by Australia was recognised. Funds from AusAID for Phase III of the SEAFMD Campaign will hopefully soon be available. Also funds from the EC where announced during the meeting which will support a complimentary project on good governance which will bring a synergistic supporting affect to the SEAFMD project (including financing the FMD vaccine bank) and PSVS programme.

It was recommended that:

- Other potential sources of funds be explored by the programme (including national blanket vaccinations)
- Governments provide own proper budgetary allocations as well as to seek for external funding to the full implementation of national plans (including national blanket vaccinations when relevant)
- ASEAN implement all necessary mechanisms for its Animal Health Trust Fund to become fully operational and the study for reinforcing the bridge between ASEAN and OIE will be launched using OIE resources
- The OIE continues its economical studies on cost benefit of veterinary services in order to demonstrate to policy and decision makers that animal disease prevention is considerably cheaper than crisis.
**Diagnostic capabilities and surveillance**

The meeting commented on some problems and lack of diagnostic capability of some countries. It was agreed on the need to combine diagnostic capability with the epidemiological-surveillance design as well as with the policy of governments on this matter in each country. It was also agreed that SEAFMD should develop more disease investigation programmes. A good example of donor support to improve FMD diagnostics is the collaboration between AAHL and DAH Vietnam in the CARD project in Vietnam.

**It was recommended that:**
- Donors be encouraged to support capacity building activities for National Laboratories to improve FMD diagnostic capacity
- National Laboratories comply with OIE international standards as established in the OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals*.

**Free countries/zones**

Given progress with the programme it is seen as important that greater emphasize would be given to a range activities associated with free status. They include but are not confined to the provision of practical guidelines on zoning and achieving free status, the extension or addition of new zones, and special training needs, for example quarantine and specific support from RCU to the design and follow-up of national applications.

**It was recommended that:**
- Epidemiological surveillance including serology as established in the OIE Code be applied for progressive zoning
- SEAFMD RCU provides the necessary guidance and support to countries when applying for official recognition of FMD free status to the OIE. The Philippines should be the priority followed by applications for other zones for freedom recognition.

**Research**

Priorities on research were stressed. Private vaccine companies (Merial and Intervet) reaffirmed their commitment to finance shipping of samples to OIE reference Laboratories for further research. Research needs to include epidemiology and surveillance design. The necessity of submitting field samples to Reference Laboratories for sequencing to allow epidemiological studies, as well as matching vaccines and vaccines reformulation when necessary was also highlighted.

**It was recommended that:**
- Countries improve their submission of samples to reference laboratories both for genotyping as well as vaccine matching.
- The meeting endorsed the list of priority research as presented by Dr Abila
- Sharing of relevant information on outbreaks and FMD Virus field strains be encouraged to improve vaccine development and control
- Mechanisms to improve submission of samples (quality and quantity) to reference laboratories be sought.

**Roles and relationship between different International and Regional Organisations as well as Private Sector**

It was expressed by the meeting that the agreement between FAO and OIE GF TADs both at a Global and Regional level is the proper coordination mechanism, which includes WHO at the global and regional level.

The involvement of the private sector the regional and national level was also raised by the meeting as well as the appropriate choice of representatives using existing organisations of farmers, veterinarians and ASEAN data base.

The concept of One World One Health was commented by several participants concluding that it is an opportunity for Veterinary Services considering their key role when fight zoonotic animal diseases, but it was also expressed there could be risks to avoid which could lead to a kind of dependency from the public health sectors.

The meeting supported the work of the OIE on Animal Production Food Safety and the key role of Veterinary Services at farm level to prevent food safety risks from animal products.

The meeting agreed that the global economic stimulation packages should not jeopardise the provision of resources to Veterinary Services. The economic crisis will increase risks to animal health and therefore Veterinary Services should even more be strengthened rather than limited on their functioning.
It was recommended that:

- The OIE and its members continue the improvement of good governance of Veterinary Services using OIE Standards on quality as well as OIE PVS Tool
- Existing coordination mechanisms such as GF TADS should play a key role as consultative for, as well as defining specific roles and responsibilities of each involved sector or organisation.
- Governments endorse the responsibility of Veterinary Services, by providing all necessary resources and political support on their leading role when fighting animal diseases including the relationship with the public health sector when referring to zoonosis
- Participants of SEAFMD which will attend expert consultation in Winnipeg Meeting on ‘One World One Health’ next week, actively convey this message
- A study on how to reinforce the bridge between ASEAN and OIE SEAFMD be encouraged
- Relevant representatives of farmers and private veterinarians at a nationals levels be identified as well as using ASEAN database
- Veterinary Services representatives attend Codex meetings in order to bring understanding of the links between animal production and food safety.

SEAFMD neighbouring countries

It was highlighted the importance of the participation and collaboration of SEAFMD neighbouring countries for succeeding in the programme

It was kindly recommended that:

- China be officially incorporated as a member of the SEAFMD programme.

FMD Global Conference in Paraguay

The meeting supported the joint OIE / FAO initiative to start moving towards the Global Control of FMD.

The Global Conference to be held in Asunción, Paraguay, in June 2009, will be a good opportunity to showcase the SEAFMD Roadmap 2020 as a model for other regions, as well as for other diseases. All SEAFMD members and neighbouring countries are urged to participate

It was recommended that:

- The SEAFMD Programme be presented in the Global Conference in Paraguay as a model to be followed in other regions as well as for other diseases

iii) Plenary session to report outcomes of the Delegates’ and Observers’ Meetings

The discussions and outcomes of the plenary session are incorporated into Part 15 (i) and (ii) above.

16. FIELD TRIP REPORT

On Thursday 12 March all delegates attended a field trip to the beautiful Mount Kinabalu National Park. The coaches departed from the hotel in the early morning and arrived at the national park in time for participants to visit a local market selling handicrafts before moving to one of the walking routes through the forest at the base of Mount Kinabalu. All participants walked along the trail until reaching the zoological gardens. Here, a short presentation on the fauna and flora of Mount Kinabalu National Park was shown before proceeding to lunch which was generously hosted by State Government of Sabah, Malaysia.

The field trip provided a unique opportunity to experience some of the natural beauty of Sabah, for which we are extremely grateful to our hosts, the DVS and to the organising committee for arranging a most enjoyable visit.

SEAFMD 15th Sub-Commission Meeting, Kota Kinabalu, Malaysia
17. OIE AVIAN INFLUENZA AND EMERGING DISEASES MEETING

i) OIE Global Programme on Avian Influenza and Emerging Diseases

Dr Gaston Funes presented the OIE Global Programme on Avian Influenza and Emerging Diseases. He presented that good governance of VS could help to face and respond to emerging infectious diseases. He emphasised that the world is highly interconnected and that there is nowhere in the world from which we are isolated.

Dr Funes presented the main factors influencing emergence of new diseases: human demographics, economic development and land use, international travel and commerce, climate change and weather, poverty and social inequality. He also showed main causes of infection and the impacts of disease (see Appendix 45). The strategy of OIE was described, focusing on avian influenza. Early detection and early warning, rapid and transparent were emphasised as essential attributes. He stated that only with good governance of Veterinary Services will we be able to detect and respond to emerging infectious diseases (EIDs) at source and prevent risk to human health. He presented the main constraints to the control of highly pathogenic avian influenza (HPAI) and other highly pathogenic emerging and re-emerging diseases (HPEDs), including: weakness of national Veterinary Services; often no appropriate legislation in place; no official national chain of command; and disincentives for reporting.

Dr Funes stated that OIE has signed an agreement with FAO which aims to better coordinate the strength of both organisations to better coordinate the control of animal diseases. The specific roles of each of the organisations were described here and are shown in Appendix 43.

The current international sanitary governance in the field of animal origin pathogens were described and include: OIE, WTO, FAO-WHO, Codex, Biological Weapons organisation and others, as well as regional organisations. The concept of the ‘One World One Health’ was presented as a global strategy for managing risks at the animal/human interface.

Dr Funes emphasises strongly the importance of good governance of the veterinary services, again details of this are provided in the associated Appendix.

ii) FAO Global Programme on Avian Influenza

Dr Subhash Morzaria presented the FAO Global Programme on Avian Influenza. This presentation highlighted some of the key challenges faced in South-East Asia. Dr Morzaria stated that HPAI is not a simple veterinary problem, but is a complex problem with many facts.

The trends of HPAI outbreaks in poultry were shown (excluding Indonesia), demonstrating that the trend of HPAI is declining. It showed that while the overall figures for Asia were lower this year than last year, there were some newly infected areas such as Nepal, and there had been increases in some areas previously infected. The global distribution of human infections, taken from WHO figures, was also shown. These demonstrated that human infections have declined quite significantly since 2003.

Genetic and antigen evolution of H5N1 was shown. The clade system was explained before describing the evolution and distribution of the clades. The distribution of different clades throughout the world was shown (see Appendix 46). Dr Morzaria presented the analysis of the different clades, indicating that clade 2 had been introduced into Indonesia in 2003, with subsequent evolution within that clade, but with no further introductions. However, in Vietnam there have been three different introductions (clade 1 and clade 2.3.4). A summary of the GMS countries in terms of clades present in each country and the distribution were provided.

It was noted that FAO is now looking at the wider context and is putting more emphasis on communication. Dr Morzaria noted some positive developments in cross border collaboration, noting those between: Myanmar and Yunnan; Laos and Yunnan; and South Vietnam and Cambodia.

Dr Morzaria provided details of the key elements of a long term HPAI strategy such as country level versus regional level control. He explained that disease risk could be addressed at a regional level by doing three things:

- understand the value chains, initially through cross-sectional studies and then longitudinal studies in order to understand better the flows of the chain;
- overlay epidemiological studies, virus isolation in various farming sectors and disease control environments; and
- mapping the production sector and define socioeconomics.
Dr Morzaria noted the importance of continued research and also emphasised that the investment in HPAI must also have an impact on the emerging infectious diseases.

### iii) European external response to avian influenza and other emerging diseases

Dr Alain Vandersmissen presented the ‘One Health’ concept: putting the concept into practice and the current situation and perspectives for South-East Asia. He presented the progress from 2005-2009, including: a coordinated response to the avian influenza crisis; a regional cooperation programme on highly pathogenic emerging and re-emerging diseases; and putting ‘One World One Health’ into practice. He described a mid-term review of the regional strategy for Asia 2007-2013 as a multi-annual regional programme for cross-border cooperation in animal and human health.

Dr Vandersmissen presented the EC statement on One Health, noting that the EC welcomes and encourages the evolution of the avian influenza response towards a concept of a more integrated and global approach to health (see Appendix 46 for more details). He continued by describing recent initiatives of the EC, and noted that PACE was the first programme to systematically include a wildlife facet of veterinary activities.

The regional strategy in Asia 2007-2013 was presented: an outline was provided of the activities and then the financial perspectives of the project were provided, noting that when the contracts have been signed by OIE, FAO and WHO, all the funds will be allocated. The strategic regional priorities were presented as: support to regional integration and dialogue; policy and know-how based cooperation; environment, energy and climate change; higher education and research; cross-border cooperation in animal and human health; and support to uprooted people.

The purpose of new collaborations with OIE channelled through the world animal health and welfare fund were described, the details of which are provided in Appendix 47. He then continued by describing the main objectives of cross-border cooperation in One Health: to develop and implement strategic, multisectoral plans and actions with respect to avian influenza and other HPED preparedness; to strengthen the regional (ASEAN-SAARC) and national capacity to exchange information, Technical Assistance (TA), to control avian influenza, to ensure rapid response and containment; and in the long term: sector reforms and changes in human-livestock interaction, in the respect of livelihoods, to reduce risks of human-human transmission and increase capacity of handling HPED.

Dr Vandersmissen concluded that there had been an evolution from HPAI to HPED and then to One Health. He emphasises again the support of the EC for the One Health approach.

**Discussion**

- This was a very comprehensive presentation and contained a great deal of important information. Participants of the meeting were encouraged to read the documentation and the presentations and to continue to use them as a reference.

### iv) Australia programmes on avian influenza and other emerging infectious diseases

Mr Royce Escolar gave his apologies for not attending the earlier part of the meeting and provided a presentation on Australia Programmes on avian influenza and other EIDs.

The pandemic and EID strategy of the Australian government and particularly AusAID was presented. The framework of AusAID 2006-2010 were presented, noting the geographic priorities as the Asia Pacific with more emphasis on those countries that neighbour Australia. The objective of the strategy is to increase capacity of member countries in terms of planning and preparation of EIDs through: recognition; control; prevention; strengthening national systems; and rapid response to an outbreak.

It was noted that although avian influenza is considered important, there is a shift from avian influenza, to EID to One Health. The Prime Minister of Australia was seen to recognise the importance of disease and noted that disease, and particularly pandemics continue to be a priority for Australia.

Australia was one of the first countries to respond to Indonesia’s avian influenza challenge, noting that activities in Indonesia were supported by AusAID. He then presented activities in Papua New Guinea, Timor Leste, Philippines, Vietnam, Laos, Cambodia, Myanmar, China, and the Democratic People’s Republic of Korea. The details of these national programmes, and the regional programmes, are provided in Appendix 48.

Scholarships and research programmes were presented, noting the importance of research in SEAFMD Phase III. It was noted that AusAID awards a number of scholarships in the region. The details on the research and scholarship programmes can be seen in Appendix 48. Mr Escolar also directed interested people to the AusAID website.
Mr Escolar presented the overarching context of AusAID as:

- renewed focus on poverty reduction and the Millenium Development Goals;
- commitment to partnership approaches;
- mainstreaming of social issues across programmes;
- expanded efforts in delivery of basic health and education services, water and sanitation;
- climate change and the environment;
- target overseas development aid (ODA) to gross national income ratio of 0.5% by 2015.

It was presented that AusAID has approved funding for SEAFMD Phase III (2009-2011): 2.6 million over two years, also with consideration of aid effectiveness with high priority given to monitoring and evaluation. A monitoring and evaluation specialist from AusAID will meet with SEAFMD and member countries. This will include consultation with member countries and SEAFMD, research on socio-economic impacts and research and resource gap analysis, so that member countries know where to address, also partnerships capturing the technical indicators and regional programme value added – with member countries and regional organisations. One of the objectives of this would be to disseminate the information of this project to wider audience – noting that preventing FMD would be the best approach compared to reacting to an outbreak.

Discussion

• AusAID was thanked for their continued support of OIE SEAFMD.

v) Progress with GF-TADs in Asia and the OIE/JTF Regional AI Programme

Dr Fujita presented the GF-TADs programme in Asia. He highlighted the regional mechanism, organisation and activities. It was noted that there are four targeted diseases in the region: HPAI, FMD, CSF, PPR (South Asia only). The current situation in ASEAN was presented, the key components included: establishment of a functional RSU in Jakarta; leading laboratories for HPAI in Malaysia, FMD in Thailand and classical swine fever in Vietnam; the SEAFMD project (2020 Roadmap) for FMD; and the ASEAN HPAI Task Force for HPAI.

He presented the plans for activities in 2009. These are provided in detail under Appendix 49.

Dr Fujita then presented HPAI activities in the region. He presented the OIE/JTF project for strengthening HPAI control in South-East Asia, giving information on the achievements under the project so far, and the future plans of the project.

vi) One World One Health

Dr Subhash Morzaria gave a presentation on ‘One World, One Health’. Details of HPAI meetings were presented, noting that a great deal of money was being spent on HPAI and that many of the infected countries had indeed eradicated HPAI. Dr Morzaria emphasised that the HPAI crisis had provided a good opportunity for international collaboration. He described the planning of the strategy and development of a planning document. However, it was emphasised that this document is intended to be dynamic and is not ‘set in stone’.

The first component of the document focused on lessons learnt from HPAI: economic development and disease; disease control and livelihoods; role of wildlife and transmission; understanding epidemiology; cross-sectoral collaboration, etc. The next component included EIDs: the main characteristics; the economic impacts and other impacts of EIDs (main influence of impacts depended on whether or not the disease was zoonotic and on the location of the disease). The economic study showed that prevention is more cost effective than control. The document considered trends in farming practices, drivers of disease emergence and others. Climate change was also included in the strategic framework, the spread of pathogens (globalised travel and trade). Finally the pathogen risk factors were included. The major goal of the programme is to diminish the threat and minimise the global impact of epidemics and pandemics due to highly infectious and pathogenic diseases of humans and animals. This has a broader vision to improve: public health and food safety; food security and livelihoods of poor and vulnerable people.

It was described that the project utilises the ‘One World One Health’ concept, the major thrusts being preventative action and addressing root causes of the drivers, building more robust public and animal health systems, strengthening the national and international emergency response capabilities, and better addressing the concerns of the poor. The priorities of the programme were presented at the country level, the country and regional levels and the international level. Full details of these are presented in Appendix 50.

The financial framework and the preliminary cost estimates were presented. The total cost for the next ten years would be 10-15 billion dollars on ‘One World One Health’ which is still considered less than a pandemic.
In conclusion, Dr Morzaria presented the future plans or next steps of the programme: conducting wider consultation with countries, regions and other key partners; political commitment at the country level; importance of cross-border collaboration; refining the strategic framework if appropriate; developing implementation strategies and plans; mobilizing resources for implementation and establishing timeframes for the above actions.

vii) ASEAN Programme on AI and One World One Health

Dr Loganathan presented the paper on behalf of the ASEAN representative, Dr Suriyan. The presentation opened with a description of the HPAI situation amongst ASEAN member countries, noting that six out of ten Member Countries of ASEAN are currently still infected by HPAI and four of them are free (Malaysia, Singapore, Philippines, and Brunei). As part of ASEAN efforts to address HPAI at the animal health level, the ASEAN HPAI Task Force was established. Dr Loganathan explained that the Task Force has been involved with setting up the Regional Framework for Control and Eradication of HPAI in ASEAN (2006-2008) and that this strategy has been endorsed at the Special Senior Officials Meeting of ASEAN Ministers on Agriculture and Forestry (SOM-AMAF) level.

Dr Loganathan went on to explain several other significant area of progress and achievements which have also been endorsed by SOM AMAF (see Appendix 5). Details were provided on the ASEAN Regional Strategy of the Progressive Control and Eradication of HPAI (2008-2010), highlighting key components of the regional strategy, details of which are provided in Appendix 49. Dr Loganathan presented that ASEAN secretariat has developed many areas of collaborations, for example: ADB and JICA on HPAI control, ASEAN Plus 3 on EID and EU on HPED. ASEAN is also working towards improved Pandemic Preparedness and, as part of this, an ASEAN Technical Working Group has been established.

Details were provided on the animal health activities of ASEAN, including a Working Group on Livestock and the Animal Health Trust Fund. The presentation concluded by stating that ASEAN would continue to exert leadership and coordination in HPAI control and eradication in the region.

Discussion

• A proposal was made by Dr Lee Sang-Jin from the Republic of Korea. He proposed to hold a workshop on outbreak investigation and management, and animal movement management in the Republic of Korea, to be jointly funded by the Government of the Republic of Korea, and the OIE would fund flights for international trainers. He noted the importance of investigating outbreaks and his experience in Republic of Korea in investigating a range of disease outbreaks including HPAI, Brucellosis, Tuberculosis and FMD. As part of this proposal, Dr Lee Sang-Jin invited Dr Polly Cocks, from Murdoch University and Dr Hiro Yoshimora from the Ministry of Agriculture, Forestry and Fisheries, Japan, also to include other specialists such as ASEAN +3, OIE Asia Pacific. He requested this to take place in June/July 2009.

• Dr Alain Vandersmissen raised a question regarding the budget of the One Health and the role of donors including international bodies such as the European Commission. He stated that a large amount of the total budget must be absorbed by the countries, the national governments all over the world. Therefore, he asked whether there was a breakdown available of the budget in terms of what will be handled by the national governments and what will be handled by international donors.

• The reply from Dr Morzaria was that there currently no set figure, that the figures provided in the presentation were ballpark figures. The figures were taken from examples of the cost of a global programme for HIV for example, and then used to estimate the funds needed for this type of programme. Dr Morzaria stated that much of the capacity building project would be based on loans from the World Bank, and that those countries which are economically lower, would be supported by other countries with emerging economies.

18. OIE/AUSAID PROGRAMME ON STRENGTHENING VETERINARY SERVICES (PSVS)

i) OIE programme to improve good governance of Veterinary Services

Dr Gaston Funes presented the OIE programme to improve good governance of Veterinary Services. The presentation opened by describing some general features of the OIE including its membership, mandate and recognition of OIE as a global public good. Dr Funes stated that the OIE considers the animal health service of the Veterinary Services of Member Countries as a global public good.
In terms of progress of good governance and strengthening veterinary services, it was presented that OIE has established a chapter on Quality of Veterinary Services in the OIE Code to provide international veterinary services standards. He then presented the PVS tool used to assess the veterinary services of member countries.

Dr Funes further explained the OIE PVS Tool in terms of its fundamental components, the level of compliance, and each of the critical competencies under each of the fundamental components. He mentioned the PVS approach has to be considered as an external independent evaluation, but not as an audit. Then he described the steps and the process in the OIE PVS evaluation. The PVS report has to be treated as confidential and owned by the evaluated country. He emphasised that OIE will not share the report to other third parties.

So far, OIE has received a request from 93 countries and 79 countries are completed. The OIE target is to finalize the evaluation of 103 countries within three years. There are six Member Countries in ASEAN that have carried out the PVS evaluation, which are Vietnam, Laos, Cambodia, Indonesia, Philippines and Brunei.

Dr Funes presented the gap analysis as the PVS outcome which will be used as a tool for evaluating needs and priorities for the purpose of investment. This will be done together with OIE collaborators such as FAO and others. He stressed the need for Member Countries to pursue the gap analysis further and encouraged them to follow with a request to OIE. He also mentioned the OIE PVS follow up missions to achieve the final completion of the OIE standard, but stated that this will be done on a voluntary basis. See Appendix 52 for further details.

**ii) Progress with the OIE/AusAID PSVS**

Dr Ronello Abila presented progress with the OIE/AusAID Programme on Strengthening Veterinary Services (PSVS). Dr Abila began by describing two Project Steering Committee meetings for the PSVS that where conducted in Vietnam in March 2008 and in Thailand in October 2008. He explained that among the key decisions made was an agreement to allow flexibility in the use of project funds.

Dr Abila continued by describing some of the meeting held under the PSVS programme over the past 12 months. The 1st Regional Workshop on Veterinary Legislation and Governance was held in Phnom Penh, Cambodia in May 2008. He noted that the OIE has worked closely with FAO which has conducted several missions on legislation improvement in the region. He also reported the 1st Regional Workshop on Emergency Preparedness and Contingency Planning held in Chiang Mai, Thailand in September 2008. Dr Abila also reported that two national seminars had been conducted to discuss the OIE standards and how countries can improve their Veterinary Services to attain the OIE standards, held in Thailand, July 2008 and Philippines, September 2008. He mentioned also that presentation on OIE standards has been made in national conventions of veterinary associations in Thailand, Malaysia, Indonesia and Myanmar.

Dr Abila also presented the support of the OIE to the avian influenza laboratory in the region, noting that one workshop had been conducted relating to this. The presentation was concluded by highlighting the PSVS activities which will be carried out in 2009. Further details are provided in Appendix 53.

19. **GENERAL BUSINESS**

**i) Finalizing recommendations and reports**

The draft recommendations were presented to the delegates and the observers at the meeting and comments invited on each recommendation. The second draft of the recommendations was then sent to all meeting participants immediately following the meeting to allow time for any further comments and input.

**ii) Date and venue for the next Sub-Commission Meeting**

It was agreed to hold the next meeting of the OIE Sub-Commission in Myanmar in March 2010.
20. CLOSING CEREMONY

Dr Loganathan Periathamby presented the closing remarks on behalf of the Department of Veterinary Services of Malaysia. He stated that it was an honour to have Dr Bernard Vallat, Director General of OIE present and the meeting and the Right Honourable Deputy Chief Minister of Sabah to open the meeting. Dr Loganathan stated the importance of sharing technical information, but also noted the valuable opportunity to make acquaintance and network with people at meetings such as this.

He continued by thanking a number of people and organisations that had contributed to the meeting. He first acknowledged the assistance of Dr Naheed who has been overseeing all activities in preparation for the meeting. He thanked the Director General of the Department of Veterinary Services, Dato’ Dr Aziz Jamaluddin.

He went on to thank all those involved with organisation and preparation of the meeting, including the transportation, the secretariat, customs and immigration and those who organised the field trip. On the international front, Dr Loganathan thanked Dr Gardner Murray for coordinating and running the programme, Dr Ronello Abila with whom Dr Loganathan has been communicating throughout the year in the organisation of this meeting. He thanked Ms Catherine Hayet, OIE Paris, Ms Chutikarn Dhebhasit, Ms Nicky Hungerford, Dr Polly Cocks, and Dr Alexandre Bouchot, a newcomer who has successfully participated in all activities of the meeting. He then thanked all those that had worked behind the scenes to make the meeting a success.

Finally, Dr Loganathan thanked all the sponsors of the event for the lunch and the dinners: Intervet, Merial, Allana. He thanked New Venture who sponsored the bag and Sutera Sanctuary Lodges for sponsoring the lunch during the field trip. He thanked all delegates and observers for attending the meeting and wished all a safe journey home.

Dr Gardner Murray then spoke on behalf of the OIE delegates and observers. He thanked the Governments of Sabah and Malaysia for their support and also those who worked hard in organising the meeting. Dr Murray stated that it had been an outstanding meeting, noting the fantastic job of the secretariat. Dr Murray thanked the team at SEAFMD RCU for their hard work and said that Ms Nicky Hungerford would be greatly missed and that we would notice a great different without her. He thanked Intervet, Allana, and Merial for their sponsorship during the meeting. Finally, he thanked the delegates for their contributions and the international observers who have taken the time to come and join the meeting.

21. ACKNOWLEDGEMENTS

The OIE Sub-Commission for Foot and Mouth Disease in South-East Asia acknowledges the continued support for the SEAFMD Campaign by its major supporters including OIE, the Australian Government through its overseas aid programme AusAID, the Government of New Zealand, the Department of Livestock Development Thailand for hosting the Regional Coordination Unit, the Government of France, the Government of Japan through its JICA programme, the OIE Japan Trust Fund, FAO, ASEAN and the Governments of all SEAFMD member countries. The Government of Malaysia was sincerely thanked for their support and arrangements for this meeting.

The work of the rapporteurs Dr Ronello Abila, Dr Tata Naipospos, Ms Nichola Hungerford, Dr Alexandre Bouchot, and Dr Polly Cocks is greatly appreciated.
8 March 2009 (Sunday)

Arrival of participants
13:30-15:30 National Coordinators Meeting
16:00-18:00 Meeting of Steering Committee

9 March 2009 (Monday)

08:00-08:30 Registration of participants

Chair: Dr Gardner Murray, President, OIE Sub-Commission for FMD Control in SEA

08:30-08:40 Objectives of meeting and modus operandi
  – Dr Gardner Murray, President, OIE Sub-Commission for FMD Control in SEA

08:40-09:10 1) Update on the world situation in relation to FMD
  – Dr Jef Hammond

09:10-09:40 2) The SEAFMD report of achievement against 2008/09 Work Plan
  – Dr Ronello Abila, Regional Coordinator, SEAFMD RCU

09:40-10:00 Analyses of FMD outbreaks in Southeast Asia in 2008 – Dr Alexandre Bouchot

10:00-10:30 Tea break

Chair: Dr Gardner Murray, President, OIE Sub-Commission for FMD Control in SEA

10:30-12:00 3) Member Status Reports (presentations on FMD Status)
  Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam

12:00-13:30 Lunch break

13:30-15:30 4) Other reports

   a) Reports from other members of the Sub-Commission – Australia, New Zealand, OIE Regional Office Tokyo and FAO
   b) Reports from collaborators and International Agencies – AusAID, ACIAR, CSIRO, EU, PR China, France, Japan, Murdoch University

15:30-16.00 Tea break
Chair: Malaysia

16:00-17:30  5) Disease surveillance, diagnosis, reporting & control (SEAFMD Component 4)

Objective: To ensure that the necessary information required to understand the regional epidemiology of the disease is available to member countries

i) Country reports
ii) SEAFMD Information System – Drs. Alexandre Bouchot and Ronello Abila
iii) Progress of FMD Regional Reference Laboratory – Dr Wilai Linchongsubongkoch
iv) Molecular Epidemiological analyses of FMD strains in SE Asia – Drs. Wilai Linchongsubongkoch and Ronello Abila

19:00-22:00  Dinner hosted by OIE Asia Pacific, OIE RCU and AusAID

10 March 2009 (Tuesday)

09:00-10:00  Opening Ceremony

Speech by the Director of the Department of Veterinary Services, Malaysia – Dr Abdul Aziz Jamaluddin

Speech by the Director General of the World Organisation for Animal Health (OIE) – Dr Bernard Vallat

Speech by the President of OIE Sub-Commission for FMD in Southeast Asia – Dr Gardner Murray

Opening Speech by the Minister of Agriculture, Malaysia

Official photograph

10:00-10:30  Tea break

Chair: Philippines

10:30-12:00

i) FMD risk pathways in the MTM – Dr Polly Cocks
ii) Managing the risks associated with livestock movement and disease spread in the GMS – Dr Ben Madin
iii) FMD Vaccine development – Dr Philippe Dubourget and Dr Paul Van Arle
iv) Progress on FMD vaccine development – representative from private companies
v) Recommendations to achieve objective for Component 4.

12:00-13:30  Lunch break

Chair: Thailand

13:30-15:00  6) Regional research and technology transfer (SEAFMD Component 6)

Objective: To identify research issues of importance to the SEAFMD programme and to facilitate participation of appropriate national and international research organisations in research and innovation through the national programmes

i) Country reports
ii) Studies on the persistence and transmission dynamics of FMD in Thailand – Dr Wilai Linchongsubongkoch
iii) Progress of the studies on the role of carrier buffaloes in the spread of FMD in Laos and Myanmar – Dr Blesilda Verin
iv) Recommendations on future research and technology transfer
7) Livestock sector development including private sector integration (SEAFMD Component 7)

Objective: To facilitate developments in the livestock sector that support disease control and optimise production, and integrate the private sector into national and regional animal health systems.

i) Country reports
ii) Report of the Private Sector Consultative Meeting – Dr Boonpeng Santiwattanatam
iii) Recommendations to achieve objective for Component 7.

15:00-15:30 Tea break

Chair: Laos

15:30-17:30 8) Public awareness and communications (SEAFMD Component 3)

Objective: To develop a communication approach/programme that allows for effective implementation of the SEAFMD programme.

i) Country reports
ii) SEAFMD Communication Plan – Ms Nichola Hungerford
iii) Recommendations to achieve objective for Component 3

9) Policy, legislation and standards to support disease control and zone establishment (SEAFMD Component 5)

Objective: To ensure that animal health policies, standards and definitions are harmonised as much as possible, so that regional animal health security is assured.

i) Country reports
ii) Update on Standards (OIE Code and Manual) in relation to FMD – Dr Gaston Funes
iii) Progress of MTM Campaign – Dr Ronello Abila
iv) Animal Movement Management in the Mekong Region – Dr Teruhide Fujita
v) Recommendations to achieve objective for Component 5

18:30-21:00 Dinner hosted by Private Sector

11 March 2009 (Wednesday)

Chair: Dr Gardner Murray
President, OIE Sub-Commission for FMD Control in SEA

08:30-10:00 10) International co-ordination and support (SEAFMD Component 1)

Objective: Through productive and effective relationships with national animal health services, promote and co-ordinate the regional FMD control programme, harmonise approaches to control and provide support to identified issues.

i) Country Reports
ii) ASEAN Report
iii) Progress with GF-TADs in Asia, Far East and Oceania – Dr Teruhide Fujita
iv) Recommendations to achieve objective for Component 1
11) Programme management, resources and funding (SEAFMD Component 2)

Objective: To define adequate national resources and funding needs for delivery of defined outputs in the regional plan.

i) SEAFMD Roadmap 2020 Consolidation Phase: Opportunities and Challenges – Dr Ronello Abila
ii) Roadmap Toolkit – Dr Tata Naipospos
iii) Recommendations to achieve objective for Component 2 – Chair

12) Monitoring and evaluation (SEAFMD Component 8)

Objective: To establish an internal and external review audit process to monitor and evaluate achievement of defined programme outputs

i) SEAFMD Work Plan 2008/2009 – Dr Ronello Abila
ii) Recommendations to achieve objective of Component 8

10:00-10:30 Tea break

10:30-12:00 13) Concurrent meetings for Groups I, II

Group I - SEAFMD delegates – Chair, Dr Gardner Murray

Group II - Observer participants – Chair, Dr Bernard Vallat

12:00-13:30 Lunch break

13:30-15:30 Continuation of Group meetings

15:30-16:00 Tea break

16:00-17:00 Report back

19:00 Dinner hosted by DVS

12 March 2009 (Thursday)

07:00 - 17:00 Field trip

Dinner hosted by Private Sector

13 March 2009 (Friday)

Chair: Dr Gardner Murray
President, OIE Sub-Commission for FMD Control in SEA

OIE Avian Influenza and Emerging Diseases Meeting

08:30-10:00
i) One World One Health – Dr Bernard Vallat or Dr Gaston Funes
ii.) Progress of FAO Global AI Programme – Dr Subhash Morzaria
iii.) Progress of OIE/JTF Regional AI Programme – Dr Teruhide Fujita
iii) Australia Programmes on AI and other EIDs – Mr Royce Escolar
iv) European External Response to AI and other Emerging Diseases – Dr Alain Vandersmissen
10:00-10:30  Tea break

OIE/AusAID Programme on Strengthening Veterinary Services (PSVS)

10:30-12:00  OIE Programme to improve good governance of Veterinary Services
             – Dr Bernard Vallat or Dr Gaston Funes

             Progress with the OIE/AusAID PSVS – Dr Ronello Abila

12:00-13:30  Lunch

13:30-15:30  General business
             i)  Finalising Recommendations and Reports
             ii) Date and venue for the next Sub-Commission Meeting
             iii) Other business

15:30-16:00  Tea break

16:00-16:30  Close of meeting
             (i)  Representative from DVS
             (ii) Dr Gardner Murray

14 March 2009 (Saturday)

             Departure of participants

Rapporteurs:

Dr Ronello Abila
Dr Tri Satya Putri Naipospos
Dr Alexandre Bouchot
Dr Polly Cocks
Ms Nicky Hungerford

Management and administration:

The secretariat, Department of Veterinary Services, Malaysia
Ms Chutikarn Dhebhasit
Ms Nicky Hungerford
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Appendix III

THE SOUTH-EAST ASIAN FOOT AND MOUTH DISEASE CAMPAIGN
PROGRESS REPORT
(March 2008 to February 2009)

Purpose:

To advise the 15th Meeting of the OIE Sub-Commission for FMD in South-East Asia Foot and Mouth Disease (SEAFMD) Campaign on progress of SEAFMD Campaign from March 2008 to February 2009.

Component 1: International Coordination and Support

Objective: Through productive and effective relationships with national animal health services, promote and co-ordinate the regional FMD control programme, harmonise approaches to control and provide support to identified issues.

Achievements:

- The 14th Meeting of the OIE Sub-Commission was successfully held in Hanoi, Vietnam from 10 to 14 March 2008. The Meeting commended the achievements of the SEAFMD campaign and concluded that it is now a mature programme and in the best situation to consolidate the control/eradication zones and further expand existing FMD free areas. Approximately 90 participants from 20 countries/territories participated. Among the highlights of the meeting were the presentation of the achievements of the SEAFMD Campaign for the past 12 months which included: training in outbreak investigation of over 500 veterinarians and veterinary para-professionals in Vietnam, Cambodia and Laos; strong developments within the various progressive zoning programmes (MTM, LMWG and UMWG); inclusion of PR China into the Campaign; continued liaison with ASEAN, industry and private sector meetings; endorsement of the 2020 Roadmap and proposal to strengthen monitoring and evaluation. The meeting also discussed progress reports by member countries, sharing of FMD information from observers and partner organisations, drafting of recommendations to further strengthen the SEAFMD campaign.

- Two meetings of National FMD Coordinators were held in March and August. A brief meeting of the National Coordinators was held in March and the regular midyear meeting was held in August. Among the highlights of the midyear meeting were discussions on the outcome of the AusAID Independent Review, including recognition of SEAFMD RCU as a model of excellence for regional coordination in animal health. Comments from the National Coordinators were gathered during a workshop on developing the SEAFMD 2020 Roadmap Toolkit, with member countries agreeing to contribute experiences and information relevant to their country to the document. The meeting noted the need for continued commitment of SEAFMD RCU and the SEAFMD member countries in striving to achieve FMD freedom with vaccination by 2020. The importance of achieving the objectives of the current Consolidation Phase (III) of the SEAFMD Campaign was noted as vital to the success of attaining the SEAFMD 2020 goal.

- Engagement of ASEAN for greater responsibility in the management of SEAFMD Campaign continues steadily. The 16th ASEAN Sectoral Working Group on Livestock (ASWGL) meeting in Cambodia in April 2008 endorsed the Recommendations of the 14th Sub-Commission Meeting. The ASWGL also re-affirmed the existing arrangement for the OIE to manage the SEAFMD Campaign until December 2010. The ASWGL also recommended to seek support to conduct a study to develop options on future arrangements for a greater involvement of ASEAN in the management of SEAFMD Campaign and other sub-regional animal health programmes.

- The Campaign continue to collaborate with other international agencies working in the region, e.g. AusAID, AFFA, the European Union, FAO, JICA, ILRI, IAEA and ADB.

- RCU staff continues to provide technical advice to the member countries. The Regional Coordinator and staff carried out missions to Cambodia (meeting with DAHP Director general and other key officials, discussion on veterinary legislation and conduct FMD outbreak investigation)
Indonesia (meeting with DGLS officials), Laos (advise on FMD surveillance and zoning), Malaysia (meeting DVS officials and discuss the revisions of National FMD programme), Myanmar (meeting Director General of LBVD and key officials, discuss FMD control and progressive zoning), Philippines (meeting with CVO and BAI FMD Task Force to provide advise in strengthening surveillance in line with FMD freedom), Thailand (meeting with Director General and key officials, visited key livestock markets and quarantine stations), and Vietnam (discuss National FMD programme and visit vaccine facility).

- Missions to engage the Ministers and high ranking government officials lead to better recognition of FMD control as priority programme by the national government. Dr Gardner Murray, President of the OIE Sub-commission for FMD Control in SEA, and Dr Abila met with the Undersecretary of Agriculture in the Philippines, Deputy Minister of Agriculture and Cooperatives in Thailand, and Minister of Agriculture in Vietnam.

- The international community continues to recognize the SEAFMD RCU as the centre of excellence pertaining to FMD in the Region. The Regional Coordinator presented a paper at the Annual Meeting of the Australian Biosecurity — Cooperative Research Centre for EID held in Bangkok from 24 to 26 June 2008; participated in the EUFMD Open Meeting of the Research Group in Erice, Italy, from 15 to 17 October 2008, and; presented a paper on Risk Assessment on cross-border spread of FMD in South-East Asia at the FAVA Conference in Bangkok from 27 to 29 October 2008.

**Component 2: Programme Management, Resources and funding**

**Objective:** To define adequate national resources and funding needed for delivery of defined outputs in the regional plan.

**Achievements:**

- With endorsement of the SEAFMD Roadmap 2020 last year, the member countries started to revise their corresponding national plans in line with SEAFMD 2020. The RCU assisted member countries in the revisions of their respective national plans. Particular emphasis is given to examine the feasibility of achieving the targets set in the SEAFMD Consolidation Phase (2006-2010).

- The RCU introduced the STOP (Superior strategy, Technical capability, Organizational machinery, Political and stakeholder support) approach in winning the battle against FMD. The STOP approach was included in the capacity building of the National Coordinators during meetings and workshops. The emphasis of the discussions is to develop the National Coordinators to become effective disease control managers. With this approach, the campaign slogan “STOP FMD” is being promoted.

- The RCU continue to seek funding from other donors to support specific activities of the SEAFMD Campaign. The Australian Government through AusAID has agreed to provide funding to the Campaign from March 2009 to June 2011 in the amount of AUD 2,610,153. The New Zealand Government through the Ministry of Agriculture and Forestry has given in June 2008 an additional funding of NZS 350,000 to support SEAFMD programme.

- Collaboration with other animal health projects in the region continues. The RCU implemented joint activities with FAO/ADB in conducting outbreak investigation trainings, FAO risk analysis study in the northern part of Vietnam, AusAID SPS Capacity Building project for the control of FMD in the MTM zone, ACIAR understanding animal movement project in Cambodia and Laos, the AusAID/CARD project in Vietnam and the AusAID/FAO FMD eradication project in the Philippines.
Component 3: Public Awareness and Communications

Objective: To develop a communication approach/programme that allows for effective implementation of the SEAFMD programme

Achievements:

- The OIE SEAFMD Campaign Communications Workshop was held on 26 and 27 February 2008 in Manila, Philippines. The workshop conducted a preliminary gap analysis and considers how to introduce or refine communication systems for FMD. The workshop also examined the progress with the SEAFMD Communication objectives as well as how to strengthen SEAFMD approaches with recommendations in line with SEAFMD 2020 Roadmap. The two day workshop helps reinvigorate the momentum of communications and public awareness campaign in support to FMD control and eradication in South-East Asia.

- The SEAFMD Communication Plan has been updated and endorsed during the 14th Sub-Commission Meeting. The RCU continue to assist members in updating their national Communication Plans.

- Printed copies of SEAFMD newsletters continue to be published regularly, although the frequency has been changed to semi-annual. An electronic version of SEAFMD News was launched in September and is released bi-monthly. The SEAFMD Web site is regularly updated with latest news and other relevant information.

Component 4: Disease surveillance, diagnosis, reporting and control

Objective: To ensure that the necessary information required to understand the regional epidemiology of the disease is available to member countries

Achievements:

- FMD outbreaks are closely monitored to provide up-to-date information to members. The most common serotypes identified this year were serotype O of SE Asia topotype with some pockets of serotype A. It was observed that serotypes Asia 1, Cathay and Pan-Asia topotypes of serotype O which had been causing some outbreaks in the previous years, were not reported this year.

The total number of outbreaks and circulating serotypes in Vietnam continue to decline as compared with 2007. There were relatively increase of FMD outbreaks in Laos, all outbreaks due to serotype O. In Myanmar, slight increase was reported in Cyclone Nargis affected areas. Cambodia on the other hand, had seen a relative increase in the number and geographical distribution of outbreaks this year, clustering in the provinces nearby Phnom Penh and southern part of the country. Thailand experienced outbreaks of both serotypes O and A, with a noted increase and clustering in the north-eastern and southern parts of the country. Malaysia, particularly the peninsular states continue to incur outbreaks caused by serotype O but with significant reduction in Kelantan.

Indonesia remains an FMD-free country. The island states of Sabah and Sarawak in Malaysia also remain FMD-free. In the Philippines, the island of Luzon reported no outbreaks occurring since December 2005, and the rest of the country is maintained as FMD free without vaccination. Finally, in May 2008, Brunei has obtained recognition from OIE as an FMD-free country without vaccination.

- The RCU continue to strengthen the capacity of the SEAFMD members to conduct FMD surveillance and reporting. The manual on outbreak investigation was further refined to include concepts on why disease outbreaks occur and how to institute emergency control measures. RCU assisted in conducting trainings in the Northern part of Vietnam. Two trainings were conducted in Tanintharyi and Mandalay in Myanmar.

- The SEAFMD Epidemiology Network (EpiNet) Meeting was held in Manila, Philippines, on 16–17 February 2009, to discuss issues pertaining to FMD outbreak reporting. This activity was in compliance with the recommendation from the 14th Sub-Commission meeting. The EpiNet discussed ways to improved FMD reporting using online system of the OIE WAHIS and WAHIS Regional Core for ASEAN /ARAHIS.
The OIE Biological Standards Commission has accepted the application of the South-East Asia FMD Regional Reference Laboratory (RRL) in Pakchong, Thailand, as an OIE Reference laboratory for FMD. The applications will then be submitted during the OIE General Session in May 2009 for approval by the International Committee.

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

Objective: To ensure that animal health policies, standards and definitions are harmonised as much as possible, so that regional animal health security is assured.

Achievements:

- The 9th Meeting of the MTM Tri-State Commission was held on 30 June and 1 July in Bangkok, Thailand. Main discussion was how to progress the MTM Campaign towards a target of 2012 for freedom from FMD with or without vaccination. The challenges of the MTM Campaign were recognised in that the zone represents a major transit and destination point for livestock moving towards the high value markets of Peninsula Malaysia, bringing with it an on-going risk of disease incursions. A major concern is how to tackle the disease at the sources outside MTM zone. It was recommended to conduct a feasibility study of establishing an FMD control zone in the Central Myanmar Plateau, composed of Sagaing, Mandalay and Magway Divisions, a major source of livestock.

- The 8th Meeting of the Upper Mekong Working Group on Zoning for FMD and Animal Movement Management was held in Mangshi, Yunnan, PR China from 9 to 11 February 2009. Among the major outcomes of the meeting is the drafting of a comprehensive Strategic Plan for zoning of the Upper Mekong Region, taking into consideration individual countries’ national plans, in line with SEAFMD 2020 Roadmap. The MOU for the setting up of the Upper Mekong Commission was also endorsed by the meeting, and the next step is to get the approval of the DGs from the members.

- The 7th Meeting of the Lower Mekong Working Group (LMWG) for Foot and Mouth Disease (FMD) and Animal Movement Management was held on 6–7 November 2008 in Pakse, Laos. The meeting agreed to review the strategy of the LM zoning and examine the options to improve the strategy vis-à-vis the targets of the SEAFMD 2020 roadmap. It was emphasized that the consolidation phase until 2010 is critical to further progress to expansion phase starting 2011. It was also recommended to conduct more in-depth study to get a better understanding on livestock movement, particularly to identify major players in livestock trading. A need to improve outbreak investigations and reporting, as well as increasing the samples submitted to RRL was noted.

- The 5th Meeting of the Myanmar Zoning Working Group (MZWG) was held in Mandalay on 27–28 November 2008. Key outcomes of the meeting included the identification of Sagaing, Mandalay and Magway as priority areas for zoning, with a proposal for an expanded control and buffer zones. Other key issues discussed during the meeting, included: the role of the private sector in FMD control and livestock production; the importance of animal movements and understanding livestock marketing in Myanmar. The SEAFMD 2020 Roadmap Strategy was discussed and the potential for Myanmar Zones to be progressed in line with this strategic plan. A feasibility study is being developed by SEAFMD RCU to support the Myanmar zoning.

- The RCU is assisting member countries in reviewing and revising existing legislation on FMD control to better adapt with the needs in the field.
Component 6: Regional research and technology transfer

Objective: To identify research issues of importance to the SEAFMD programme and to facilitate participation of appropriate national and international research organizations in research and innovation through the national programmes

Achievements:

- A small study commissioned by SEAFMD and Australian Biosecurity-Collaborative Research Centre (AB-CRC) on identification and prioritisation of FMD research needs was conducted. The objectives of this study were to audit existing research and identify the most important remaining research gaps. The research gaps identified were classified into five major areas:
  - Understanding the market chains of different species and livestock products
  - Understanding the spatial and temporal distribution of FMD serotypes and its determinants
  - Define effective vaccination strategy and examine cost effectiveness of different vaccination strategies
  - Investigating the roles of different species in the epidemiology and transmission of FMD in SE Asia
  - Comparative studies on disease control management strategies (including policies, regulation) from different countries in SE Asia

- The RCU continue to link with other institutions/universities and encourage them to conduct researches on FMD in the sub-region. The SEAFMD RCU is supporting the research studies of six PhD students from SE Asian countries at Murdoch University doing researches on various aspects on FMD surveillance and epidemiology.

- The RCU assisted in developing research proposals for possible funding from WellCome Trust and USDA.

Component 7: Livestock sector development including private sector integration

Objective: To facilitate developments in the livestock sector that support disease control and optimise production, and integrate the private sector into national and regional animal health systems

Achievements:

- Dr Boonpeng Santiwattanatam from the Charoen Pokphand Food Company in Thailand, presented the outcomes of the private sector consultative meeting held in October 2007 at the 14th OIE Sub-Commission meeting. The presentation included key issues for the livestock industry including: animal movement patterns; industry benefits of controlling/eradicating FMD; available information sources on FMD; and measures taken by the private sector in preventing FMD. It was also stressed that cooperation between neighbouring countries should be encouraged in addressing the legal and illegal transboundary movements of livestock.

- A joint cooperation of the private sectors from Malaysia and Mymanar in collaboration with their respective Veterinary Services led to the construction of the Myeik Quarantine Station in Tanintharyi Division, Myanmar part of the MTM Zone. The station has the capacity to handle 1,000 cattle and is ready for operations in early 2009. Another Quarantine Station for goats has also been established in Yangon, and from this facility the first batch of 1,500 goats was exported to Malaysia in August this year.

- A Traders’ Meeting was conducted in the northern and central part of Thailand. The RCU presented the rationale of the SEAFMD Campaign and the Roadmap 2020, and the important role of the traders and other private sector in achieving the goals of the Campaign. The benefits of the FMD control and eradication was emphasized in this meeting. The DLD presented the current rules and regulations on animal movement. The participants discussed the current patterns of animal movement of cattle and buffalo, and recommended measures how to prevent spread of FMD along these movements.

- Several in-country consultations with the private sector, particularly with livestock traders, were held in Cambodia, Myanmar, Malaysia, Thailand and Vietnam. The role of livestock movement in FMD transmission was strongly emphasized in these meetings.
Component 8: Monitoring and evaluation

Objective: To establish an internal and external review audit process to monitor and evaluate achievement of defined programme outputs.

Achievements:

- The AusAID has contracted an Independent Review Team, through the AusReady facility, to review the AusAID Grant Funding to OIE SEAFMD Campaign. The review of the SEAFMD assessed the efficiency and effectiveness of the RCU; consider future roles, responsibilities and governance arrangements; and the applicability of the SEAFMD model to the management of other major diseases. The Review Team concluded that: “the SEAFMD has achieved international recognition as a model of excellence for regional coordination in animal health and in particular in Foot and Mouth Disease (FMD) control. RCU-SEAFMD is providing a highly effective coordination role built around a clear regional strategy – outlined in the SEAFMD 2020 Roadmap document - under which country activities can be planned and implemented in a way that ensures harmonisation, cooperation and working towards the shared vision.”

- The RCU submits to OIE monthly financial reports, annual reports to the Sub-Commission on FMD in South-East Asia (March), and the General Session in May.

- The Work Plan for 2008/2009 was endorsed by the 14th OIE Sub-Commission.

Recommendations:
IT IS RECOMMENDED THAT THE 15TH MEETING OF THE OIE SUB-COMMISSION:

1. NOTE progress with the implementation of SEAFMD Campaign Workplan for 2008/09
Appendix IV

COUNTRY REPORT
OF
CAMBODIA

Author and date: National Veterinary Research Institute, 6 March 2009

FMD situation in the country

From January to December 2008, a total of 42 outbreaks of FMD were reported in 13 provinces (Kampot, Kandal, Krong Preah Sihanouk, Kampong Speu, Battambang, Takeo, Siem Reap, Prey Veng, Koah Kong, Kracheh, Svay Rieng, Kampong Cham, and Krong Kep) (see map on next page). A total of 9,845 heads of cattle, 306 heads of buffaloes and 2,128 heads of pigs showed clinical signs of FMD and among that, 75 heads of cattle, 17 heads of buffaloes and 361 heads of pigs died.

- In January 2008, 1 outbreak of foot and mouth disease (FMD) was reported in Angkor Chey district, Kampot province and 36 cattle were sick. A total of 15 outbreaks of FMD were reported from different districts of six provinces: Kandal Steung, Koah Thom, Saang districts in Kandal province; Khan Prey Nob in Krong Preah Sihanouk; Phnom Sruoch, Kong Pisey, Oral, Borsedth, and Samrong Tong districts in Kampong Speu province; Moung Russei district in Battambang province; Tramnak, Prey Kabbas, Doun Keo districts in Takeo province; Chum Kiri and Chhuuk districts in Kampong province.

- In February 2008, a total of 2,483 heads of cattle, 51 heads of buffaloes and 324 heads of pig showed FMD clinical signs; and among that, a total of 12 heads of cattle, 1 head of buffalo and 106 heads of pigs died.

- In March 2008, 1 outbreak of FMD was reported in South Nikoum district, Siem Reap province; 73 heads of cattle showed clinical sign of FMD.

- In April 2008, 2 outbreaks of FMD were reported in Samlout district, Battambang province; 906 heads of cattle, 35 heads of buffaloes and 401 heads of pigs showed FMD clinical signs and among that, 6 heads of cattle and 40 heads of pigs died.

- In May 2008, 1 outbreak of FMD was reported in Ba Phnum district, Prey Veng province; 533 heads of cattle, 28 heads of buffaloes and 476 heads of pigs showed FMD clinical signs and among that, 16 heads of cattle and 84 heads of pigs died.

- There was no FMD outbreak in June 2008.

- In July 2008, 5 outbreaks of FMD were reported from different districts such as Kean Svay district, Kandal; Kampong Seila district, Koah Kong; Kracheh district, Kracheh; Rum Doul and Svay Chrum districts, Svay Rieng provinces caused 1,286 heads of cattle, 41 heads of buffaloes and 290 heads of pigs were shown FMD clinical signs and among that 7 heads of cattle and among that, 45 heads of pigs were dead.

- In August 2008, 2 outbreaks of FMD were reported in Krang Yov district, Kandal and Chhok district; 157 heads of cattle and 40 heads of pigs showed FMD clinical signs and among that, 5 heads of pigs died.

- In September 2008, 1 outbreak of FMD was reported in Bathey district, Kampong Cham province; 75 heads of cattle and 20 heads of buffaloes showed FMD clinical signs.

- In October 2008, 8 outbreaks of FMD were reported from different districts such as Samrong Tong, Baseth, Odong, Kong Pisei, Oral and Phnom Sruoch districts, Kampong Speu province; Kean Svy district, Kandal province; and Chholung district, Kracheh province; 1,128 heads of cattle and 39 heads of pigs showed FMD clinical signs and among that, 4 heads of pigs died.

- In November 2009, 4 outbreaks of FMD were reported in Ponhea Leu and Ang Snuol districts, Kandal province; Dang Tong district, Kompot province; Kamchay Mea and Me Sang districts, Prey Veng province; and Damnak Chanleu district, Krong Kep. A total of 3,168 heads of cattle, 131 heads of buffaloes and 558 heads of pigs showed FMD clinical signs and among that, 34 heads of cattle, 16 heads of buffaloes and 77 heads of pigs died.

- No FMD outbreak was reported in December 2008.
Report on achievement of objectives of the SEAFMD Campaign

Component 1: International co-ordination and support

In working close cooperation with SEAFMD of OIE and member countries, Cambodia foresees an effective FMD control campaign through strengthening FMD Surveillance and Information System, controlling animal movement and accreditation of veterinary services.

DAHP is seeking support from AusAID, JICA, ACIAR, OIE, FAO, EC, and other bilateral support in the area of animal health research and support to veterinary services to protect the national herds and flocks from the intrusion of disease, protect consumer health and facilitate trade.

Component 2: Programme management, resources and funding

It is the management of animal health issues in conjunction with the Animal Production Services (APS) to underwrite the investment risk in livestock production. The focus of these activities is mainly on the village sector where the majority is held and by marginal improvement in animal productivity nationally would result in growing demand for livestock products.

The disease risk management function that is being put in place is to manage animal health at the village production level and support the Animal Production Service in developing sustainable livestock production (SLP). This programme is expected to improve the productivity and provide a degree of certainty over profitability to the farm gate. In order to achieve this function it is necessary to strengthen the national and international coordination and cooperation to ensure the technical requirement in place.

To undertake this Animal Disease Risk Management, DAHP is seeking for support in the following areas:

b. Veterinary Law and Disease Control Legislation Development
c. Disease Control Programme

Component 3: Public awareness and communications

3.1 FMD Public Awareness

In working in close cooperation with local media, DAHP sent the OIE press release to be published in one local national language newspaper, Cambodia Daily, Cambodge Soir and a Chinese language newspaper. The FMD outbreaks have become a media’s interest in Cambodia. The awareness activities are also carried out by the provincial animal health officers and village animal health workers through farmer training and brochures. We worked with the SEAFMD Campaign to develop a poster that was distributed to farmers at the provinces (see pictures pp 68-69). SEAFMD provide fund to produce 10,000 leaflets, 20,000 sticker and 4,000 and DAHP also produce poster 10,000 PCS, leaflet 15,000 leaflets and new “Super Cow” sticker 5,000 PCS. In January 2009, DAHP received FMD vaccines of 10,000 doses from SEAFMD.

3.2 Linkages within the Department of Animal Health and Production

The Epidemiology Unit has performed update analysis and disease outbreak monitoring. This unit has direct communication links with the provincial officers and through them to the district veterinary service sectors. This reporting channel is being developed under DAHP structure that link the district to province and province to the central monitoring and evaluation unit.

3.3 Education

The two major ecosystems of Cambodia from an animal production viewpoint are the lowland Mekong basin area and the highland. The highland offers a potential for stratification of a cattle industry and the high cropping zone of the plains a fattening potential for both pigs and ruminants.

Component 4: Disease surveillance, diagnosis, reporting and control

Under IFAD Loan 432 KH, the following actions have been allowed to be taken to date in terms of diagnostic service and disease surveillance:

- Initiating the field surveillance and reporting programme with close operational links with the managing agent (DAHP);
- Technical upgrading of the National Veterinary Diagnostic Laboratory by construction of a specialized National Animal Health and Production Investigation Center (NAHPIC) within a secure setting in Phnom Penh;
NAHPIC can facilitate routine and the additional surveillance programmes to maintain disease surveillance and monitoring of animal diseases WTO accreditation;

- Is to establish an Epidemiological Unit (EU) with the linkages communications and technical support facilities to acquire the information pertinent for policy development, trade accreditation and international reporting associated with animal health and production matters;
- Provision of funds to undertake a feasibility to analyze drugs and vaccines in tissues and residues;
- The National Animal Health and Production Investigation Centre (NAHPIC) was upgraded to National Veterinary Research Institute (NaVRI) in August 2007.

From 5 to 10 November 2007, the National Veterinary Research Institute (NaVRI) of the Department of Animal Health and Production (DAHP) in collaboration with the OIE SEAFMD Regional Coordination Unit and ADB/FAO Project, organized a series of training sessions for Provincial and District Veterinarians in each of the eight Provinces included in the Lower Mekong Control Zone in Cambodia. The purpose of the training was the investigation of outbreaks of transboundary animal diseases, with a focus on FMD, HPAI and CSF (see pictures pp 68-69).

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

The Ministry of Agriculture, Forestry and Fisheries (MAFF) envisages that the Animal Health Services (AHS) is lead division for animal health and production matters. The objectives, within the AHS are to protect the national herds and flocks from the intrusion of disease, protect consumer health and facilitate trade. Its function is to limit animal health risks by the ready access of livestock owners to an adequately trained livestock service provider that is linked closely to and managed by the Provincial Office of Animal Health and Production.

The credibility of the AHS depends on the development of adequate and enforceable disease control legislation, animal disease surveillance and the implementation of strategic and transparent health programmes. Having achieved the forgoing together with quality assurance over processing it then becomes possible for Cambodia to exploit its natural resources through livestock production and enter the more lucrative regional export markets.

The livestock development has been foreseen as potential livelihood in the rural area for improving nutrition and income generation. Providing opportunities for the development of smallholder fits well with the government policy for Food Security and Poverty Reduction through supporting services for livestock owners in animal husbandry, disease prevention, credit and marketing. A medium and long term approach is the privatization of the animal health and production technology and service sectors, which are to managed and coordinated at the provincial and national level by DAHP with a mandate of all stakeholders’ beneficiaries nationally and internationally (National Strategic Plan for Animal Health and Production, DAHP 2000).

Satisfying the long-term development, DAHP will be focusing its attention on the following goals to:

- Improve animal health and production services
- Improve the rural income
- Improve quality and productivity of livestock
- Strengthen legislation and livestock trade

**Component 6: Regional research and technology transfer**

- Understanding of the effectiveness of the vaccination on ND, FMD and CSF in 4 target provinces of SLPP project
- Studying and understanding livestock movement, by developing an information network and reporting system (ACIAR)
- Study of retrospective movement data

FMD antigen (A, O, Asia 1) and anti-serum control (C++, C+, C-) from Pak Chong, Thailand were used for FMD antibody testing. The following results were obtained.
Number of samples and results before vaccination

<table>
<thead>
<tr>
<th>Province</th>
<th>Type O</th>
<th>Type A</th>
<th>Type Asia1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of samples</td>
<td>Antibody positive</td>
<td>Number of samples</td>
</tr>
<tr>
<td>Kampong Speu</td>
<td>50</td>
<td>26</td>
<td>50</td>
</tr>
<tr>
<td>Kampong Chhnang</td>
<td>51</td>
<td>23</td>
<td>51</td>
</tr>
<tr>
<td>Takeo</td>
<td>55</td>
<td>3</td>
<td>55</td>
</tr>
<tr>
<td>Pursat</td>
<td>50</td>
<td>18</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>206</td>
<td>70</td>
<td>206</td>
</tr>
<tr>
<td>% positive (average)</td>
<td>33.98</td>
<td>58.74</td>
<td>10.20</td>
</tr>
</tbody>
</table>

In all provinces antibody positive cattle for all three tested serotypes were found in the blood samples taken before vaccination. Possibly as result of previous FMD outbreaks, the information in relation to this obtained from the Chief OAHP Kampong Speu gives following although rough situation of FMD outbreaks over the past three years in the province. 2006 has been the year with the highest number of outbreaks. Outbreaks had been reported from June till December 2006.

Number of samples and results after vaccination

<table>
<thead>
<tr>
<th>Province</th>
<th>Type O</th>
<th>Type A</th>
<th>Type Asia1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Samples</td>
<td>Antibody Positive</td>
<td>Number of Samples</td>
</tr>
<tr>
<td>Kampong Speu</td>
<td>50</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>Kampong Chhnang</td>
<td>50</td>
<td>43</td>
<td>50</td>
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<tr>
<td>Takeo</td>
<td>50</td>
<td>33</td>
<td>50</td>
</tr>
<tr>
<td>Pursat</td>
<td>50</td>
<td>42</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>158</td>
<td>200</td>
</tr>
<tr>
<td>% positive average)</td>
<td>79.00</td>
<td>93.00</td>
<td>86.50</td>
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</tbody>
</table>

The blood samples tested after the vaccination campaign showed an increase in antibody positive animals compared to the situation before the campaign.

- Out of 158 O positive samples, 118 (74.68%) are protective with a titer of 1/80.
- Out of 186 A positive samples, 134 (72.04%) are protective with a titer of 1/80.
- Out of 173 Asia1 positive samples, 145 (83.81%) are protective with a titer of 1/80.

Number of antibody positive samples before and after vaccination by serotype and by province

![Number of antibody positive samples before and after vaccination](image-url)
Transboundary animal diseases, foot and mouth disease and classical swine fever in particular, are permanent threat for livestock keepers with major economic implications through the costs of outbreaks and measures taken in order to prevent or control infection and disease outbreaks (Otte, 2004), and are endemic for many decades and pose the greatest threat to the poor livelihood in the lower Mekong basin.

A longitudinal study of Foot and Mouth Disease and Classical Swine Fever in southern provinces of Cambodia has conducted in two provinces (Takeo and Kampong Speu). The objectives of this study are to provide information on the patterns of FMD and factors contributed to the occurrence of FMD in the southern provinces of Cambodia which can be obtained by conducting the longitudinal study of the disease in cattle, buffalo and pigs.

Component 7: Livestock sector development including private sector integration

On 26 November 2007, the Department of Animal Health and Production, with the collaboration from SEAFMD Campaign and OIE, organized a meeting with traders and other stakeholders. The purpose of this meeting is to facilitate developments in the livestock sector that support disease control and optimise production, and integrate the private sector into national and regional animal health systems.
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<tr>
<th>គុសំប្លុក</th>
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<tr>
<td>ទឹក</td>
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</table>
COUNTRY REPORT OF INDONESIA

Indonesia declared its freedom from foot and mouth disease (FMD) in 1986 and it was recognized by OIE in 1990. In order to maintain the free status of FMD, control programme implemented is mainly focused on surveillance, emergency preparedness and public awareness. The following aspects are reported:
- International co-ordination and support;
- Programme management, resources and funding;
- Public awareness and communications;
- Disease surveillance, diagnosis, reporting and control;
- Policy, legislation and standards to support disease control and zone establishment;
- Regional research and technology transfer;
- Livestock sector development including private sector integration; and
- Monitoring and evaluation.

FMD situation in the country

Indonesian freedom from foot and mouth disease (FMD) was recognized by OIE in 1990. The programme to maintain the free status of FMD is mainly focused on surveillance, emergency preparedness and public awareness.

Report on achievement of objectives of the SEAFMD campaign

Eight components of SEAFMD strategic plan implemented by Indonesia are summarized as follows.

Component 1: International co-ordination and support

Indonesia has been participating in a number of meetings of FMD as well as other Transboundary Animal Diseases in South-East Asia

Component 2: Programme Management, resources and funding

Indonesia has agreed to contribute a total amount of USD 300,000.00 to be paid for 6 years at USD 50,000.00 starting from 2006.

Component 3: Public awareness and communications

Internally, Indonesia has been prepared an Handbook of FMD as well as INDOVET plan on FMD and distributed to the target persons/institutions. However, its implmentation in the field has yet to be determined. A simulation of outbreak is needed for Indonesia. Externally, Indonesia has attended Communications Workshop, and a communication person has been proposed.

Component 4: Disease surveillance, diagnosis, reporting and control

In the financial year of 2009, until the end of February, the National Centre for Veterinary Biologics (Pusvetma) in Surabaya have not yet collected serum samples from targeted areas.

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

A new Act is now on the final step to be approved by Legislative. The Act will replace the Act no. 6 year 1967 regarding Animal Husbandry and Animal Health. INDOVET Plan of FMD will be revised and internalised within local government both Provincial and District Government.

Component 6: Regional research and technology transfer

Applied research was initiated by the Indonesian Research Centre for Veterinary Science (BBALITVET). Other research activity is conducted as part of degree studies in collaboration with Australia.
Component 7: Livestock sector development including private sector integration

The involvement of private sectors sectors for disease control is obvious. A number of private companies have been participating on HPAI controls. It shoud also be working for FMD.

Component 8: Monitoring and evaluation

Internal monitoring and evaluation (MONEV) of overall animal health programme are mainly conducted by routine MONEV activities by DGLS and Provincial as well as District Livestock Services. External assessment of veterinary services in Indonesia has been conducted by OIE on the PVS programme.
**FMD situation in the country**

In Lao PDR, FMD is endemic, in 2008, a total of 36 FMD outbreaks were reported in 68 villages in 4 provinces. All FMD cases were confirmed for the presence of FMD virus serotype O antigen. One outbreak occurred in a new area where it was no reported of FMD since 2002. Control measures, including declaration of the outbreak, sample collection and testing, strict control of animal movement, ring vaccination, treating the sick animals, were carried out.

In 2008, a total of 36 FMD outbreaks were reported in 68 villages in 4 provinces in Lao PDR. 69 diagnostic samples were supplied to the laboratory of which 41 (59.42%) were positive for the presence of FMD Type O antigen. Most outbreaks (22) were mostly distributed in Vientiane Capital.

Overall, the total number of animals affected with FMD was 2,595, approximately 50% less cases than reported in the previous year. FMD outbreaks in 2008 appear to be a result of a continuation from the previous year in Vientiane and Xayabouly provinces, the causative agent being FMD type O.

In April FMD outbreaks were reported in 86 slaughter pigs in two slaughterhouses in Sikhottabong district Vientiane Capital. Samples from the infected pigs were sent to laboratory, which result was positive with type O antigen. The infected pigs were slaughtered and destroyed. The outbreak began in result of the illegal movement of pigs of same trader supplied to both slaughterhouses.

In October, an outbreak of FMD was occurred in new area in Boten Kao village, Namtha District Luangnamtha province, where there is no report of FMD since 2002. The origin of the outbreak was unclear, but there is suspected of movement of cattle and buffalo from Bokeo province, however there was no evidence of infection in those animals.
Report on achievement of objectives of the SEAFMD campaign

Component 1: International co-ordination and support

The following summarizes the activities of related projects, which are working on FMD control programme in Lao PDR over the last year, as follows:

OIE/RCU
- DLF participants attended the 14th OIE Sub-Commission in Hanoi, Vietnam.
- DLF in collaboration with RCU SEAFMD organized the 7th Meeting of the Lower Mekong Working Group for Foot and Mouth Disease and Animal Movement Management which was held in Pakse, Lao PDR, on 6-7 November 2008.
- Participation in the 8th Meeting of the Upper Mekong Working Group on Zoning for FMD and Animal Movement Management, FMD EpiNet workshop, PSVS workshop and Veterinary Legislation workshop.

ACIAR
- ACIAR project AH/2003/001 Management of CSF and FMD in Lao PDR. The project focuses on the sample collection and testing and supply of reagents.
- ACIAR project AH/2006/025 Understanding livestock movement and the risk of spread of transboundary animal diseases: data collection on animal movement and risk related factors for spreading of animal diseases.

TICA and Lao-Thai bilateral cooperation
- Lao PDR has and Thailand have implemented TICA project on strengthening of diagnostic capability and disease surveillance in Champasak province, under this project two of Lao staffs had been trained on FMD diagnosis in Thailand, dispatch of experts and supply of laboratory equipments, reagents and vaccines.

JICA phase II
- Strengthening of disease surveillance capability in Savannakhet province by training of district staff and VVWs.

FAO Project
- Lao PDR received support reagents for FMD diagnosis donated from FAO through RRL and this kind of support will continue in the future.
- Under FAO/AI projects have been organized training course for VVWs, these VVWs can be work as FMD surveillance network.

Bilateral cooperation
- Regional cooperation has been placed as a high priority for FMD control in Lao PDR, these are the collaboration projects between the governments of Lao PDR and Thailand, Lao PDR and Vietnam as well as Yunan province of China. Every year between Laos and those countries had organized annual meeting to develop and implement pilot control strategies, to discuss cooperation policies in possible future trading opportunities and the reduction in illegal animal trading and FMD control programmes along common borders.

Component 2: Programme management, resources and funding

National Animal Health Centre (NAHC), Department of Livestock and Fisheries (DLF) is responsible for promoting animal health and controlling animal diseases. In order to follow up the action plan of SEAFMD the Lao PDR has gradually participated in the collaboration and co-operation with the neighbouring countries in the region and with international agencies. Due to the Lao government has quite limited national budget resources for the financial support of FMD control activities; therefore the need for supporting from donor agencies in the form of bi-lateral or regional veterinary services projects is essential.

Component 3: Public awareness and communications

The strengthening communication and enhancing public awareness in FMD control programme among stakeholders play important role for effective implementation of FMD control programme. The Department of
Livestock and Fisheries is the principal government agency in the country being responsible for all aspects of animal health and animal production. During this year several activities were taken such as:

- Before undertaking an emergency or regular vaccination programmes (HS and FMD), the farmers, administrators, Village Veterinary Workers, civil authorities and local animal health authorities were educated about the negative impact of FMD on livestock production and rural agricultural development. On this occasion visual aids were used. (i.e. brochures, posters, videos on animal disease).
- When an outbreak occurred, the Ministry of Agriculture and Forestry notified the local authority to take measures forbidding animal movement from epidemic or control zone to other areas. At the same time the media were informed about the animal movement restrictions, animal health care and if there were any problems how to contact to the animal office.
- Strengthening and upgrading the knowledge of checkpoint staff in order to inspect the disease control work.

**Component 4: Disease surveillance, diagnosis, reporting and control**

FMD surveillance during the year 2008 mostly is passive based on the disease reporting system. During the period of an outbreak, field sample collection and testing in the laboratory is performed. Furthermore emergency ring vaccination campaign has been performed. 10 000 doses of FMD were supplied from DAH, Vietnam under bilateral agreement, these vaccines had been used to vaccinate in Vientiane capital, Xayabouly and Champasak provinces.

The Lao Government has establish the reporting system throughout the country, and networking the information system from central to grass root level, but during the implementation of national animal health information the following constraints and problems have been experienced most widely:

- Poor of reporting and information system this means that some times the reports from the field are often received too late, some times with a delay of 2 or 3 months.
- There is a limited human resource in veterinary services and limited field visual materials as well as financial resources to support the launching of animal health information to target audiences.
- Farmer knowledge on economic effect of FMD is still limited.

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

- Veterinary and Livestock Law has been approved the National Assembly in July 2008 and is coming to force.
- Prime Minister Decree on Animal Disease Control in the Lao PDR 2007.
- Prime Minister Decree on Animal Movement Management in the Lao PDR 2007.
- Prime Minister Decree on Meat Inspection in the Lao PDR 2007.
- National strategic plan for FMD control in the Lao PDR, DLF 2004 now being review.
- Establishment of FMD control zones, the MOU of UMZ commission is under process to get approval from MAF.

**Component 6: Regional research and technology transfer**

ACIAR projects:

- ACIAR project AH/2003/001 Management of CSF and FMD in Lao PDR. The project focuses on the sample collection and testing, supply of reagents.
- ACIAR project AH/2006/025 Understanding livestock movement and the risk of spread of transboundary animal diseases: data collection on animal movement and risk related factor for spreading of animal diseases.

In collaboration with SEAFMD and Murdoch University:

- A first sample collection was carried out in September 2008. A total of 187 serum samples, 187 saliva samples and 187 probang samples were collected from buffaloes in two FMD outbreak villages, and 1 non outbreak village area in Pakgum district, Vientiane Capital. The samples were sent to Pirbright Laboratory.
- A second sample collection will be carried out in May 2009.
Component 7: Livestock sector development including private sector integration

Currently DLF implements two projects:

- LDP project is loaned and grant project to support and help poorest former in 5 provinces in the northern region of Lao PDR.
- Lao-EU project is a second phase of livestock support project in 5 provinces in the northern region of Lao PDR.

Activities of both projects are to promote and improve livestock production and marketing.

Component 8: Monitoring and evaluation

- Emergency report in case of new outbreak.
- Monthly report from PAFO to NAHC, DLF.
- Submission SEAFMD monthly outbreak reports.
COUNTRY REPORT OF MALAYSIA

FMD situation in the country

FMD is a notifiable disease in Malaysia. As such, there is a national control and eradication programme and annual federal budget provided by the Ministry of Agriculture and Agro-Based industry for implementation of control and eradication measures.

FMD continues to be of major concern in Peninsular Malaysia. The States of Sabah and Sarawak are free of FMD. However, in Peninsular Malaysia outbreaks of FMD increased in 2008. There was better reporting of FMD outbreaks. The new livestock importation policy was to enable to meet the shortfall in the importation from Australia and have better risk management measures for live animal imports from Thailand. Even though the new strategy for control and eradication of FMD has tremendously reduced the illegal movement of live animals across the border, there were still cattle that were illegally brought into the country causing outbreaks. Another factor contributing to the increase is the endemic status where the disease spread laterally due to illegal movement within the country. Peninsular Malaysia is now considered endemic for FMD as confirmed cases have been reported throughout the Peninsular. FMD serotype O (52%) is still the most common isolate and to a lesser percentage (3.4%) serotype A. Diagnosis for FMD is done at the National FMD Laboratory in Kota Bharu, Kelantan. The main constraints were in the control of illegal movement of animals and the late reporting of FMD cases. Animal health and Veterinary measures related to FMD control include strategic vaccination, legislation, disease investigation, surveillance and reporting. Also the DVS has decided and is working towards tagging all imported animals with RFID tags as well as animals in the MTM control zone. These will enhance the traceability of animal movements. A committee was formed to study an effective public awareness campaign.

Report on achievement of objectives of the SEAFMD campaign

Component 1: International coordination and support

For international support trade and transparency are important. This has been done through our website and disease reporting mechanisms. Prior to import of live animals from neighboring countries, risk analysis and recommendations for mitigation measures was done. This was realized through reviewed import-export protocols. Attended the 14th Sub-Commission Meeting in Hanoi, Vietnam, the MTM Contol Zone Meeting in Thailand and the SEAFMD National Coordinators meeting.

Component 2: Programme Management, Resources and Funding

The new national control and eradication strategy was approved. The annual budget was used to control FMD. Proposal for a budget for the implementation of this strategy was completed. All FMD diagnosis was done at the National FMD laboratory at Kota Bharu.

Component 3: Public Awareness and Communication

Public awareness and communication is a continuous activity. There has been ongoing meeting with farmers/ investors mostly at district levels. Pamphlet distribution was done during vaccination campaigns and seminars. Also seminars on the roles of farmers/ traders towards FMD control were held at State levels. Attended OIE SEAFMD campaign communication workshop held in Manila, Philippines.

Component 4: Disease surveillance, diagnosis, reporting and control

The Epidemiology section for disease surveillance and reporting undertook an epidemiological study of outbreaks in 2008. The most common serotype identified were serotype O and to a lesser percentage serotype A. The topotype for serotype A was Asia and results are pending for serotype O. The study also identified critical nodes related the outbreak. Attended the EPINET meeting during the MTM control zone meeting in Thailand.

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

Our Animal health policies include vaccination, legislation, emergency preparedness and public awareness. The Animal Ordinance 1953 (Revised 2006) is the main legislation related to animal health including disease control.
Participated in the SEAFMD Freedom Campaign in addition to the MTM Control Zone campaign. The new FMD control and eradication strategy is aimed to achieve FMD free status with vaccination by 2015.

Component 6: Regional research and technology transfer

The development of the FMD Rapid Diagnostic Kit is in progress. Collaboration with the Faculty of Veterinary Medicine, UPM – Dr Siti Ramanoon, Masters Programme Student on the epidemiology of FMD outbreaks relating to animal movements. Another staff of the DVS, Dr Faizah, is pursuing post graduate studies on molecular epidemiology study of the serotypes isolated in Malaysia. Collaboration with EpiNET is continuing.

Component 7: Livestock sector development including private sector integration

Veterinary services of Malaysia and Myanmar collaborated with their private sectors to facilitate trade of livestock e.g. construction of quarantine stations and yards in Myanmar, testing for diseases (e.g. FMD, brucellosis, tuberculosis). The National Feedlot Centre (NFC) is being developed as a supplier of feeder cattle to the feedlot industry. This is to cater for the increased demand for beef. The plantation based companies (integrated livestock farming in oil palm plantations) have been identified to increase in the breeder population with support from funds available from the Livestock Development Breeding Programme to purchase these breeders.

Component 8: Monitoring and evaluation

Monitoring of vaccination in strategic areas and vaccination of all imported animals. There is regular reporting to ARAHIS and to the OIE. There was also internal meetings to evaluate the control programmes by the Epidemiology section.
COUNTRY REPORT
OF
MYANMAR

In the Union of Myanmar, there are four important diseases among cattle and buffaloes such as FMD, haemorrhagic septicaemia, black quarter or black leg and anthrax. Among these, FMD is recognized as the only contagious disease of high incidence and caused disturbances especially in agriculture and livestock sector development.

The Government of the Union of Myanmar places high priority on the need to develop the potential for increased agricultural production. The livestock production is of utmost importance to meet national requirement for draft animals, meat, and milk and animal products. The health and productivity of the draft animals at this critical period in agricultural activities are thus vital in the achievement of optimum crop production and yields.

According to the Livestock Breeding and Veterinary Department (LBVD), Myanmar's livestock population in 2007-08 was approximately 12.9 million cattle, 2.9 million buffaloes, 7.7 million pigs and 3.1 million sheep and goats.

FMD situation in the country

FMD outbreaks have been recorded in all states and divisions of the country. Type O was responsible for all of the outbreaks. In 2007 a total of 17 outbreaks of FMD occurred in 8 States and Divisions. In 2008 a total of 11 outbreaks of FMD occurred in 6 State and Divisions. Unfortunately there have been FMD outbreaks in buffaloes in Cyclone Nargis affected area. A total of 325 cattle and buffaloes were infected by FMD virus type 'O'.

In January-February 2009, there were 2 outbreaks in Magway and Yangon Divisions.

Report on achievement of objectives of the SEAFMD campaign

Component 1: International coordination and support

LBVD, Myanmar is committed to support the OIE SEAFMD in coordinating the Malaysia-Thailand-Myanmar (MTM) campaign programme for FMD control among ASEAN countries. OIE RCU donated 5,000 USD for FMD Campaign in Nargis affected area. LBVD used those support for outbreak investigation, sample collection and public awareness activities for FMD control.

JICA Phase II has been signed on 28 December 2007. This project is for the development of Mandalay regional laboratory and neighbouring regions for disease control measures. By the agreement of LBVD, Myanmar and Yunan Agriculture Department, PR China, two animal disease monitoring laboratories will be established at Myitkyina in Kachin State and Lashio in Northern Shan State. Laboratory buildings were constructed by Myanmar and laboratory equipments, media, chemicals, reagents and staff-trainings were provided by China. This bilateral cooperation programme was signed at Muse Township in Northern Shan State on 8 November 2007.

Under FAO Technical Cooperation Project TCP/MYA/3201 (D) 'Dairy Cattle Improvement' project has been signed at Naypyitaw on 29 January 2008.

IAEA agreed to provide the project 'Strengthening the National Capacity for the production of FMD vaccines' in 2008.

LBVD received the support for HPAI prevention and control through FAO. FAO Avian Influenza Control Programme was established with the support of those projects. This programme is implementing two projects. AHI facility of World Bank provided USD 1.3 million for HPAI Prevention and Control and USAID Phase III provided USD 0.75 million. This programme received the support until 2011.

Component 2: Programme management, resources and funding

LBVD is the responsible organization to undertake the management of national FMD control programme in Myanmar. It has a countrywide network of veterinarians in 17 States and Divisions, 63 districts and 281 townships. At present, 900 veterinarians, 184 veterinary assistants and 137 staff of animal health assistants are...
taking care of animal health and control activities. The budget allotment for FMD control has been increased year by year by the Government of Myanmar. FMD laboratory produce yearly about 150,000 doses of monovalent FMD vaccine for cattle, buffaloes, sheep, goats and pigs. New quarantine station and pre-quarantine station have been established in Thilawa and Myeik for exportation of live animals.

Component 3: Public awareness and communication

The main objectives for Public Awareness and Communication Programme are to receive early information for FMD outbreaks, for prompt reaction and to participate in disease control procedures by all stakeholders. LBVD conducted workshops and seminars on animal health and disease control for in-service personnel, farmers and livestock owners.

OIE RCU and SPS CBP (AusAID) contributed for public awareness programme at Tanintharyi Division (MTM) in 2004 and 2005. LBVD continued the public awareness programme at MTM area in 2007 and 2008 and issued timely notification of FMD through public media such as daily newspapers, radio and television programme especially on the onset of monsoon.

Component 4: Disease surveillance, diagnosis, reporting and control

In 2008, Dr Polly Cocks Kethrine Louise, OIE RCU, Bangkok, Thailand and FMD laboratory team collected 186 serum samples and made interviews for FMD investigation with farmers and livestock owners at Myeik, Dawei and Yephyu townships in Tanintharyi Division.

In 2008, a total of 11 outbreaks in 6 States and Divisions were occurred, 579 cattle and buffaloes were affected. Only 16 samples were received from the field outbreaks and 4 samples had been submitted to RRL Pakchong for confirmation of the results and only type O was detected.

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

Myanmar is fully participating with other countries in FMD control activities. Animal Health and Development Law enacted in 1993 and in 1999 rules and regulations were issued to exercise the law.

Upper Mekong Working Group

− The two delegates of Myanmar attended to the 8th Meeting of the Upper Mekong Working Group (UMWG) on FMD Zoning and Animal Movement Management held at Manshi, China. Tachileik and Mong Young and Mongphyat townships of Eastern Shan State were involved in UMWG as a buffer zone.

Malaysia - Thailand - Myanmar (MTM) Peninsular Campaign for FMD Freedom

− Director General and two delegates of LBVD, Myanmar attended the 9th Meeting of the MTM Peninsular Campaign for FMD Freedom held from 28 June to 3 July 2008 in Bangkok, Thailand. The outcome of the Meeting is to promote the zone status of Myanmar, from control zone to eradication zone, buffer zone to control zone and infected zone to buffer zone.

Sagaing Zoning Approach

− Myanmar emphasized to Sagaing Division for FMD control measures. The Sagaing Division is the highest population of the cloven hoofed animals in Myanmar and animal movement was only outwards direction. Myanmar Zoning Working Group Meeting was held on 27-28 November 2008.

Component 6: Regional research and technology transfer

LBVD has supported the research and collaboration with international organizations. Myanmar attended regional workshop of the SEA FMD laboratory network in 2008. Dr Kyi Mar Aung attended the EpiNet meeting on 16-17 February 2009 in Manila, Philippines.

Dr Blesida C.Verin, Murdoch University, Australia visited Myanmar for the research on field investigation of the previous and current FMD outbreaks in areas endemic of FMD in September 2008. She collected each 221 samples of serum, saliva and probang from the buffaloes in Ayeyarwaddy and Yangon Divisions.

Dr Polly Cocks, OIERCU visited Myanmar to conduct a field study on the social networks of livestock marketing chains and animal movements and a feasibility study for establishing an FMD zone in Central Myanmar. She visited and discussed with the traders, middlemen and farmers in livestock markets of Mandalay and Sagaing Divisions.
Dr Polly Cocks also visited Myanmar to conduct outbreak investigation training sessions in Myeik of Tanintharyi Division and Mandalay of central part of Myanmar. A total of 63 veterinarian staff have been trained for outbreak investigation of infectious diseases.

Component 7: Livestock sector development including private sector integration

Myanmar Livestock Federation (MLF) is represented by livestock owners, producers, livestock traders at central, states and Divisions, Districts and up to townships level. Under the control of MLF, swine producer association, dairy farm association, animal health product association and milk product association are organized. The activities are included reporting the occurrence of FMD as well as sample submission to FMD laboratory. Seven livestock zones were established in three townships near Naypyitaw. The area is about 6,733 acres and dairy cattle, sheep, goat and poultry are farming in these zones. The Ministry of Livestock and Fisheries paid a loan of about 364.4 million kyats to goat breeding farmers for the development of livestock sector in 2007-08.

Component 8: Monitoring and evaluation

The LBVD monitors all disease control programme including FMD and new emerging diseases. FMD laboratory submitted the monthly report to OIE and country report to annual meeting of OIE Sub-Commission. LBVD submits technical and inspection teams throughout the country to check the disease control programme. LBVD evaluation meeting is held in every four months interval and annual meeting is held at the end of the year to plan the strategies for the next year.
COUNTRY REPORT
OF
THE PHILIPPINES

FMD situation in the country

The Philippines has been without clinical cases of foot and mouth disease (FMD) for the last 39 months to date.

It is now in the process of applying recognition from OIE of its free status. The campaign is gearing its effort on the preparedness mode. The monitoring of establishments and all other strategies previously employed is still in place. Disease monitoring and surveillance; public awareness; animal movement management and vaccination (limited areas in Luzon).

A swill feeding survey was also just recently undertaken assessing the knowledge, attitude and practices of farmers in the country particularly Luzon. Its result showed a high level of awareness of farmers on FMD matters and has clearly shown the significant level of understanding on proper preparation of swill and the low level usage.

Clinical surveillance of high risk establishments especially abattoirs are still ongoing and have been fully delegated to local government units’ veterinary offices, the grass root implementers of the programme.

Report on achievement of objectives of the SEAFMD campaign

Component 1: International coordination and support

Philippines’ FMD Eradication Programme follows a new set of project document as a result of the renewed assistance of the AusAID through FAO, which took effect on February 2008 to September 2009.

The funding assistance have made significant development particularly focusing on the areas of the last frontier of the FMD virus in Central Luzon (Region III), Metro Manila (NCR) and Southern Tagalog (Region IV-A) or collectively known as Zone 2 in the recently submitted application to OIE for Luzon FMD-freedom.

The country actively participates in the international meetings and trainings in relation to animal health not exclusive of FMD to gather insights that will further hone technical skills of the BAI staff involved in implementing animal health programme and most especially to be part of a global approach to control disease at source, particularly zoonotic diseases.

Component 2: Programme management, resources and funding

Since the cessation of FMD outbreak in 2006, the management focused on activities that will help local counterpart implementers in sustaining FMD-freedom in their respective provinces. Funds also have already been allotted to each DA-Regional Field Unit, which in turn will supervise disbursement of fund for FMD-related activities.

The management also ensures the availability of the necessary laboratory supplies that will subsequently ensure support of the laboratory to the field activity which is sero-surveillance.

Regular FMD Task Force meetings assembling all agencies involved in the programme are conducted to gather updates on the different activities set in their respective FMD work plan. The work plan was a product of the strategic planning exercises which are also routinely conducted upon the start of the following year.

Regional task forces and respective provincial/city veterinarians meet once or every other month during the Regional Advisory Committee on Animal Disease Control and Emergency (RAC-ADCE) meetings, wherein different animal health programmes and issues on animal movements in their localities are tackled. Nationally, members representing different livestock sector and agencies of the government called National Advisory Committee on Animal Disease Control and Emergency (NAC-ADCE) also meet once a month.
Component 3: Public awareness and communication

The National FMD Task Force sustains awareness of the meat consumers through its mascot “Super Pig” that visits public markets and graces different occasions with an aim to educate consumers of their right to get only healthy meat sold from the market. With this advocacy, more and more illegal trading of hot meat had been apprehended, and with the current situation of Ebola Reston Virus detection among pigs in the province of Bulacan, consumers as well as authority have been very alert on any illegal meat trading.

Moreover, the task force also conducts simulation exercises with participants from the government and non-government to gauge their alertness/response to as well as to train them in handling emergency situations.

The Task Force also concluded its survey on knowledge, attitude and practices on swill feeding. The informal study revealed that majority (77.9%) of the backyard raisers has knowledge of proper preparation of swill feed.

Component 4: Disease surveillance, diagnosis, reporting and control

Disease surveillance is still continuous despite the absence of FMD outbreak for three years since the last reported outbreak in December 2005. Areas that had outbreaks in 2005 and 3 years beyond had been subjected to special surveillance using a different sampling frame (using Free Calc) from that of the routine sero-surveillance. Serum samples collected had been subjected to NSP ELISA to ensure that no active infection is going on in the field. NSP ELISA has become the routine test procedure in the Philippines’ FMD Diagnostic Laboratory.

Suspect FMD or animals showing FMD-like lesions such as orf in the small ruminants and foot-rot are given equal attention and are likewise reported, which is also a gauge that the local field staff are doing their assignments on disease surveillance, reporting and control. Moreover, monthly submission of negative monitoring reports is also continuous as an added support to sero-surveillance activities.

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

The national programme to eradicate FMD in the Philippines follows a set of guidelines to sustain disease freedom. As an example, a no vaccination policy has already been implemented for ruminants as the characteristic of the virus only affects pigs thus vaccination using either Type O Philippines or O1 Manisa has been limited to pigs.

Furthermore, no vaccination policy has been implemented to Zones 1 (Regions CAR, II, and provinces of Ilocos Norte and Ilocos Sur in Region III, and Aurora in Region III) and 3 while a minimum movement of vaccinated animals especially breeder animals have been allowed to Zones 1 and 3 from Zones 2 to sustain good quality of stocks in the said two zones.

Breeder animal movement from Zone 2 to Zones 1 and 3 is under the BAI’s FMD-free Farm Accreditation Programme, wherein only accredited farms would be allowed to ship animals to Zones 1 and 3. This system proves to be effective in the eventual elimination of the virus as all animal movements have been monitored through a number of strategically situated animal quarantine checkpoints, implementation of standardized shipping protocol using color coded shipping permits as well deputation of farm veterinarians/consultants who shall carry the overall responsibility in case livestock shipment is faulty. Through this system, every single livestock movement is known to the authority.

Component 6: Regional research and technology transfer

The Philippines continues to participate and support regional efforts on research and technology transfer and has been in touch with the network developed/tapped by the OIE-RCU on this respect.

Component 7: Livestock sector development including private sector integration

The government conducts regular meeting with the livestock industry players such as hog farmers, cattle raisers, poultry farm operators, etc. Government-industry led organizations include the National Agriculture and Fisheries Council (NAFC), National Advisory Committee on Animal Disease Control and Emergency (NACADCE), Price and Volume Watch among others that tackles different issues concerning livestock production, animal health, crops and policy making.
Component 8: Monitoring and evaluation

Developments in the programme implementation and its activities are being monitored by the Secretary, the BAI Director as well as the stakeholders (industry players) or the members of the government-industry led organizations. The FMD Task Force always provides updates in every meeting with the livestock sectors, RFUs and LGUs. The task force welcomes recommendations/insights from the stakeholders to help the task force better in the implementation of the activities.

Likewise, the AusAID and FAO also conduct their respective monitoring and evaluation through reports submitted to them and through ocular inspection of the activities in the field. Reports are regularly submitted to the donor and implementer.
Appendix X

COUNTRY REPORT
OF
THAILAND

Introduction

According to the statistics of Thailand Department of Livestock Development (DLD), Thailand’s livestock population in 2008 was approximately 0.4 million dairy cattle, 9.1 million beef cattle, 1.3 million buffaloes, 7.7 million pigs and 0.4 million sheep and goats.

FMD situation in the country

There were 52 FMD outbreaks occurred in Thailand in 2008. The distributions of outbreak mostly occurred in Region 5 (Northern part) and Region 9 (Southern part) of Thailand (15 outbreaks in Region 9 and 13 outbreaks in Region 5 of Thailand).

FMD situation in Thailand in 2008

<table>
<thead>
<tr>
<th>Type of animals</th>
<th>Susceptible host</th>
<th>cases</th>
<th>deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bovine</td>
<td>17,133</td>
<td>2,215</td>
<td>14</td>
</tr>
<tr>
<td>Buffaloes</td>
<td>3,519</td>
<td>170</td>
<td>0</td>
</tr>
<tr>
<td>Suis</td>
<td>1,328</td>
<td>40</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>21,980</td>
<td>2,425</td>
<td>14</td>
</tr>
</tbody>
</table>

FMD outbreaks in Thailand in 2008 by type of virus and region

<table>
<thead>
<tr>
<th>Type of virus</th>
<th>A (%)</th>
<th>O (%)</th>
<th>Not typed (%)</th>
<th>Not sampled</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (%)</td>
<td>16</td>
<td>23</td>
<td>10</td>
<td>3</td>
<td>52</td>
</tr>
<tr>
<td>(30.77%)</td>
<td>(44.23%)</td>
<td>(19.23%)</td>
<td>(5.77%)</td>
<td>(100%)</td>
<td></td>
</tr>
</tbody>
</table>

The strain of FMD virus was diagnosed as type A = 16 outbreaks (30.77%), type O = 23(44.23%), unable to typing = 10 (19.23%) and not sampled = 3 (5.77 %).

According to molecular epidemiology of FMD virus serotypes O and A which outbreaks in 2008 were studied, type O were defined as SEA topotype, type A were defined as Asia topotype.

Spread of outbreaks

According to the field investigation, animal movement was still a major factors associated with the occurrence of FMD. Animal movements were reported to be associated in 39 outbreaks (75%).

Factors associated with FMD outbreaks in Thailand in 2008

<table>
<thead>
<tr>
<th>Factor</th>
<th>No. of outbreaks</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Animal Movement</td>
<td>39</td>
<td>75</td>
</tr>
<tr>
<td>1.1 General movement</td>
<td>21</td>
<td>53.85</td>
</tr>
<tr>
<td>1.2 Illegal movement</td>
<td>18</td>
<td>46.15</td>
</tr>
<tr>
<td>2. Vehicle / Vendor</td>
<td>8</td>
<td>15.38</td>
</tr>
<tr>
<td>3. Slaughtehouse</td>
<td>5</td>
<td>9.62</td>
</tr>
<tr>
<td>4. Unknown factors</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

Major epidemiological changes

FMD outbreaks increased from 35 outbreaks in 2007 to 52 outbreaks in 2008. It was found that in 2008, FMD type O was significantly predominant to type A.
New control measures

1. Farmers were encouraged to keep their own animal healthy and give vaccination to their own animal with under supervision of DLD’s staff. Manual for farmer on how to control FMD by vaccination was published in order to urge farmer to be aware of vaccination’s benefit, understanding nature of disease, how to prevent FMD disease; etc.

2. Ear tag in red, yellow and green were applied in some pilot area in the first step before expanding to countrywide the next step. Red ear tag will be used for imported animal whilst yellow one will be used in normal zone and green one will be used in southern and eastern part of the country which are the area approaching for FMD free zone. Number on ear tag is identity to each animal. This would help us to trace back of its origin.

3. Animal certificate has been given to the owner of animal when vaccination has been done. Animal certificate will provide identity number, history of owner, record of vaccination; etc. Animal certificate could be transferred to the new owner if it was purchased. Record of animal identification number is being kept in computerization system and the officer could access them through its website.

Report on achievement of objectives of the SEAFMD campaign

FMD control activities during the year 2008 can be summarized according to the eight components of SEAFMD strategy plan as follows:

Component 1: International coordination and support

One of the effective ways to control FMD in the region is to have an international collaboration and support continuously at both bilateral and multilateral level. The activities under these cooperation projects in year 2008 were as follows:

OIE
- The Department of Livestock Development (DLD) of Thailand had submitted the application to OIE Paris in July 2008 for designation the RRL as OIE Reference for Foot and Mouth Disease. The OIE Biological Standard Commission (BSC) has accepted the RRL application as a new OIE Reference Laboratory for Foot and Mouth Disease. This application will be submitted during the General Session in May 2009 for approval by the International Committee.

FAO
- FAO-ADB Phase II (GCP/RAS/233/ASB - RETA: 6390) contract has been signed in late December 2007. In this phase, the automatic sequencer has already been installed at the Regional Reference Laboratory for FMD (RRL) Pakchong since May 2008, at present this equipment is used as routine investigation for nucleotide sequencing of FMD field viruses causing outbreak in the region.

JICA
- JICA ADC phase2 was launched in 2007. In Thailand, Mae Hong Sorn animal quarantine station located in the border area of northern province was chosen to be project site for improving laboratory facilities. JICA provided equipment used for laboratory diagnosis. Mae Hong Sorn animal quarantine station is one of the entry point of livestock moved from neighbouring country. Strict quarantine measure has undertaken including checking for clinical sign, disease testing.

Global FMD Research Alliance (GFRA)
- The collaborative research between DLD-Thailand and USDA-USA untitled The Molecular Epidemiology, Surveillance and Protective Tool for FMD Control has been approved, this project will be focusing on the study of transmission mechanism of FMD virus persistently infected to susceptible local livestock., to determine the molecular epidemiology of FMD virus in local livestock in Thailand (cattle, buffaloes, goats and pigs) and to enhance testing strategies for identifying persistent infected animals using new technology.

Bilateral cooperation

Thailand-Laos
- The 7th Meeting of Joint Technical Committee on Livestock Development was held on 29-30 July 2008 in Chonburi, Thailand. The meeting agreed in principle to set up fundamental measure to bring in animal and animal products along the border of Laos and Thailand. DLD offered to support experts, technical assistances to Laos in southern area under Thailand International Cooperation Agency (TICA).
Component 2: Programme management, resources and funding

Overall fiscal budget during 2007–2011 for FMD was allocated up to USD 10 million. Thailand implemented National Livestock Identification System (NID) by using ear tag and computerization system and it reached the target nearly to 90% in southern provinces including eastern region. The target of this programme was also done in Royal cattle raising project and beef cattle extension in the DLD. It will expand to the whole country in the next step.

Component 3: Public awareness and communications

Several materials for public awareness activities have been developed including brochure, poster, sticker and booklets. The materials have been distributed to the target audience according to the strategy. The target audience were trader, organization, field staffs, farmer and the public. Public awareness activities especially focused on the regions that have the high priority to establish FMD free zone. Moreover, training livestock volunteer were conducted for sharing concepts of FMD prevention, vaccination and surveillance.

National Livestock Identification and FMD vaccination campaign were demonstrated during its campaign as corrugated board and also in webpage. Manual for farmer how to vaccinate animals was published and distributed to give basic knowledge on FMD vaccination, how to vaccine their own animal under supervision of DLD’s field staff.

Component 4: Diseases surveillance, diagnosis, reporting and control

Disease surveillance:
- In 2008, Thailand surveyed the prevalence for FMD by using Non-structure protein test and monitor antibody titer after vaccination by LP-ELISA twice a year.

Diagnosis:
1. The specimens and serum samples were received from Cambodia, Laos and Myanmar in 2008, there were 17 tissue samples and 9 serum samples from Cambodia, the diagnostic results were type O =10, type A =1 and not typed (NT) = 6. For Laos, 11 samples were diagnosed as type O. For Myanmar, 3 samples were diagnosed as type O and 1 was not type. Those viruses will be conducted for strain characterization by determine r-value and sequencing.
2. A panel of FMD isolation samples from Thailand and SEAFMD countries were submitted to WRL, UK in 22 July 2008. Totally 20 samples of field outbreak, from Thailand = 15 samples and Laos = 5 samples were sent to WRL for diagnostic confirmation and nucleotide sequencing

Reporting:
- After FMD outbreaks, initial report, investigation report, weekly surveillance report and outbreak intervention report were submitted to the FMD center in the headquarter in determined periods.

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


Establishment of Upper Mekong Commission for FMD Zoning and Animal Movement Management:
- The 8th meeting of working group on zoning for FMD and Animal Movement management in the upper Mekong Region was held in Mangshi, China from 9 to 11 February 2009. There are many recommendations arising from the meeting but the most important is that member countries will sign the proposed MOU at the OIE Regional Meeting in November 2009.

Establishment of Lower Mekong Commission for FMD Zoning and Animal Movement Management:
- The 7th Meeting of the Lower Mekong Working Group was held in Pakse, Laos. Thailand proposed eastern region (region 2) to be actively involved in Lower Mekong zone approaching for FMD free zone.

Malaysia-Thailand-Myanmar (MTM) Peninsular Campaign for FMD Freedom:
- Since the MOU signing ceremony for Malaysia-Thailand-Myanmar (MTM) Peninsular Campaign for FMD Freedom was held on 6 November 2003 at Hat-Yai, Thailand, lots of effort have been done to approach FMD free zone in this region. The 9th meeting of Tristate Commission was held in Bangkok, Thailand. EpiNet group gave technical recommendations to the Tristate commission.
Component 6: Regional research and technology transfer

1. OIE and SEAFMD RCU supported Dr Wilai Linchongsubongkoch, RRL, Pakchong to participate in the EUFMD meeting in Sicily, Italy, on 13-18 October 2008. Therefore we would like to thanks OIE and SEAFMD RCU for this important support.

2. As the part of SEAFMD Laboratory Network meeting in Hanoi, Vietnam, the first round of proficiency testing (PT) programme on FMD serology test by LP ELISA has been conducted by jointly RRL, AAHL and OIE RCU. An additional round of the inter-laboratory comparison on FMD serology test by LP ELISA and Non structure protein (NS) test were conducted by inviting the FMD laboratories within the country and including Myanmar and Cambodia.

3. As the part of OIE/FAO Reference Lab Network meeting, RRL has participated in the Reference Laboratory Network meeting in Launshou, China on 15-19 September 2008, and also participated in the inter-laboratory comparison on vaccine matching test which organized by WRL under this project.

Component 7: Livestock sector development including private sector integration

The participation of private sector in the FMD control programme is encouraged and strengthened through process of consultation or meeting. Those committees include the Swine Raiser Association, Swine Producers and Processors for Exporting Association, Animal Health Products Association, the Federation of Dairy cooperative Limited, Thai Holstein Friesian Association and Beef Cattle Association. These activities include reporting the occurrence of FMD as well as sample submission to the laboratory especially RRL. In addition, the committee comprising private sectors such as Swine Producers and Processors for Exporting Association and the Swine Raisers Association of Thailand and DLD chaired by DG was a forum to discuss the concerning issues.

Recently, private livestock meeting was conducted in Chiang Mai, Northern province of Thailand by SEAFMD RCU together with the DLD to communicate on FMD control strategies and livestock movement pathways.

Component 8: Monitoring and evaluation

DLD monitors all disease control programme including FMD via reporting system of Division of Planning. However, epidemiological data including serological survey after vaccination campaign will be collected and collated separately by Bureau of Disease Control and Veterinary Services. The annual review of the FMD control activities will be conducted to evaluate progress of the plan, subjected to formulation of the detailed work plan and budget for the next year.
In 2008, FMD outbreaks were only reported from provinces in the North and Northern Central parts of the country; no outbreak in the South. FMDV serotype O remains the dominating while FMDV serotype A is emerging, firstly from outbreaks in one province in the Northern Central parts and threatening other areas. Though FMD serotype Asia 1 was not detected during 2008 and early 2009, the presence of various virus serotypes has complicated the disease situation, making the control efforts even be more challenged, especially the decision on type of vaccines to be used.

**FMD situation in the country**

In 2008, FMD outbreaks were reported from provinces in the North and Northern Central provinces in the country, no outbreak has been found in provinces in the South. Totally there were 153 FMD outbreaks occurred in 128 communes, 47 districts of 14 provinces. There were a total of 2,728 infected animals (886 cattle, 1,775 buffaloes and 67 pigs) of which 361 died and/or were destroyed for control purpose. Nghe An and Ha Tinh were the two provinces hardly hit by the disease. FMD virus serotype O was predominant in provinces in the North while FMD virus serotype A was found in the Central provinces.

**Temporal distribution of outbreaks by month in 2008**

During the first two months of 2009, there were a total of 38 outbreaks in 36 infected communes, 11 districts of 5 provinces. Totally, 106 buffaloes and 394 cattle were found infected and 106 of them were destroyed. Spatially, again, outbreaks were concentrated in provinces in the North and Northern Central parts of the country; only one FMDV serotype O outbreak was reported from a province in the South (Long An, see FMD Outbreak Map 2008 attached for more information). Kon Tum Province has been the most affected by the disease. FMDV serotype O continues to dominate in most of outbreaks with some caused by FMDV serotype A.
Report on achievement of objectives of the SEAFMD campaign

Component 1: International coordination and support

In 2008, Vietnam had made remarkable contributions to the activity of international coordination and support for SEAFMD Campaign such as co-organising the 14th meeting of the OIE sub-commission for FMD in South-East Asia which was held in Hanoi from 10 to 14 March 2008; co-organising the SEAFMD/OIE LabNet meeting in Hanoi on 6–7 March 2008.

Additionally, Vietnam has been taking part in all international initiatives on disease control and prevention in the region as followings:

- Continue the implementation of the AusAID-funded, implemented by CARD project (CARD 072/04VIE) on FMD which aims at conducting intensive surveillance activities in 10 pilot provinces and technology transfer for FMD diagnostic techniques.
- ADB/FAO/OIE funded 6 training courses for about 700 local vets on investigation of FMD, CSF and AI outbreaks.
- New Zealand project: a FMD survey in two provinces namely Thai Binh and Nam Dinh in Red river delta. A total of 276 villages were randomly selected, within a village, cattle of age of more than 6 month old and sows were randomly selected up to 11 heads respectively, but not less than 6 cattle per village. More than 4,000 samples were collected and tested at NVDC’s laboratory.

In June 2008, a bilateral meeting between veterinary authorities of Vietnam and Laos was held Quang Binh, Vietnam. Then, in December, the bilateral meeting between Vietnam and Cambodia was held An Giang, Vietnam.

Component 2: Programme management, resources and funding

The National Plan for FMD control and eradication for the period of 2006-2010 has been revised with the total amount of VND 527 billion (~ USD 36 million). The 2009 plan which was submitted and approved will secure the funds and resources for the whole year activities.

Component 3: Public awareness and communications

Handbooks and leaflets on FMD control and prevention have been printed and distributed to farmers and animal health workers during 2008. Thirty-two training courses for eight pilot provinces were conducted for 1,960 provincial veterinarians and animal health workers.
A campaign for raising public awareness on FMD prevention and control in 2009 was planned and budgeted within the 2009 Plan for FMD Control, as part of the national Plan.

**Component 4: Disease surveillance, diagnosis, reporting and control**

Under the CARD-supported project, intensive surveillance activities have been implemented in ten participatory provinces namely Lang Son, Quang Ninh, Quang Nam, Kon Tum, Binh Phuoc, Tay Ninh, Long An, An Giang and Kien Giang. A commune was selected from each of two districts of each province to include into the surveillance programme. Recent results show that protection rate of vaccinated cattle and buffaloes are above than 80% compared while it is a bit lower in pigs (76%). The results also demonstrate that FMDV serotype O was dominating during 2008. The national post-vaccination monitoring programme for 2008 which planned to collect and test 5,400 samples from 90 randomly selected communes over the country was started late 2008. Lab results are currently being analysed. It is encouraging that number of provinces using TADinfo (a web-based reporting system provided by FAO) to submit outbreak data is increasing. Refreshment courses on TADinfo and data analyses have been planned, budgeted and scheduled to be held mid April 2009 for provincial staff of 63 provinces.

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

The national programme for prevention and control of FMD was revised and adjusted accordingly with recommendations from the 14th meeting of the OIE sub-commission for FMD in South-East Asia in Hanoi, from 10 to 14 March 2008.

Compensation policy was revised, updated and issued (Decision No. 719/TTg-NN dated of 5 May 2008) of which farmers can receive about 70% of market prices for their infected animals that must be culled.

Regulation on certifying animal disease free zones and compartments was revised and issued (Decision No. 66/2008/TTg-NN dated of 4 June 2008).

Review and restructure the domestic animal quarantine system, by which some inappropriate stations will be removed but some other new stations will be established for more effective control of animal movements.

**Component 6: Regional research and technology transfer**

- AusAID project (CARD 072/04VIE) and New Zealand aim to strengthen capability of FMD surveillance and control in order to increase national biosecurity.
- Veterinary staff have participated training courses on FMD diagnostic techniques in China.

**Component 7: Livestock sector development including private sector integration**

The National Strategy for Animal Production Development up to 2020 was issued by the Government (Decision No. 10/2008/QĐ-TTg dated 16 January 2008). Of which, animal production is expected to contribute about 32% of the total agricultural GDP. The main strategy is to encourage the development of intensive commercial farming systems; hence, policies will be developed to attract more investment to the sector. Farmers can access to loan with preferential interest rates from many banks.

**Component 8: Monitoring and evaluation**

The National FMD plan for FMD control and prevention for 2006-2010 has been reviewed and implemented where M&E activities was stressed. Vaccine efficacy will be monitored closely to make sure the vaccine strains are perfectly match with the field virus strains.
Appendix XII

Risk Pathways for FMD in the MTM

Purpose:

To describe the progress of a research project in the risk pathways for FMD involving the MTM Zones and to describe other current or proposed related research in the South-East Asia Region.

Background:

Livestock movements are known to be a major factor in the spread of transboundary animal diseases, including FMD. In much of South-East Asia, where there are extensive land boundaries between countries and where demand or price differentials exist across those boundaries, cross-border movement of livestock can be extensive. Throughout South-East Asia, the official protocols for cross-border movement of livestock are highly variable ranging from borders that remain closed to official movement of livestock to systems which are progressively facilitating cross-border movement to encourage the use of official channels. If we consider, however the actual movement of livestock, including unofficial movement, the patterns tend to be largely driven by factors of demand and price. In many cases, pathways of livestock movements are well known and have remained constant for some years, but others are more dynamic and remain vulnerable to change by: seasonal variations in price and demand; economic development of countries within and outside of South-East Asia and changing transportation costs and infrastructure.

There are a number of projects (ACIAR, AusAID SPS Capacity Building Project and FAO ADB) operating in the region with a focus on movement of livestock and, more specifically, the risks associated with livestock movement in terms of spreading FMD and other transboundary animal diseases. These projects are largely coordinated through SEAFMD RCU to ensure that: optimum benefit is achieved; knowledge gaps are addressed and duplication is avoided. The AusAID SPSCBP Project and Murdoch University, with the support of SEAFMD RCU are conducting a research project on the livestock trade and marketing networks in the MTM Zones of Malaysia, Thailand and Myanmar. This involves going beyond understanding the broad direction of animal movements to looking, at a higher resolution, at the actual individuals and livestock holdings involved in those movements. A major component of this research is identifying the various stakeholders of the livestock trade and marketing industry and the role of those stakeholders within the trading network as a whole.

The methodology used for this research project involves snowball sampling to identify and select stakeholders within the livestock trading industry and then use of semi-structured interviews and visualisation techniques to gather information from each individual selected. The information gathered includes:
- methods of procurement and sources of livestock;
- methods of selling and destination of animals sold;
- behaviour of traders and other stakeholders including biosecurity measures used, methods of selecting animals, etc;
- price information and animal health information.

During the interviews, the interviewee is also asked to consider their position in the wider network of livestock trade. The stakeholders or livestock holdings identified by each of the participants are then selected as further participants.

The objective of this research is to identify the stakeholders involved in the livestock trade and marketing industry, to qualify the risk of FMD transmission through each of the livestock holding areas identified; and to identify key nodes and pathways of livestock movements in terms of their contribution to the risk of transmission of FMD through the trading and movement network. In so doing, it is intended that strategic areas for focusing intervention measures will be identified. It is anticipated that a further advantage of the study will be greater engagement of the private sector involved in livestock trade through identification of, and communication with, previously unknown traders and stakeholders.

The study area of the research concerning the MTM Zone has been extended beyond the zone boundaries to incorporate: Central Myanmar, as this area represents a major source of livestock to the MTM Zones of Thailand and Malaysia; and Northern areas of Thailand, which represent key transit areas for livestock moving south to the MTM Zones and north or east to other neighbouring countries. Preliminary results of the research have indicated the importance of the livestock markets in the trade pathways in Myanmar, with identification of potentially key markets within that network. There are considerable limitations on identifying key traders operating in cross border movement but it is believed that these animals are sourced initially from markets before taking varied pathways towards the border areas. In Thailand the trading system also involves livestock markets as dominant players, but there are large traders
operating outside of the livestock market network. Early work indicated certain highly connected livestock markets that may represent critical points in the trading pathways in Thailand, particularly in the Northern areas of the country.

Other future directions of risk pathways research in South-East Asia includes an FAO ADB project planned in the Greater Mekong Sub-Region. This project will consider trade pathways of livestock, with a focus on cross-border movement. Similar approaches will be used to those in the SPS Project in the MTM Zones but will focus on key border areas of the GMS. The objectives of this study will be to identify the key stakeholders and trading pathways of livestock within the study areas and ultimately to identify focal, high risk areas that represent potential targets for intervention. The project will be managed by SEAFMD and will be implemented within participating countries. Field data collection will utilise participatory epidemiology and, as for the MTM Zone study, methodology such as Social Network Analysis and Risk Analysis will be used to analyse the results.

Recommendations:

IT IS RECOMMENDED THAT THE 15TH MEETING OF THE OIE SUB-COMMISSION:

- NOTE the progress of the studies on Risk Pathways for FMD in the MTM.
Appendix XIII

Engagement of the Private Sector

Purpose:
To provide details of meetings and activities involving the Private Sector and SEAFMD RCU during 2008 and 2009. Engagement of the Private Sector continues to be one of the priority areas for SEAFMD. Member countries are encouraged to continue to strengthen linkages with the private sector in order to gain the support which is vital to the successful control and eradication of FMD.

Background:
There have been two major activities involving the Private Sector in the early part of 2009. These have both been conducted under the AusAID Sanitary and Pyto-Sanitary Capacity Building Project (SPSCBP), with the support of SEAFMD RCU. These activities are part of a larger project to engage stakeholders in the FMD control campaign in the MTM Zone, and also address one of the components of the SEAFMD Campaign, to gain support of the Private Sector.

The first of these activities was a meeting held in Myeik, Myanmar in January 2009. The purpose of the meeting was to bring together members of the FMD Taskforces established in the Tanintharyi Division of Myanmar in 2003 to support the MTM Campaign for FMD Freedom. This was conducted under the SPSCBP to strengthen FMD taskforces in the MTM Zones. While the taskforces in Myanmar have been established for some years, this was the first time that all the members of the taskforces, from the township level up to the Divisional level, had been brought together to discuss the MTM Campaign and FMD specifically. The taskforces involve the veterinary authorities, the local authority, other government organizations and the private sector. One of the major private sector organizations focused on the livestock industry in Myanmar is the Myanmar Livestock Federation (MLF). The MLF is active throughout the country, with 104 members in the Tanintharyi Division alone. The members of the MLF include: livestock producers, farmers, traders, and animal health and production technicians. The MLF is very active in livestock production and have established a number of breeding farms and hatcheries throughout Myanmar. MLF contributes to the livestock industry through: Assisting producers and traders in following government regulations; encouraging and harmonizing good production, husbandry, manufacturing, and veterinary practice amongst producers and traders; facilitating communication between government and non-government organizations and helping to improve trading opportunities, both domestic and international, for livestock producers.

Another example of a Private Sector initiative in Myanmar is the exportation of cattle from Myeik to Malaysia. A quarantine station has been established through agreement of the governments, but implemented jointly by the Private Sectors of Myanmar and Malaysia. The quarantine station was established following agreement to export cattle from the MTM Control Zone of Myeik to Malaysia, as this area has been free of FMD for some years and therefore represents a safe source of cattle for Malaysia.

In March, 2009 a traders meeting was held in Chiang Mai, Thailand for traders and other stakeholders of the livestock trading industry in Northern Thailand. The participants included 33 members of the private sector (traders, livestock market owners and private quarantine station owners), and 11 participants from the DLD (from the headquarters and provincial officers). This meeting was conducted under the SPSCBP and supported by SEAFMD RCU. The purpose of the meeting was to engage the stakeholders of the livestock trading industry in this important area of Thailand, and to provide them with information on FMD, the SEAFMD Campaign and its objectives and further information such as: impacts of FMD; transmission dynamics of the viruses; early reporting; and the potential advantages of eradicating FMD. The Department of Livestock Development (DLD) presented an update to the private sector on livestock movement management and movement/quarantine regulations. Dr Prasit Sri-Utarawong, a Private Quarantine Station owner and cattle exporter, provided a presentation from the perspective of the private sector on the impact of the movement regulations and suggestions of how changes to these might facilitate the business of livestock traders. A workshop was also held to discuss livestock trading patterns and market chains in Northern Thailand, as part of a study being conducted in the MTM Zones.

Recommendations:
IT IS RECOMMENDED THAT THE 15TH MEETING OF THE OIE SUB-COMMISSION:

- NOTE the activities conducted to strengthen stakeholder support
- ENCOURAGE further engagement of the Private Sector by member countries in controlling FMD
- NOTE the need for more dialogue between the Veterinary Authorities and the Private Sector.
Appendix XIV

Public Awareness and Communications (SEAFMD Component 3)

Purpose:

To update the past 12 months of the SEAFMD Campaign for Component Three – Public Awareness and Communications – as well as outlining the proposed activities for the following 12 months.

Background:

It is agreed by all that Public Awareness and Communications are crucial components of the SEAFMD Campaign. We know that when farmers, traders, Animal Health Workers and other stakeholders are informed about FMD, they are more likely to act; to act early; and thus prevent the spread of FMD.

To compliment the SEAFMD Regional Communication Strategy, Member Countries need a well organised, coordinated communications strategy that takes into account the disease, as well resources, geography, politics, etc.

In the past 18 months OIE has put focus on highlighting that is a discipline and a profession has been well recognized. They identified the needs for definitions, Terms of Reference and Standards. An Ad Hoc Group has been established on communications. OIE has proposed chapter on communications to be introduced into the Code, noting that full integration of communications into the Code will be an effective mechanism to create the necessary incentive for countries, and ministries to incorporate communication strategies within animal health policies. OIE is currently reviewing and updating the PVS Tool looking at elements to assess the competence and commitment to communications of a modern Veterinary Service.

Over the past 12 months we have been involved in a number of activities with member countries where possible and having some excellent outcomes. Some of these activities included:

- Communications Training Module – this module is now completed and part of the Outbreak Investigation Training and Manual;
- Training in Northern Vietnam (jointly with FAO/OIE) and recently in Myanmar;
- Communication mission to Luang Prabang, Laos to do a grassroots survey with farmers and traders ascertain the status of animal health communication in Greater Mekong Region as part of PhD Study of Jim Caro – animal health communications – this included focus group discussions and transect walk and traders meeting;
- Specific Chapter on Communications in the 2020 Roadmap Tool Kit is almost completed;
- Regional SEAFMD Communications Strategy – accepted by the Sub-Commission in 2008 and by the OIE International Committee in May 2008 as part of the overall SEAFMD Strategy;
- ASEAN Workshop in developing a communications training – public and animal health module;
- Web continues in being developed as well as in the process of scanning all SEAFMD newsletters and being uploaded;
- OIE Asia Pacific – Regional Communications Workshop;
- Newsletter moved to a six-monthly publication and is now final layout is now done in-house at SEAFMD;
- E-News was launched in September;
- communications strategies for specific zones – Upper Mekong Zone, Lower Mekong Zone and MTM Zone – are all at different stages; each group has been consulted about specific ideas for these communications strategies.

With OIE and SEAFMD’s work on communication we need to strive for a stronger and more active communication campaign for FMD. The next 12 months will continue to build on this momentum and try to keep communications in the forefront of everyone’s strategies for SEAFMD. Future activities will include

- participation in the PSVS (Project for Strengthening Veterinary Services) Communications Workshop in Siem Reap, 19-20 March 2009;
- completion of draft communication plans for the Upper Mekong, Lower Mekong and MTM;
- continue to develop ‘Super Buffalo’ for Laos (try to seek funding for this);
- SEAFMD E-News and newsletters;
- work with member countries in updating/completing communication strategies as well as confirming focal person for FMD communications;
- develop the website in conjunction with the OIE RCU Sub-Regional Representation’s website;
- additional templates for public awareness to encourage further harmonisation of our message (to be translated and used by all member countries);
specific information sheet for traders;
- standard of operation sheet on emergency procedures for FMD outbreak for animal health workers; and,
- complete media kit to inform journalists about FMD.

We will continue to encourage and support the development of communication plans for member countries which include the offer to come to the member country to help in the development of the plan; public awareness and communication training needs assessment. We have a busy year ahead!

There is a need for more action on the recommendations of the SEAFMD Communication Workshops held last year, including:

1) Priorities be established for activities under the SEAFMD Communication Plan (2007-2010) and individual country plans to better direct effort in support of the 2020 Roadmap, in particular giving emphasis on priority zones;

2) Each member country identify a national communication focal person to establish a single point of contact for the campaign in each country and to be that country’s representative on a SEAFMD communication network;

3) Each member country allocate funding for animal health communication;

4) To review the success of the education and awareness elements in eradicating FMD in the Philippines and Indonesia as case studies for other SEAFMD countries to adapt for country-specific public communication activities in support of the 2020 Roadmap;

5) Align FMD communication activities with other transboundary animal disease initiatives such as highly pathogenic avian influenza, recognising there are many commonalities in practices that can be adopted for all animal diseases;

6) Seek political commitment from government at all levels (ministerial, national officials and local government) in member countries for the 2020 Roadmap including the importance of public communication in achieving FMD eradication;

7) Align FMD public communication efforts with broader ASEAN, APEC, FAO and OIE multilateral priorities.

There will be an emphasis on targeted regional production of communication materials and support for national activities where necessary.

**Recommendations:**

IT IS RECOMMENDED THAT THE 15TH MEETING OF THE OIE SUB-COMMISSION FOR FMD IN SOUTHEAST ASIA:

- NOTE the progress of the Public Awareness and Communications Campaign
- FOLLOW in the implementations of the recommendations from SEAFMD Communications Workshop.
## Progress SEAFMD Workplan for 2008/09

<table>
<thead>
<tr>
<th>PROGRAMME DESCRIPTION</th>
<th>PLANNED ACTIVITIES</th>
<th>TARGETS (MARCH 2008 – FEBRUARY 2009)</th>
<th>OUTCOMES</th>
</tr>
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<tbody>
<tr>
<td><strong>Component 1:</strong></td>
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<tr>
<td><strong>INTERNATIONAL CO-ORDINATION AND SUPPORT</strong></td>
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<tr>
<td><strong>Output 1.1</strong></td>
<td></td>
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<tr>
<td>Annual Sub-Commission (SubCom) meeting and regional workshops to identify issues and strengthen programmes</td>
<td>14th Sub-Commission meeting</td>
<td>SubCom 14 to be held in March 2008</td>
<td>Meeting held in Hanoi from 10 to 14 March 2008, and report published and endorsed Regional Commission and OIE General Session in May 2008.</td>
</tr>
<tr>
<td></td>
<td>Progress action on recommendations from SubCom 14. Checklist maintained and reviewed quarterly and actions completed.</td>
<td>Action list developed in March 2008 and reviewed regularly</td>
<td>Action list developed, reviewed and actions implemented will be presented at the National Coordinators meeting this August.</td>
</tr>
<tr>
<td></td>
<td>Conduct National Coordinators Meeting</td>
<td>National Coordinators meeting to be held in July/August 2008.</td>
<td>Meeting held from 27 to 29 August 2008 in Chiang Mai, Thailand</td>
</tr>
<tr>
<td></td>
<td>Conduct at least one regional meeting or workshop.</td>
<td>Meeting held and reports published.</td>
<td>Sub-regional workshop on FMD Information System and meeting of the SEAFMD EpiNet was held in Manila on 16-17 February 2009.</td>
</tr>
<tr>
<td></td>
<td>Provide support for, and fund where necessary, one meetings each for MTM Tristate Commission, UMWG, LMWG and MZWG.</td>
<td>Meetings held and reports published and on website within two months.</td>
<td>MTM EpiNet and TSC Meeting held from 29 June to 2 August 2008.</td>
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<tr>
<td></td>
<td>Regular Meeting of the SEAFMD Steering Committee</td>
<td>Steering Committee to meet at SubCom 14</td>
<td>Meeting held and report available.</td>
</tr>
<tr>
<td>PROGRAMME DESCRIPTION</td>
<td>PLANNED ACTIVITIES</td>
<td>TARGETS (MARCH 2008 – FEBRUARY 2009)</td>
<td>OUTCOMES</td>
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<tr>
<td>Output 1.2</td>
<td>Number of missions conducted, scope of countries visited and details of progress on priority issues.</td>
<td>At least one mission to each country conducted and these to include discussions with Ministers, DGs and other stakeholders on priority issues for SEAFMD e.g. planning and performance of national programmes, review of legislation and policy, program to strengthen veterinary services.</td>
<td>Missions carried out in Malaysia, Indonesia, Cambodia, Laos, Myanmar, Thailand, Philippines and Vietnam.</td>
</tr>
<tr>
<td>Output 1.3</td>
<td>Draft workplan for endorsement at the annual OIE Sub-commission and ASWGL meetings</td>
<td>Workplan submitted to OIE Sub-commission and ASWGL</td>
<td>Workplan endorsed at the 14th SubCom in March and ASWGL in April 2008.</td>
</tr>
<tr>
<td>Output 1.5</td>
<td>Assist ASEAN to develop institutional arrangements to handle animal health programmes.</td>
<td>Work with ASEAN secretariat to develop a Terms of Reference of a consultant who will develop options for institutional arrangements.</td>
<td>Meetings with ASEAN Secretariat held during the ASWGL Meeting and further discussion were conducted during several meetings.</td>
</tr>
<tr>
<td></td>
<td>Assist ASEAN to operationalize the AAHTF</td>
<td>Meetings with ASEAN secretariat to discuss arrangements</td>
<td>Meetings with ASEAN Secretariat held in July during the ASEAN EID Meeting. Update on country contribution to AAHTF showed that 9 countries have contributed to total amount of more than $500,000 USD.</td>
</tr>
<tr>
<td></td>
<td>Progress report to ASWGL.</td>
<td>Report to be submitted to ASWGL</td>
<td>Report was presented at the ASWGL meeting in April.</td>
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<tr>
<td>Output 1.6</td>
<td>SEAFMD collaborate with other animal health projects and encourage support for FMD control and ensure synergism on capacity building of veterinary services</td>
<td>Joint activities in organizing workshops and implementation of sero-surveys and public awareness campaigns with ADB-FAO and JICA</td>
<td>Joint training on outbreak investigation with FAO/ADB-AL project was held in North Vietnam in June.</td>
</tr>
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<td>PROGRAMME DESCRIPTION</td>
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| Output 1.7  
Strengthen cooperation and exchange with countries neighbouring SE Asia | Improved cooperation with PR China for FMD control  
Increased interaction with South Asia on areas of cooperation | Mission to China and continue to invite them in SEAFMD activities  
Encourage communication link with India and Bangladesh | PR China actively participated in the 14th SubCom meeting; delegates from headquarters in Beijing and from Yunnan province attended. 8th UMWG Meeting was held in Yunnan in February 2009.  
Communication link started. |
| Output 1.8  
RCU recognised as the peak co-ordination body for FMD in South East Asia | Attend international meetings including OIE General Session, Regional Commission, ASWGL, APHCA  
Maintain existing and make new linkages with international agencies including WRL Pirbright, AusAID, FAO, APHCA, JICA, ILRI, IAEA, ACIAR, New Zealand MAF, ADB, WB, IDNP and other regional FMD programmes.  
Engage Advisory and Steering Committee between meetings.  
Progress the development of the long-term strategic vision for FMD in South East Asia and work with other agencies to align their activities in support. | Mission reports.  
To be carried out during missions in 2008/09.  
Contact/e-mail with Advisory and Steering Committee.  
Conduct working group meetings in conjunction with other agencies and promote the long term vision | Attended OIE Regional Commission and General Session in May 2008, and ASWGL in April 2008.  
Linkages maintained.  
Advisory and Steering Committee informed  
SEAFMD 2020 Roadmap developed as long-term strategic vision document widely distributed; around 500 copies distributed  
Strategic Plan for MTM was reviewed and Plan for UMZ was drafted, in line with SESAFMD 2020 roadmap |
<table>
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<tr>
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<tbody>
<tr>
<td><strong>Output 1.9</strong></td>
<td>Harmonised technical and scientific approaches to FMD control in the region</td>
<td>Draft recommendations from SubCom and the regional meetings on technical and scientific approaches to FMD control</td>
<td>Recommendations adopted and continuously being monitored the implementation by member countries</td>
</tr>
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</table>

**Component 2:**
**PROGRAMME MANAGEMENT, RESOURCES AND FUNDING**

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<tr>
<td>Output 2.2</td>
<td>SEAFMD Phase III Regional Plan updated to include 2008-2010</td>
<td>Regional SEAFMD Plan for Phase III reviewed and revised in accordance with the strategic directions laid down by Roadmap 2020</td>
<td>Review and updating of SEAFMD Phase III plan</td>
<td>SEAFMD Phase III Plan (2008-2010) finalised and for endorsement at 15th SubCom meeting</td>
</tr>
<tr>
<td>Output 2.3</td>
<td>Review and endorse SEAFMD National Plans for each country that identifies resource levels and budgets to deliver annual outputs.</td>
<td>Review, harmonise and update existing plans for Phase III and seek formal endorsement by governments.</td>
<td>Plans presented for consideration by March 2009</td>
<td>Updating of National FMD Plans on-going</td>
</tr>
<tr>
<td>Output 2.4</td>
<td>Monitor the progress of National Programs and assist planning for 2008-2010.</td>
<td>Regular review of national and regional Plans undertaken. Problems identified. Plans adjusted.</td>
<td>SEAFMD Sub Com reviews progress at SubCom 15</td>
<td>Progress to be reported at 15th SubCom meeting in March 2009.</td>
</tr>
<tr>
<td>PROGRAMME DESCRIPTION</td>
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<tr>
<td><strong>Output 2.5</strong></td>
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</tbody>
</table>
|                       | Provide adequate support to RCU to enable it to carry out its functions | Request funds to employ additional consultants as required to provide technical services | Hire consultants to:  
  - advise on strategic policies  
  - review current FMD information system and recommend strategies to strengthen existing FMD surveillance at the field level  
  - train national coordinators and staff on the management of disease control programmes  
  - study on economic impact of FMD in the region | Senior Consultant assisted the strategic policy directions of RCU  
A livestock economist worked with the RCU to identify priority areas for research to underpin SEAFMD 2020  
No secondee in 2008 because candidate countries can’t provide staff due to heavy work load. Will negotiate again in 2009.  
AVI disapproved continuation of volunteer. Will approach other agencies (Youth Ambassador Programme)  
Dr Polly Cocks from Murdoch University seconded at the RCU  
A French veterinarian arrived in September 2009 to stay for two years |
|                       | Request funds to employ additional consultants as required to provide technical services | Progress SEAFMD secondment programmes  
- Regional 3 month secondments.  
- Renew international volunteer’s term  
Negotiation with AVI and DLD in late 2008.  
Approaches to SEAFMD observer countries for international secondments at RCU, RRL etc. |          |
<p>| <strong>Output 2.6</strong>        | Options for future funding mechanisms | Develop options for funding in 2008-2010 | Finalise agreement with OIE, ASEAN member countries, and donor/s to fund SEAFMD campaign for the period of 2008-2010 | AusAID approves funding from March 2009 to June 2011 in the amount of AUD 2,610,153. New Zealand donated NZ$ 300,000 last June 2008 to support the SEAFMD campaign |</p>
<table>
<thead>
<tr>
<th>PROGRAMME DESCRIPTION</th>
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<tbody>
<tr>
<td><strong>Output 2.7</strong></td>
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<tr>
<td>Develop capacity of national coordinators to manage FMD and other disease control programmes</td>
<td>Conduct training management of disease control programs, including strategic planning and monitoring and evaluation (M&amp;E)</td>
<td>One workshop conducted in August 2008</td>
<td>A workshop on the last day of National Coordinators meeting was conducted to discuss SEAFMD Plan 2008-2010 and M&amp;E Framework</td>
</tr>
<tr>
<td><strong>Component 3:</strong></td>
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<tr>
<td><strong>PUBLIC AWARENESS AND COMMUNICATIONS</strong></td>
<td>To develop a communication strategy that supports effective implementation of the FMD programme</td>
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<tr>
<td><strong>Output 3.1</strong></td>
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<tr>
<td>Strategy promotes regional goals of SEAFMD and links to national strategies</td>
<td>Update Regional Communication Plan</td>
<td>Communication Officer to update plan in consultation with National Coordinators</td>
<td>Updated Regional Communication Plan</td>
</tr>
<tr>
<td></td>
<td>Implementation of SEAFMD communication plan for 2008.</td>
<td>Communications plan implemented according to schedule</td>
<td>Progress to be reported at 15th SubCom Meeting.</td>
</tr>
<tr>
<td></td>
<td>Strengthen network of communication focal points</td>
<td>Organize Regional Workshop in Strengthening Communication Plan</td>
<td>Outcomes of the Regional Communication Workshop held in will be discussed at 15th SubCom.</td>
</tr>
<tr>
<td></td>
<td>Website maintained and developed</td>
<td>Website maintenance and annual enhancement to continue.</td>
<td>Website enhanced, with new features on disease mapping link with ARAHIS/WAHIS regional core.</td>
</tr>
<tr>
<td></td>
<td>SEAFMD News published quarterly</td>
<td>4 editions published and distributed in December 2008 (March, June, September, December)</td>
<td>Revised to semi-annual publication lieu of electronic newsletter launched in September 2008</td>
</tr>
<tr>
<td></td>
<td>SEAFMD electronic library updated</td>
<td>Compilation of SEAFMD reports, technical papers and relevant documents into CD format</td>
<td>Updating of CD SEAFMD E-Library on-going</td>
</tr>
<tr>
<td></td>
<td>Stakeholder list completed and maintained.</td>
<td>Stakeholder list updated and maintained. National Coordinators to assist in update of database.</td>
<td>Stakeholder list updated.</td>
</tr>
<tr>
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<tr>
<td><strong>Output 3.1 (contd)</strong></td>
<td>SEAFMD Manual for field veterinarian and village animal health workers</td>
<td>A field manual on management of FMD outbreak developed</td>
<td>Field manual on Outbreak Investigation was further refined to include communications and management of outbreaks.</td>
</tr>
<tr>
<td></td>
<td>Revised SEAFMD brochure distributed with assistance by members.</td>
<td>Brochure updated to reflect long-term vision to control and eradicate FMD by year 2020</td>
<td>Under development</td>
</tr>
<tr>
<td><strong>Output 3.2</strong></td>
<td>Member countries with RCU assistance where necessary to implement their communications and public awareness (PA) plans.</td>
<td>Communication and PA activities to be maintained and reported at SubCom meetings.</td>
<td>Implementation of Communications and PA plans on-going.</td>
</tr>
<tr>
<td>Communications and public awareness activities</td>
<td>Organized PA campaigns, workshops, meetings in the MTM, Upper and Lower Mekong zones.</td>
<td>Organize at least two PA campaigns along the border areas.</td>
<td>Meetings/workshops were organized in-country.</td>
</tr>
<tr>
<td><strong>Output 3.3</strong></td>
<td>Ensure that each national FMD plan includes a communication strategy.</td>
<td>Included in national plans and SEAFMD Communication Strategy.</td>
<td>National plans include Communications and PA component.</td>
</tr>
<tr>
<td>National FMD plans that include communications strategy</td>
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<tr>
<td><strong>Component 4:</strong></td>
<td>Harmonised technical approaches documented and incorporated into national plans.</td>
<td>Harmonised approaches agreed for diagnosis during the Laboratory network meeting in March 2008 and surveillance and control procedures harmonised during the Sub-Com and National coordinators meeting</td>
<td>Recommendations on harmonised approaches on surveillance, diagnosis and control endorsed and implemented.</td>
</tr>
<tr>
<td><strong>DISEASE SURVEILLANCE, DIAGNOSIS, REPORTING AND CONTROL</strong></td>
<td>Conduct training on disease outbreak investigation, surveillance and control</td>
<td>Conduct 3 trainings, giving priority to CMLV countries</td>
<td>Trainings conducted in Northern provinces of Vietnam, held last June 2008 and two trainings in Myanmar in January 2009.</td>
</tr>
<tr>
<td><strong>Output 4.1</strong></td>
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<tr>
<td>Ensuring the application of harmonised approaches to FMD surveillance, diagnosis and control</td>
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| Output 4.2  
Compilation and reporting of regional epidemiological information and analysis | Reporting system based on outbreaks maintained on the website.  
Epidemiological network to assist with regional analysis and interpretation of information and to carry out targeted surveillance | Reporting system maintained and enhanced.  
Epidemiological network continue to discuss enhancements of disease reporting. | A new, dynamic online reporting through ARAHIS/WAHIS regional core is now linked with the SEAFMD website. New features on disease tabulation, graphs and maps.  
A sub-regional meeting of the SEAFMD Epidemiological Network (EpiNet) was conducted on 16-17 February 2009 in Manila, and discussed ways to improve FMD reporting and analyses of data. |
| Output 4.3  
Sharing information about the evaluation of FMD control strategies | FMD control efforts across the region are optimised as a result of shared information | Endorsement of control strategies at Sub Com and commitment of members to implement control measures and record impact. | Information shared during workshops and meetings. |
| Output 4.4  
Maintain and enhance diagnostic capability within the region | Monitor typing of field outbreaks and where necessary encourage national laboratories to maintain diagnostic services.  
Establish FMD Laboratory network and enhance diagnostic quality assurance.  
Provide FMD laboratories access to diagnostic kits and reagents  
RRL to start a Quality Assurance (QA) system for national laboratories | Annual report presented in March 2009 and additional comment by expert panel.  
Workshop of National FMD Diagnosticians to exchange advances in laboratory techniques and establish the regional laboratory network  
RRL to procure diagnostic kits and reagents and distribute to FMD laboratories  
National FMD laboratories participate in a QA system | Analysis of FMD outbreaks will be presented at 15th SubCom meeting.  
Workshop of Laboratory Network to be conducted during the 1st half of 2009.  
Some kits and reagents distributed to Cambodia and Myanmar.  
Some national FMD laboratories has participated in the proficiency testing. A follow inter-lab test will be conducted on voluntary basis. |
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<tr>
<td>Output 4.5</td>
<td>Assist Thailand where possible with development and promotion of the RRL, facilitation of resources and expertise and move toward OIE Reference Laboratory accreditation status.</td>
<td>RRL/RCU to report on operational status at annual Sub-Com meeting in March 2009.</td>
<td>RRL operational to international standards. OIE Biological Commission has approved RRL as an OIE Reference Laboratory for FMD. Final approval in May 2009 during the OIE General Session.</td>
</tr>
<tr>
<td>Output 4.6</td>
<td>Encourage and facilitate submission of field specimens from member countries (particularly from Cambodia, Laos, Myanmar and Vietnam) to the RRL</td>
<td>No. of samples submitted from neighbouring countries and tested by RRL</td>
<td>RRL continue to accept samples from member countries</td>
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**Component 5:**

**POLICY AND LEGISLATION TO SUPPORT DISEASE CONTROL AND ZONE ESTABLISHMENT**

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<tr>
<th>Output 5.1</th>
<th>Examine existing policies and legislation from member countries.</th>
<th>Review existing policies and legislation and recommend provisions to improve</th>
<th>A new round of review will be conducted, close coordination with PSVS</th>
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<tbody>
<tr>
<td>Output 5.2</td>
<td>Review implementation of recommendations from the Workshop on AMM in the Mekong basin and provide support for the development of working groups to establish the feasibility of zoning proposals. AMM to become an important element in zoning proposals.</td>
<td>Support for working groups, provide financial support for one meeting per working group and technical and secretariat support for all working groups.</td>
<td>Working groups are active. MTM meet last week of July, LMWG in November 2008 and UMWG in February 2009.</td>
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<td><strong>Output 5.3</strong> Progress MTM Campaign for FMD Freedom</td>
<td>Conduct meeting of the Tristate Commission (TSC) and finish reports. Update MOU, project description, logical framework and minimum standards. MTM Epidemiological Network launched and operational Encourage research on FMD by postgraduate students from Malaysia-Thailand-Myanmar. Annual report to DGs, Sub Com and ASWGL Regular reports to TSC.</td>
<td>Meetings held in June 2008 and reports completed within two months. Documents were updated after each meeting of TSC when necessary. Meeting of the EpiNet back to back with MTM TSC Assist PhD students in Murdoch and other Universities doing thesis relevant the MTM Campaign. Reports submitted in March 2008. Reports submitted.</td>
<td>9th MTM TSC Meeting was held in Bangkok from 29 June to 1 August 2008. Minimum standards, definitions and rules for zoning at the MTM has been revised at the MTM TSC meeting. 3rd MTM EpiNet Meeting held in Bangkok prior to TSC meeting. Recommended measures to improve surveillance and other technical advice TSC. Post graduate research students from Murdoch University progressing presented their studies at EpiNet meeting. Reports submitted. Reports submitted.</td>
</tr>
<tr>
<td><strong>Output 5.4</strong> Progress with zoning in the Upper and Lower Mekong</td>
<td>Conduct meetings of the Working Group of the Upper and Lower Mekong Zones</td>
<td>Meetings held in November 2008 and Feb 2009</td>
<td>8th Meeting of UMWG held in Yunnan, PR China in February 2009 and the 7th LMWG in Laos in November 2008.</td>
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<tr>
<td><strong>Output 5.5</strong> Animal Movement Control</td>
<td>Organize stakeholders meetings/workshop along strategic borders Collaborate with ACIAR and other agencies on animal movement studies Facilitate the drafting protocols to harmonized procedures for cross-border of animals.</td>
<td>Workshops of traders and other stakeholders along borders Participate meetings with ACIAR project animal movement Harmonised protocol drafted</td>
<td>A meeting of traders from Myanmar, Thailand was organised. Dr Ben Madin from ACIAR Project presented progress of his work at SubCom meeting Assist drafting protocol for the Cambodia-Vietnam cross border movement of animals.</td>
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<tr>
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<td><strong>Component 6:</strong> RESEARCH AND TECHNOLOGY TRANSFER</td>
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<td><strong>Output 6.1</strong> Identify research issues of importance to SEAFMD and encourage participation of relevant research organisations.</td>
<td>Identify any new key research issues through the Sub Com and canvass potential collaborators. Maintain research register on the SEAFMD website</td>
<td>Research issues identified. Update ongoing and report annually Assist member countries develop research proposals</td>
<td>A research needs analysis was conducted with the help of a consultant from AB-CRC, to prioritize areas for research to underpin SEAFMD 2020. Listing of research topics for possible funding by donors. Key priorities for research are on the economic impact of FMD and its implications to gender development. List updated Some research proposals drafted</td>
</tr>
<tr>
<td><strong>Output 6.2</strong> Collaborate with projects designed to extend new technology to the diagnosis and control of FMD in the region.</td>
<td>Demonstrated involvement with international technology transfer programmes including participation in regional workshops or training programmes.</td>
<td>Participate in international meetings on identifying priority research areas</td>
<td>Participated at the AB-CRC annual meeting held in Bangkok from 24 to 26 June 2008. Presented the progress of SEAFMD and priority list of FMD researches.</td>
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<td><strong>Component 7:</strong> LIVESTOCK SECTOR DEVELOPMENT INCLUDING PRIVATE SECTOR INTEGRATION</td>
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<tr>
<td><strong>Output 7.1</strong></td>
<td>Participation of PSCC and private sector organisations or companies in private sector session at SubCom 15.</td>
<td>Private sector to present at 15th SubCom in March 2009.</td>
<td>Private Sector representative presented their report at the SubCom.</td>
</tr>
<tr>
<td></td>
<td>Strengthen Private Sector Consultative Committee (PSCC)</td>
<td>Organize one Regional workshop of PSSC</td>
<td>Another meeting will be held in 2009.</td>
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<tr>
<td></td>
<td>Review membership of PSCC</td>
<td>Identify additional members from livestock traders and farmers organizations</td>
<td>Requested member countries to recommend new members to PSCC</td>
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<tr>
<td></td>
<td>Review and Update the Private Sector Plan in association with the PSCC.</td>
<td>PS Plan revised and updated.</td>
<td>Revised PS Plan.</td>
</tr>
<tr>
<td><strong>Output 7.2</strong></td>
<td>Number of livestock sector organisations being established</td>
<td>National plans identify that establishing livestock sector organisations is an important activity.</td>
<td>In-country consultations with private sector representatives held.</td>
</tr>
<tr>
<td><strong>Output 7.3</strong></td>
<td>Number of existing livestock sector organisations being involved in the SEAFMD Campaign.</td>
<td>National plans have activity to identify the existing organisations and possibility to have them involved in the Campaign.</td>
<td>Livestock sector actively participate in the national FMD programmes.</td>
</tr>
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<td></td>
<td>Existing livestock sector organisations provide financial or technical support.</td>
<td>National coordinators to negotiate.</td>
<td>Private sector from Malaysia, Thailand and Myanmar assist in building holding yard infrastructure to comply with quarantine regulations. Private sector in Indonesia and Philippines are active in public awareness campaign to prevent entry of FMD.</td>
</tr>
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<td></td>
<td>Vaccine suppliers actively support the joint research and development proposal by the private sector for collection, transportation and strain characterization of isolates.</td>
<td>All parties implement the proposal and report in March 2008.</td>
<td>The offer is standing for member countries to use.</td>
</tr>
<tr>
<td>Output 7.4</td>
<td>Involvement of animal health private sector in SEAFMD.</td>
<td>Incorporation of specific targets in the National plans for the period 2008-2010.</td>
<td>On-going engagements with private sector.</td>
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### Component 8: MONITORING AND EVALUATION

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<thead>
<tr>
<th>Output 8.1</th>
<th>Establish procedures to monitor the performance of the Regional Co-ordination Unit and the regional programme.</th>
<th>Workplan endorsed and circulated</th>
<th>Workplan endorsed and revised.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sub Com 15 to endorse annual workplan subject to revision to include Sub Com decisions.</td>
<td>Independent Evaluation Report to be completed by April 2008</td>
<td>Independent Evaluation was successfully conducted and report submitted to AusAID in April 2008. The evaluation Team concluded that the SEAFMD is in the right track and has achieved significant milestone in coordinating FMD control in the sub-region. They recommended the continued funding of the programme.</td>
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<td>RCU to support AusAID Evaluation Team</td>
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<thead>
<tr>
<th>Output 8.2</th>
<th>Regular reports provided to OIE, donor agency and SubCom</th>
<th>Reports submitted on time</th>
<th>Six-monthly reports to OIE and AusAID submitted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Six-monthly and annual reports submitted to OIE, AusAID. Annual reports to OIE Central Bureau, Regional Commission, Sub Com on FMD in South East Asia, ASWGL. OIE mission requests, reports and expenses reports submitted.</td>
<td>Annual reporting completed on time. OIE documents submitted within one month of mission.</td>
<td>Reports submitted on time. Documents submitted on time.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Output 8.3</th>
<th>Financial reporting according to OIE guidelines</th>
<th>Reports submitted.</th>
<th>Monthly reports submitted.</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Accurate financial reports submitted as required.</td>
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</table>
15th Meeting of the OIE Sub-Commission for Foot and Mouth Disease in South-East Asia
Kota Kinabalu, Sabah, Malaysia

Meeting of SEAFMD Delegates
11 March 2009, 10:30 pm – 3:30 pm

AGENDA

Chairperson: Dr Gardner Murray
Rapporteur: Dr Ronello Abila and Dr Tri Satya Putri Naipospos

Introduction
Nominations of issues for discussions
Nomination of Vice-Presidents
SEAFMD 2009/10 Programme
   Technical
   Institutional
Recommendations
Other matters
15th Meeting of the OIE Sub-Commission for Foot and Mouth Disease in South-East Asia
Kota Kinabalu, Sabah, Malaysia

Meeting of SEAFMD Observer Delegates

11 March 2009, 10:30 pm – 3:30 pm

AGENDA

Chairperson: Dr Bernard Vallat

Rapporteurs: Dr Gaston Funes and Dr Itsuo Shimohira

1. Introduction

2. OIE policies and programmes and future directions

3. The SEAFMD 2009/2010 Programme
   - Issues and constraints
     i. Technical
     ii. Institutional

4. Recommendations

5. Other matters
Appendix XVIII

Meeting of SEAFMD Delegates

15th Meeting of the OIE Sub-Commission for FMD in South-East Asia

Recommendations and observations

These recommendations are provided here in note form but have been incorporated into the main meeting recommendations.

- Philippines FMD application / Implications for SEAFMD: Role of RCU; and Research project
- Philippines: Extension of AusAID Project
- AANZ FTA: Keep under review
- Outbreak investigations: 600 people trained; Manual; UM WG / LM WG / MTM; Animal Movements
- Epidemiology: Data analysis
- Vaccines: Efficacy; FAO/vaccine bank; EC project
- Research & Developments: Priorities; EC EIDs
- PR China: Serotype A outbreaks
- Chinese Taipei: O outbreaks; JICA; Surveillance
- Private sector; Encourage involvement in countries; PSCC
- Public awareness; Manual; PSVS
- CODES; Comments; Regional coordinators; ASWGL
- ASEAN Bridge; Independent review involvement/support
- Roadmap toolkit; 1st 6 chapters uploaded by end of June
Appendix XIX

Meeting of Observer Delegates

15th Meeting of the OIE Sub-Commission for FMD in South-East Asia

Recommendations and observations

Vaccine supply and vaccination

The importance of vaccines availability, both for emergency situation within a regional context, as well as blanket vaccination at national level mainly addressed a remanent endemic zones, identified through epidemiological studies was emphasized. The OIE confirm the advanced stage of negotiation with EC for the establishment of a FMD Vaccine Bank (for emergency and specific situations) within a broader project aimed to Good Governance. Such a project includes both Animal Health and Public Health matters also using the concept of One World One Health; therefore vaccine banks will be also established for some zoonoses, such as rabies.

It was recommended that:
- The FMD vaccine bank be established as a priority as soon as possible;
- A vaccine policy including necessary resources and blanket vaccination in epidemiologically relevant zones as part of the progressive zoning approach be applied through national programmes key donors must be convinced by countries and SEAFMD to invest in a national level;
- Countries carry out post vaccination serology testing for follow up vaccination

Funding

The continued support provided by Australia was recognised. Funds from AusAID for Phase III of the SEAFMD Campaign will hopefully soon be available. Also funds from the EC where announced during the meeting which will support a complimentary project on good governance which will bring a synergistic supporting affect to the SEAFMD project (including financing the FMD vaccine bank) and PSVS programme.

It was recommended that:
- Other potential sources of funds be explored by the programme (including national blanket vaccinations)
- Governments provide own proper budgetary allocations as well as to seek for external funding to the full implementation of national plans (including national blanket vaccinations when relevant)
- ASEAN implement all necessary mechanisms for its Animal Health Trust Fund to become fully operational and the study for reinforcing the bridge between ASEAN and OIE will be launched using OIE resources
- The OIE continues its economical studies on cost benefit of veterinary services in order to demonstrate to policy and decision makers that animal disease prevention is considerably cheaper than crisis

Diagnostic Capabilities and Surveillance

The meeting commented on some problems and lack of diagnostic capability of some countries. It was agreed on the need to combine diagnostic capability with the epidemiological-surveillance design as well as with the policy of governments on this matter in each country. It was also agreed that SEAFMD should develop more disease investigation training programmes. A good example of donor support to improve FMD diagnostics is the collaboration between AAHL and DAH Vietnam in the CARD project in Vietnam.

It was recommended that:
- Donors be encouraged to support capacity building activities for National Laboratories to improve FMD diagnostic capacity
- National Laboratories comply with OIE International Standards as established in OIE Manual for Biological Tests and Vaccines

Free countries/zones

Given progress with the programme it is seen as important that greater emphasize would be given to a range activities associated with free status. They include but are not confined to the provision of practical guidelines on zoning and
achieving free status, the extension or addition of new zones, and special training needs, for example quarantine and specific support from RCU to the design and follow-up of National applications.

It was recommended that:

- Epidemiological surveillance including serology as established in the OIE Code be applied for progressive zoning
- SEAFMD RCU provides the necessary guidance and support to countries when applying for official recognition of FMD Free Status to the OIE. Philippines should be the priority followed by applications for other Zones for Freedom recognition

Research

Priorities on research were stressed. Private vaccine companies (Merial and Intervet) reaffirmed their commitment to finance shipping of samples to OIE reference Laboratories for further research. Research needs to include epidemiology and surveillance design. The necessity of submitting field samples to Reference Laboratories for sequencing to allow epidemiological studies, as well as matching vaccines and vaccines reformulation when necessary was also highlighted.

It was recommended that:

- Countries improve their submission of samples to reference laboratories both for genotyping as well as vaccine matching.
- The meeting endorsed the list of priority research as presented by Dr Abila
- Sharing of relevant information on outbreaks and FMD Virus field strains be encouraged to improve vaccine development and control
- Mechanisms to improve submission of samples (quality and quantity) to reference laboratories be sought

Roles and Relationship between different International and Regional Organisations as well as Private Sector

It was expressed by the meeting that the agreement between FAO and OIE GF TADs both at a Global and Regional level is the proper coordination mechanism, which includes WHO at the global and regional level.

The involvement of the private sector the regional and national level was also raised by the meeting as well as the appropriate choice of representatives using existing organisations of farmers, veterinarians and ASEAN data base.

The concept of One World One Health was commented by several participants concluding that it is an opportunity for Veterinary Services considering their key role when fight zoonotic animal diseases, but it was also expressed there could be risks to avoid which could lead to a kind of dependency from the public health sectors.

The meeting supported the work of the OIE on Animal Production Food Safety and the key role of Veterinary Services at farm level to prevent food safety risks from animal products.

The meeting agreed that the global economic stimulation packages should not jeopardise the provision of resources to Veterinary Services. The economic crisis will increase risks to animal health and therefore Veterinary Services should even more be strengthened rather than limited on their functioning.

It was recommended that:

- The OIE and its members continue the improvement of good governance of Veterinary Services using OIE Standards on quality as well as OIE PVS Tool
- Existing coordination mechanisms such as GF TADS should play a key role as consultative for, as well as defining specific roles and responsibilities of each involved sector or organisation.
- Governments endorse the responsibility of Veterinary Services, by providing all necessary resources and political support on their leading role when fighting animal diseases including the relationship with the public health sector when referring to zoonosis
- Participants of SEAFMD which will attend expert consultation in Winnipeg Meeting on One World One Health next week, actively convey this message
- A study on how to reinforce the bridge between ASEAN and OIE SEAFMD be encouraged
- Relevant representatives of farmers and private veterinarians at a nationals levels be identified as well as using ASEAN database
- Veterinary Services representatives attend Codex meetings in order to bring understanding of the links between animal production and food safety.
SEAFMD neighbouring countries

It was highlighted the importance of the participation and collaboration of SEAFMD neighbouring countries for succeeding in the programme

It was kindly recommended that:
- China be officially incorporated as a member of the SEAFMD programme.

FMD Global Conference in Paraguay

The meeting supported the joint OIE / FAO initiative to start moving towards the Global Control of FMD.

The Global Conference to be held in Asunción, Paraguay, in June 2009, will be a good opportunity to showcase the SEAFMD Roadmap 2020 as a model for other regions, as well as for other diseases. All SEAFMD members and neighbouring countries are urged to participate

It was recommended that:
- The SEAFMD Programme be presented in the Global Conference in Paraguay as a model to be followed in other regions as well as for other diseases.

Plenary Session to Report Outcomes of the Delegates’ and Observers’ Meetings

The discussions and outcomes of the plenary session are incorporated into the above meeting reports.

Field Trip Report

On Thursday 12 March all delegates attended a field trip to the beautiful Mount Kinabalu National Park. The coaches departed from the hotel in the early morning and arrived at the national park in time for participants to visit a local market selling handicrafts before moving to one of the walking routes through the forest at the base of Mount Kinabalu. All participants walked along the trail until reaching the Zoological Gardens. Here, a short presentation on the Fauna and Flora of Mount Kinabalu National Park was shown before proceeding to lunch which was generously hosted by State Government of Sabah, Malaysia.

The field trip provided a unique opportunity to experience some of the natural beauty of Sabah, for which we are extremely grateful to our hosts, the DVS and to the organising committee for arranging a most enjoyable visit.
Progress Report of the Lower Mekong Working Group

Purpose:
To advise the OIE Sub-Commission for FMD in South-East Asia on the work of the Lower Mekong Working Group (LMWG).

Progress:
The 7th Meeting of the Lower Mekong Working Group (LMWG) for Foot and Mouth Disease (FMD) and Animal Movement Management was held from 6 to 7 November 2008 in the beautiful area of Pakse, in Southern Laos.

Crucial issues to progress Foot and Mouth Disease (FMD) zoning in the southern part of Cambodia and Vietnam were lengthily discussed. Vaccination was among they key issue discussed. It was noted that there is a need to review the strategy of FMD vaccination and identify the requirements of Cambodia and Laos. The FAO RAP hired a short term consultant to look into this issue. In terms of encouraging farmers to support vaccination, the recommendation of last year’s LMWG meeting to allow only vaccinated animals for trade was reiterated.

The meeting agreed to review the strategic plan of the LM zoning and examine the options to improve the strategy vis-à-vis the targets of the SEAFMD 2020 roadmap. It was emphasized that the consolidation phase until 2010 is critical to further progress to expansion phase starting 2011. Requirements for achieving the consolidation phase must be examined closely.

Animal movement was also discussed thoroughly and it was recommended to conduct more in-depth study to get a better understanding on the network of trading, particularly to identify major players in livestock trading. The ACIAR project on understanding drivers of animal movement in Cambodia and Laos will be of great help.

It was agreed that these issues will be further discussed in the forthcoming bilateral meeting of DAHP-Cambodia and DAH-Vietnam.

Several presentations were made; progress with the activities of the LMWG during the past 12 months was presented by Dr Abila; Dr Bouchot presented the status of FMD in the LM zone; Ms Hungerford discussed the communication activities, and; Dr Polly Cocks presented Projects on Animal Movements in South-East Asia. Dr Abila also presented the STOP (Superior strategy, Technical capability, Organizational machinery, and Political/stakeholder support) approach in winning the battle against FMD.

Member countries presented the progress in their respective zones. The FMD outbreaks in Vietnam continuously decline, but on the other side in Cambodia an increasing number of outbreaks were noted, caused by serotype O. No outbreak was reported in the southern part of Laos and Region 2 Thailand, satellites zones part of the LM zoning initiatives. Thailand delegate reported that good progress in setting up an FMD free zone in Region 2 with recent approval of 50 Million Baht (USD 1.3 Million) to support the programme. It was requested that OIE SEAFMD provide technical support for the region 2 initiative.

THE SEVENTH MEETING OF THE LOWER MEKONG WORKING GROUP:
1. NOTE the progress report of the member countries and AGREE to explore the increased coordination activities.
2. AGREE to support the STOP (Superior strategy, Technical capability, Organizational machinery, and Political/stakeholders’ support) approach to controlling FMD.
3. AGREE that the RCU facilitate for the provision of expert/s to advise/assist Thailand review the procedure for approaching of FMD free zone with vaccination in Region 2 for recognition of the OIE.
4. AGREE that an Ad Hoc Group, chaired by the RCU, evaluate zoning programme initiatives taking into account the changing patterns of FMD and possible sources of infection, and recommend on future directions for the LMZ to achieve the SEAFMD Consolidation Phase target in 2010.
5. AGREE the RCU participate in the mid-term review development of an FMD vaccination strategy for Cambodia and Lao PDR and in this regard support the work of the FAO Consultant; and RECOMMEND that FAO furnish the RCU and LMWG copies of the report for consideration of the members and in refining the overall SEAFMD vaccination strategy.

6. AGREE to continue to support the animal movement projects of ACIAR, SPSCB, FAO, and others, and SUPPORT the regular exchange of information including feedback, and methodologies utilizing the coordination support of the RCU.

7. AGREE that the RCU examine practical and applied approaches to the management of animal movements and the feasibility of testing such approaches.

8. NOTE the success of the Outbreak Investigation courses implemented in Cambodia, Lao PDR and Vietnam, and AGREE to continue to conduct such training using the revised manual, and where feasible customize the training course to meet the needs and conditions of the member countries.

9. REITERATE the immediate online submission of FMD outbreak reports to the SEAFMD Website through the ARAHIS/WAHIS Regional Core.

10. NOTE that member countries obligation to submit immediate notification and follow up to OIE WAHIS any conditions under the 6 criteria under OIE. (See Annex)

11. ENCOURAGE member countries that have any technical problems encountered in on-line reporting and inform the RCU.

12. NOTE that OIE RCU will conduct the SEAFMD Epidemiology Network meeting in the Philippines in 2009 to review FMD reporting, in-depth analysis of FMD data using advanced epidemiological tools and GIS, to obtain a better understanding on the patterns of FMD in the sub-region and to provide inputs to refine disease control strategies.

13. RECOMMEND that when AusAID funding becomes available, the RCU will obtain an expert to provide epidemiological advice to finalize analysis of FMD in the region.

14. REITERATE the importance of collecting more samples for antigen typing and ENCOURAGE the submission of samples to OIE FMD Reference Laboratory in Pakchong, Thailand.

15. NOTE the continuing reduction of FMD outbreaks in Vietnam, the maintenance of Region 2 in Thailand and the southern part of Lao PDR with no outbreaks; the increasing incidence of outbreaks in Cambodia; and RECOMMEND that immediate assistance be provided in the form of vaccines to control the outbreaks.

16. NOTE that the OIE Sub Regional Representation through the PSVS programme and taking into account the outcomes of the SEAFMD Communication workshop in February 2008 and the OIE Regional Communication workshop in October 2008 will develop a broad-based communication strategy and guidelines to provide guidance to and support the communications needs of the LMWG and other SEAFMD initiatives.

17. NOTE the progress of the MOU between Cambodia and Vietnam on Animal Health Cooperation, and the proposed bilateral meeting between the two countries in December 2008 to refine the protocol for the implementation of the MOU.

18. NOTE that Thailand and Cambodia will discuss issues raised by Dr Kao Phal relating to animal health issues.

19. NOTE the recent adoption of the Livestock Production and Veterinary Law of the Lao PDR and RECOMMEND the RCU to assist Cambodia in developing the Livestock Production and Veterinary Law in collaboration with other partners eg FAO.

20. NOTE progress of the ACIAR project on understanding livestock movement, its developments and future underpinning activities to support SEAFMD Campaign and LMWG activities.

21. NOTE the implementation of the field activities of the EU-SLPP and that it could help underpin SEAFMD Campaign and LMWG activities.
22. THANK AusAID/AAHL Geelong CARD Project for its support to sero-surveillance and capacity building in Vietnam.

23. THANK OIE Asia Pacific and OIE South-East Asia for their continuous support in organizing the Lower Mekong Working Group meetings.

24. THANK Lao PDR Department of Livestock and Fisheries and the Province of Champasak for its hospitality and excellent organization of this meeting.

25. Vietnam to host the next Lower Mekong Working Group Meeting to be held in November, 2009.

Recommendations:

IT IS RECOMMENDED THAT THE 15TH MEETING OF THE OIE SUB-COMMISSION:

NOTE the progress of the FMD zoning and Animal Movement Management in the Lower Mekong Zone and ENDORSE the recommendations of the 7th LMWG Meeting.
Progress Report of the Upper Mekong Working Group

Purpose:
To advise the OIE Sub-Commission for FMD in South-East Asia on the work of the Upper Mekong Working Group (LMWG).

Progress:
The 8th Meeting of the Working Group on Zoning for FMD and Animal Movement Management in the Upper Mekong Region was held in Mangshi, Yunnan Province, People’s Republic of China, from 9 to 11 February 2009.

The main objective of the meeting is to report the progress in establishing FMD control zones in the Upper Mekong. The progress with the implementation of the recommendations from the 7th Meeting was presented. It was mentioned that most of the recommendations were implemented, however there are items that need to be pursued such as the molecular epidemiological studies of FMD strains in the UMZ, assessment of vaccination, and periodic assessment of cross border animal movement.

The status of FMD in 2008 was reviewed. It was noted that provinces in the control zones of the Upper Mekong had only one outbreak for the past year (Xayaboury, Laos); however some areas in the buffer zones not previously affected were hit with FMD in 2008.

The member countries reported their accomplishments in 2008 and their proposed activities in 2009. The progress with the public awareness and communication activities were also reported.

Several organizations/projects presented their on-going activities relevant to the setting up of Upper Mekong FMD zone. Dr Shimohira presented the activities of OIE Asia Pacific and its support to SEAFMD campaign. Dr Carolyn Benigno gave an update of FAO Bangkok activities and Dr Doug Gray presented the progress of the ACIAR activities in the region. Drs Phouth and Axelle reported the progress of the animal movement study in Laos.

Among the major outcomes of the meeting is the drafting of the Strategic Plan for the UM Zone. The participants were divided into groups and brainstormed the draft plan provided by the RCU.

IT WAS RECOMMENDED THAT THE 8TH UMWG MEETING:
1. AGREE that the Upper Mekong Zoning (UMZ) activities are likely to have significant socio-economic benefits; and that on-going efforts be made by RCU and OIE to work with Director Generals, Senior Officials and others to progress zonal activities.
2. AGREE to finalise the UMZ Strategic Plan by July 2009 and commence immediate implementation, noting that this will be a living document.
3. AGREE that members progress through their country decision making mechanisms agreement on signing the proposed MOU at the OIE Regional Meeting in Shanghai in November, 2009, and ENDORSE the transition of the UM Working Group to Commission status subject to endorsement by OIE and partners.
4. ENCOURAGE the inclusion of UMZ activities in the agendas of country bilateral meetings.
5. AGREE that a socio economic study be undertaken to demonstrate potential benefits of the Programme.
6. AGREE that, given AusAID funding appears secured, that the SEAFMD Regional Coordinator (RC) take immediate steps to review UMZ activities including meeting with officials, industry, and other relevant groups e.g. FAO, and provide advice and recommendations on improvements needed to meet programme objectives.
7. AGREE that member countries explore the possibility of sharing resources at border posts and in other areas, and where possible include the matter in bilateral discussions.
8. NOTE the improvements in the FMD status of the Control Zone in 2008, with only one outbreak (Xayaboury).
9. AGREE that surveillance and reporting need to be enhanced; and NOTE that the SEAFMD EpiNet workshop in the Philippines on 16-17 February 2009 will make detailed recommendations on ways to improve shortcomings.

10. NOTE FAO measures to channel reagents needed by countries to RRL Pakchong to support routine diagnostic work and inter-laboratory testing.

11. NOTE the results of the FAO vaccine studies in the Lower Mekong Zone and request the RC to examine the applicability of outcomes of the study to the UMZ.

12. AGREE that RC explore with FAO extending the FMD vaccine study to the Upper Mekong Zone.

13. AGREE Members, at future Meetings, report on Zone activities rather than providing whole country reports.

14. NOTE developments and progress with the ACIAR project on Understanding Livestock Movement (ULM), and NOTE that, although this is primarily a research project, the outputs of the work are expected to have practical and applied applicability to animal movement management generally.

15. AGREE that, given the significant overlaps between the information needs of the UMWG in the proposed logframe and the research objectives of the ACIAR Project on ULM, the RC and ACIAR Project Leader consult every six months on the Project Plan and results.

16. AGREE that, in view of the range of livestock movement projects being undertaken in the Sub Region, the RC with ACIAR, FAO and others, seek to organize a Strategic Workshop on Animal Movement to, inter alia, improve knowledge and understanding of livestock movement project work, linkages to disease risk, and harmonization of activities.

17. AGREE that the recommendations of the 8th Meeting of the UMWG be taken to the 15th Sub-Commission Meeting in Sabah, Malaysia in March 2009 for discussion/support.

18. THANKS OIE Asia Pacific (Japan Trust Fund) and SEAFMD RCU (AusAID) for their generous support for this meeting.

19. CONGRATULATES the officials and staff of the of the Veterinary Bureau of the Ministry of Agriculture, People’s Republic of China, and in particular the Yunnan Provincial Department of Agriculture, Yunnan Academy of Animal Science and Veterinary, Yunnan Tropical and Subtropical Animal Viral Disease Laboratory, and the People’s Government of Dehong Dai Ethnic and Jingpo Ethnic Autonomous Prefecture, for their hospitality and excellent organization of this meeting.

20. RECOMMENDS that Vietnam host the 9th UMWG / 1st UM Commission Meeting in February 2010.

Recommendations:

IT IS RECOMMENDED THAT THE 15TH MEETING OF THE OIE SUB-COMMISSION:

NOTE the progress of the FMD zoning and Animal Movement Management in the Upper Mekong Zone and ENDORSE the recommendations of the 8th UMWG Meeting.
Appendix XXII

Progress of the Malaysia-Thailand-Myanmar (MTM) Campaign for FMD Freedom

The 9th Meeting of the MTM Tri-State Commission was held in Bangkok, Thailand, from 30 June to 1 July 2008. The meeting consisted of member country presentations on FMD status and related activities; presentations from partner organisations and a broad view of the FMD status in the MTM Zones and progress of the MTM Campaign. A workshop was dedicated to considering ways of progressing the MTM Campaign towards a target of 2012 for freedom from FMD with or without vaccination. The meeting was well attended by regional and international organisations and strong member country participation.

The 9th Meeting of the MTM Tri-State Commission discussed in-depth on how to progress the MTM Campaign towards its target as an FMD free zone by 2012. The challenges of the MTM Campaign were recognised in that the zone represents a major transit and destination point for livestock moving towards the high value markets of Peninsula Malaysia, bringing with it an on-going risk of disease incursions. The meeting considered how this challenge could best be addressed, recognising the existing demands for livestock in the MTM zones of Malaysia and Thailand.

It was shown that FMD outbreaks are continuing to occur in the MTM zones of Malaysia and Thailand, and that there were two outbreaks in the Buffer Zone of Myanmar in 2007. A current weakness in outbreak investigation and rapid response was recognised and some discussion was dedicated to strengthening this capacity through training and, potentially increased coordination both within the veterinary services and with other stakeholders.

A workshop was held in which two groups, composed of representatives from each member country and other organisations considered how the MTM Campaign might be moved forward in order to meet the target set out by the SEAFMD 2020 Roadmap of freedom from FMD by 2012. Some important outcomes of the workshop included: further engagement of stakeholders, particularly the private sector; addressing FMD at source as a means of reducing outbreaks in the MTM Zones; research into vaccination strategies; and development of a standardised import protocol amongst the member countries.

Addressing FMD at source was a major discussion point, leading to a number of recommendations. A major source of livestock to the MTM zones is believed to be from the Central Myanmar Plateau, where FMD is endemic. It was determined that this area, including Sagaing, Mandalay and Magway, should be considered for establishment of an FMD control zone. SEAFMD will support a feasibility study in this area as soon as possible, and it is expected that control of FMD in this region could have important consequences for the MTM zones and represent a safe source of livestock for trading with Thailand and Malaysia.

The MTM EpiNet provided recommendations to the Tri-State Commission based on discussions from the MTM EpiNet meeting on June 29th, 2008. These recommendations were all endorsed by the Tri-State commission and included categories such as: amendment of the MTM Standard Definitions and Rules; sample submission; animal movements and investigation of outbreaks.

The meeting was highly productive and is expected to result in some increased activity in both the short and long term, with a feasibility study planned for the Central Myanmar Plateau; a trader meeting expected to be held later in 2008; on-going research into the risk pathways of livestock movement in the MTM; training in outbreak investigation; and member countries continuing to build on cross-border cooperation to address livestock movements.

IT WAS RECOMMENDED THAT THE MTM TRISTATE COMMISSION:

Commitment, Policy and legislation

1. NOTE the continuing commitment of member countries to progress the MTM Campaign and AGREE to explore the increased coordination activities.
2. NOTE the workshop groups’ presentation to achieve FMD Freedom in the MTM.
3. AGREE that member countries exert efforts to achieve the MTM objective of FMD Freedom by 2012, following the strategies laid down in the SEAFMD 2020 Roadmap.
4. AGREE that, taking into account the changing patterns and possible source of infection, examine the MTM programmes and strategies with the view with, inter alia, that MTM TSC will examine the situation in 2009 to determine future directions of achieving 2012 target.
5. NOTE that the new protocol to manage the official trade of livestock and livestock products among Malaysia, Thailand and Myanmar is being developed to manage increase number of movements.

**Implementation of agreed strategies for control and eradication of FMD in MTM Zone**

6. ENDORSE the report and recommendations of the MTM Epidemiology Network (EpiNet) Meeting on 29 June 2008.

7. ENDORSE the revised MTM Minimum Standards, Definitions and Rules (SDR), noting the changes referring to surveillance activities in accordance with the current version of the OIE Terrestrial Animal Health Code.

8. RECOMMEND member countries to increase the number of samples sent to the Regional Reference Laboratory (RRL) for confirmatory testing and/or for sequencing work. Existing protocols should be followed for sample submission to RRL.

9. NOTE that most of the FMD outbreaks were caused by indigenous FMD virus serotypes in South-East Asia. ENCOURAGE members to continue to be vigilant to detect early any incursion of exotic serotypes (eg. Pan Asia O II, Cathay O, other lineages of Asia 1).

10. RECOMMEND that policy makers consider the impacts of controlling animal movement in terms of changing patterns in response to more stringent controls and note the need to develop harmonised control measures.

11. NOTE the training on outbreak investigation to be conducted by EpiNet with support from DAFF/SPSCB Project. RECOMMEND that after the training, MTM EpiNet members to develop a case-study of outbreak investigations for presentation in the MTM TSC / EpiNet meeting.

12. AGREE to the importance of carrying out sequencing work, follow up investigations and sharing of information between MTM members.

13. EXPLORE the possibility of organizing other training programmes (surveillance, risk analysis and zoning) utilising the module developed by AusVet under the DAFF/SPSCBP.

14. RECOMMEND that member countries consider the surveillance system currently in place in each member country, identify gaps in the system and build upon this to strengthen the system.

15. NOTE the significant reduction of FMD outbreaks in Regions 8 and 9 in Thailand after instituting blanket vaccination in 2006 and onwards.

**Communications and public awareness**

16. NOTE the initial development of a communication strategy for the MTM

17. ENCOURAGE the strengthening of the communication network and public awareness campaign. RECOMMEND to conduct FMD seminar/s and workshops to increase awareness of stakeholders on FMD and the MTM Campaign.

18. ENCOURAGE private sector contributions to MTM Campaign Communications and Public Awareness materials.

**Research and Development**

19. RECOMMEND to MTM EpiNet/AusAID SPSCB Project to prioritize full pathway risk analysis studies from the source of animals to the MTM Zone. ENCOURAGE member countries to involve their experts to assist in developing this risk analysis study.

20. SUPPORT research on the possible role of persistently infected/carriers in the spread of FMD.

21. NOTE the validation on NSP testing in goats has been carried out.

**Industry Development**

22. NOTE the support of private sector in building infrastructures (private quarantine stations) to support government initiatives to reduce risks of FMD incursion to MTM zones.

23. AGREE that a private sector meeting of the MTM countries to be held before the 10th MTM TSC Meeting and NOTE that private sector meetings of the Mekong countries will also be held.

**Integrated approach to resourcing including regional cooperation and international support**

24. EXPLORE opportunities to source funding from other donors to support the initiatives of the MTM Campaign.

25. NOTE that SEAFMD RCU will fund a feasibility study in controlling FMD in Sagaing, Mandalay and Magway, as part of the MTM TSC concerns to look at beyond the MTM zones to be effective in controlling FMD.

26. ENCOURAGE private sector contributions to MTM Campaign; specifically examine the feasibility of setting up levy system on the trade of livestock.
Monitoring and evaluation

27. REPORT on the MTM Campaign progress to the OIE SEAFMD Sub-Commission and the ASWGL.
28. THANK OIE SEAFMD RCU, DAFF/SPSCB Project and Murdoch University in organising this meeting.
29. THANK the staff from the Department of Livestock Development (DLD) for their excellent hospitality and for a successful and well organized 9th MTM TSC Meeting.
30. THANK JICA, NAIH Japan and FAO for their contribution to MTM.
31. NOTE that the 10th MTM TSC meeting will be held in Myanmar in June 2009.

Recommendations:

IT IS RECOMMENDED THAT THE 15TH MEETING OF THE OIE SUB-COMMISSION:

   NOTE the progress of the MTM Campaign and
   ENDORSE the recommendations of the 9th MTM TSC Meeting.
Progress Report of the SEAFMD Epidemiology Network (EpiNet)

Purpose:

To advise the OIE Sub-Commission for FMD in South-East Asia on the work of the SEAFMD Epidemiology Network (EpiNet).

Progress:

The SEAFMD Epidemiology Network (EpiNET) Meeting was held in Manila, Philippines, on 16-17 February 2009, to discuss several issues pertaining to FMD outbreak reporting. This activity is in compliance with the recommendations from the 14th Sub-Commission meeting. The meeting discussed the existing FMD reporting system. It was emphasized that members should comply with their obligations to OIE report within 24 hours any outbreak of FMD that falls under the category for Emergency Report (e.g. outbreak of new serotype, changes in the epidemiology of the disease, etc.). Emergency Report should be submitted online using WAHIS. For routine reporting in endemic situation, the SEAFMD Campaign has established a link with the WAHIS Regional Core for ASEAN/ARAHIS for online reporting FMD outbreaks. Member’s are encourage to use this system so that the existing submission of monthly paper reports to RCU can be replaced with online reporting.

IT WAS RECOMMENDED THAT THE SEAFMD EPINET MEETING:

1. NOTE the advantage of online FMD reporting through OIE WAHIS and WAHIS Region Core for ASEAN / ARAHIS and AGREE that member countries will regularly update FMD data on these systems.

2. NOTE the obligation of members to submit emergency reports to OIE WAHIS for FMD outbreaks that meet the criteria for emergency reporting (e.g. occurrence of new strain, change in the epidemiology, etc.), and EMPHASIZE the importance of submitting a final report to close the event.

3. NOTE the presentations on the analysis of five year FMD status of member countries and AGREE that future presentations will take into account the use point location for spatial distribution and the number of outbreaks for temporal distribution.

4. AGREE to clean up erroneous entries of FMD data in the ARAHIS/WAHIS Regional Core and harmonize the data kept by the RCU vis-à-vis the data from member countries.

5. REITERATE the application of the SEAFMD definition of FMD case and outbreak in reporting FMD status.

6. AGREE to conduct more detailed analysis on the spatial and temporal distributions of the different FMD serotypes and topotypes in the region. RECOMMEND harmonization of identifying samples submitted to laboratories with outbreaks ID.

7. AGREE to conduct more detailed outbreak investigations and write a paper on some of these investigations that can be developed into case studies for possible publications in scientific journals.

8. ENCOURAGE FMD free country (Indonesia) and countries with FMD free zones (Malaysia and Philippines) to test their emergency preparedness programmes by conducting simulation exercises and conduct economic impact assessment to estimate losses in case of an FMD outbreak.

9. RECOMMEND to conduct outbreak investigation training for field staff.

10. RECOMMEND to RCU to organize a training on GIS (using free software such as Q-GIS), in collaboration with FAO and other animal health programmes in the region.

11. RECOMMEND to organize an annual meeting of the SEAFMD EpiNet, the date and venue to be arranged by the RCU in consultation with members.

12. THANK the staff of the Bureau of Animal Industry – FMD Task Force for their warmth hospitality and excellent organization of this meeting.
Recommendations:
IT IS RECOMMENDED THAT THE 15TH MEETING OF THE OIE SUB-COMMISSION:

NOTE the progress of the FMD zoning and Animal Movement Management in the Lower Mekong Zone and
ENDORSE the recommendations of the 7th LMWG Meeting.
Appendix XXIV

9th Meeting of the Tristate Commission on the Establishment of the Malaysia-Thailand-Myanmar (MTM) Peninsular Campaign for Freedom

Bangkok, Thailand, 30 June – 1 July 2008

Draft Recommendations

IT WAS RECOMMENDED THAT THE MTM TRISTATE COMMISSION:

Commitment, Policy and legislation

1. NOTE the continuing commitment of member countries to progress the MTM Campaign and AGREE to explore the increased coordination activities.

2. NOTE the workshop groups’ presentation to achieve FMD Freedom in the MTM.

3. AGREE that member countries exert efforts to achieve the MTM objective of FMD Freedom by 2012, following the strategies laid down in the SEAFMD 2020 Roadmap.

4. AGREE that given the changing trade patterns and potential source of infection, the MTM programme be reviewed and a report made to the 10th MTM meeting on matters including target dates and recommended future strategies.

5. NOTE new protocols to manage official trade of livestock and livestock products among Malaysia, Thailand and Myanmar are being developed to manage increased movements.

Implementation of agreed strategies for control and eradication of FMD in MTM Zone

6. ENDORSE the report and recommendations of the MTM Epidemiology Network (EpiNet) Meeting on 29 June 2008.

7. ENDORSE the revised MTM Minimum Standards, Definitions and Rules (SDR), noting the changes referring to surveillance activities in accordance with the current version of the OIE Terrestrial Animal Health Code.

8. RECOMMEND member countries to increase the number of samples sent to the Regional Reference Laboratory (RRL) for confirmatory testing and/or for sequencing work. Existing protocols should be followed for sample submission to RRL.

9. NOTE that most of the FMD outbreaks were caused by indigenous FMD virus serotypes in Southeast Asia. ENCOURAGE members to continue to be vigilant to detect early any incursion of exotic serotypes (eg. Pan Asia O II, Cathay O, other lineages of Asia 1).

10. RECOMMEND that policy makers consider the impacts of controlling animal movement in terms of changing patterns in response to more stringent controls and note the need to develop harmonised control measures.

11. NOTE the training on outbreak investigation to be conducted by EpiNet with support from DAFF/SPSCB Project. RECOMMEND that after the training, MTM EpiNet members to develop a case-study of outbreak investigations for presentation in the MTM TSC / EpiNet meeting.

12. AGREE to the importance of carrying out sequencing work, follow up investigations and sharing of information between MTM members.

13. EXPLORE the possibility of organizing other training programmes (surveillance, risk analysis and zoning) utilising the module developed by AusVet under the DAFF/SPSCBP.

14. RECOMMEND that member countries consider the surveillance system currently in place in each member country, identify gaps in the system and build upon this to strengthen the system.

15. NOTE the significant reduction of FMD outbreaks in Regions 8 and 9 in Thailand after instituting blanket vaccination in 2006 and onwards.
Communications and public awareness

16. NOTE the initial development of a communication strategy for the MTM

17. ENCOURAGE the strengthening of the communication network and public awareness campaign. RECOMMEND to conduct FMD seminar/s and workshops to increase awareness of stakeholders on FMD and the MTM Campaign.

18. ENCOURAGE private sector contributions to MTM Campaign Communications and Public Awareness materials.

Research and Development

19. RECOMMEND to MTM EpiNet/AusAID SPSCB Project to prioritize full pathway risk analysis studies from the source of animals to the MTM Zone. ENCOURAGE member countries to involve their experts to assist in developing this risk analysis study.

20. SUPPORT research on the possible role of persistently infected/carriers in the spread of FMD.

21. NOTE the validation on NSP testing in goats has been carried out.

Industry Development

22. NOTE the support of private sector in building infrastructures (private quarantine stations) to support government initiatives to reduce risks of FMD incursion to MTM zones.

23. AGREE that a private sector meeting of the MTM countries to be held before the 10th MTM TSC Meeting and NOTE that private sector meetings of the Mekong countries will also be held.

Integrated approach to resourcing including regional cooperation and international support

24. EXPLORE opportunities to source funding from other donors to support the initiatives of the MTM Campaign.

25. NOTE that SEAFMD RCU will fund a feasibility study in Sagaing, Mandalay and Magway, as to examine controlling FMD at source.

26. ENCOURAGE private sector contributions to MTM Campaign, specifically examine the feasibility of setting up a levy system on the trade of livestock.

Monitoring and evaluation

27. REPORT on the MTM Campaign progress to the OIE SEAFMD Sub-Commission and the ASWGL.

28. THANK OIE SEAFMD RCU, DAFF/SPSCB Project and Murdoch University in organising this meeting.

29. THANK the staff from the Department of Livestock Development (DLD) for their excellent hospitality and for a successful and well organized 9th MTM TSC Meeting.

30. THANK JICA, NAIH Japan and FAO for their contribution to MTM.

31. NOTE that the 10th MTM TSC meeting will be held in Myanmar in June 2009.
7th Meeting of the Lower Mekong Working Group on FMD Zoning and Animal Movement Management

Pakse, Laos, 6–7 November 2008

Draft Recommendations

THAT THE SEVENTH MEETING OF THE LOWER MEKONG WORKING GROUP:

1. NOTE the progress report of member countries and AGREE to explore improved coordination activities.

2. AGREE to support the STOP (Superior strategy, Technical capability, Organizational machinery, Political and stakeholders’ support) approach to controlling FMD.

3. AGREE that the RCU facilitate the provision of expert/s to advise/assist Thailand review its procedures for achieving FMD free zone status with vaccination in Region 2 for recognition by the OIE.

4. AGREE that an ad hoc Group, chaired by the RCU, evaluate zoning programme initiatives taking into account the changing patterns of FMD and possible sources of infection, and recommend on future directions for the LMZ to achieve the SEAFMD Consolidation Phase target in 2010.

5. AGREE the RCU participate in the mid term review of Vietnam’s FMD programme

6. AGREE to the development of an FMD vaccination strategy for Cambodia and Lao PDR and in this regard support the work of the FAO Consultant; and RECOMMEND that FAO furnish the RCU and LMWG copies of the report for consideration of the members and in refining the overall SEAFMD vaccination strategy.

7. AGREE to support the animal movement projects of ACIAR, SPSCB, FAO, and others, and the regular exchange of information including feedback, and methodologies utilizing the coordination support of the RCU.

8. AGREE that the RCU examine practical and applied approaches to the management of animal movements and the feasibility of testing such approaches.

9. NOTE the success of the Outbreak Investigation courses implemented in Cambodia, Lao PDR and Vietnam, and AGREE to continue such training using the revised manual; and where feasible customize the training course to meet the needs and conditions of member countries.

10. REITERATE the need for immediate online submission of FMD outbreak reports to the SEAFMD Website through the ARAHIS/WAHIS Regional Core.

11. NOTE member country obligations to submit immediate notification and follow up to OIE WAHIS criteria under (See Annex ? for WAHIS conditions and criteria)

12. ENCOURAGE member countries that experience problems in on-line reporting to inform the RCU.

13. NOTE that the RCU will conduct a SEAFMD Epidemiology Network meeting in the Philippines in 2009 to review FMD reporting, in-depth analysis of FMD data using advanced epidemiological tools and GIS, in order to obtain a better understanding of the patterns of FMD in the sub-region, and to provide inputs to refine disease control strategies.

14. RECOMMEND that, when AusAID funding becomes available, the RCU hire an expert to provide epidemiological analysis of FMD in the Region using available data.

15. REITERATE the importance of collecting more samples for antigen typing and ENCOURAGE the submission of samples to OIE FMD Reference Laboratory in Pakchong, Thailand.

16. NOTE the continuing reduction of FMD outbreaks in Vietnam; the maintenance status of Region 2 in Thailand and the southern part of Laos PDR where there were no outbreaks; the increasing incidence of outbreaks in Vietnam; and the maintenance status of Region 2 in Thailand and the southern part of Laos PDR where there were no outbreaks; the increasing incidence of outbreaks in

SEAFMD 15th Sub-Commission Meeting, Kota Kinabalu, Malaysia
Cambodia; and RECOMMEND that immediate assistance be provided in the form of vaccines to control the outbreaks.

17. NOTE that the OIE Sub Regional Representation through the PSVS programme taking into account the outcomes of the SEAFMD Communication workshop in February 2008 and the OIE Regional Communication workshop in October 2008, will develop a broad-based communication strategy to provide guidance to, and support the communications needs of the LMWG and SEAFMD programmes.

18. NOTE the progress of the MOU between Cambodia and Vietnam on Animal Health Cooperation, and the proposed bilateral meeting between the two countries in December 2008 to refine the protocol for the implementation of the MOU.

19. NOTE that Thailand and Cambodia will discuss issues raised by Dr Kao Phal relating to animal health matters.

20. NOTE the recent adoption of the Livestock Production and Veterinary Law of the Lao PDR and RECOMMEND the OIE assist Cambodia in developing a Livestock Production and Veterinary Law in collaboration with other partners e.g. FAO.

21. NOTE progress of the ACIAR project on livestock movement, which will help underpin SEAFMD and LMWG activities.

22. NOTE the implementation of the field activities of the EU-SLPP which could also underpin SEAFMD Campaign and LMWG activities.

23. THANK AusAID/AAHL Geelong CARD Project for its support to sero-surveillance and capacity building in Vietnam.

24. THANK OIE Asia Pacific and OIE Southeast Asia for their continuous support in organizing the Lower Mekong Working Group meetings.

25. THANK Lao PDR Department of Livestock and Fisheries and the Province of Champasak for their hospitality and excellent organization of the meeting.

26. AGREE that Vietnam host the next Lower Mekong Working Group Meeting in November 2009.
Appendix XXVI

8th Meeting of the Working Group on Zoning for Foot and Mouth Disease and Animal Movement Management in the Upper Mekong Region

Mangshi, Yunnan, People’s Republic of China, 9–11 February 2009

Draft Recommendations

Preamble

The 8th UMWG Meeting was essentially a stocktake of Programme activities with the sharing of information and provision of advice for future work.

On the positive side it is clear that a sound framework has been established with effective coordination arrangements. There is general support and goodwill for the Programme. Further there is general agreement on a way forward.

However work needs to be carried out to refine and progress the Programme if it is to succeed. Such work includes refining field elements in an inclusive way, re-affirming high level support, and re-enforcing the message that the Programme, if successful, will provide major socio economic benefits to the countries involved.

The recommendations from the Meeting are practical and achievable, and it is anticipated that greater efforts will now be made to progress the Programme over the next 12 months given AusAID funding appears likely.

Strategic

1. AGREE that the Upper Mekong Zoning (UMZ) activities are likely to have significant socio-economic benefits; and that on-going efforts be made by RCU and OIE to work with DGs, Senior Officials and others to progress zonal activities.

2. AGREE to finalise the UMZ Strategic Plan by July 2009 and commence immediate implementation, noting that this will be a living document

3. AGREE that members progress through their country decision making mechanisms agreement on signing the proposed MOU at the OIE Regional Meeting in Shanghai in November, 2009, and ENDORSE the transition of the UM Working Group to Commission status subject to endorsement by OIE and partners

4. ENCOURAGE the inclusion of UMZ activities in the agendas of country bilateral meetings

5. AGREE that a socio economic study be undertaken to demonstrate potential benefits of the Programme

Operational

6. AGREE that, given AusAID funding appears secured, that the SEAFMD Regional Coordinator (RC) take immediate steps to review UMZ activities including meeting with officials, industry, and other relevant groups e.g. FAO, and provide advice and recommendations on improvements needed to meet programme objectives.

7. AGREE that member countries explore the possibility of sharing resources at border posts and in other areas, and where possible include the matter in bilateral discussions.

Technical

8. NOTE the improvements in the FMD status of the Control Zone in 2008, with only one outbreak (Xayaboury).

9. AGREE that surveillance and reporting need to be enhanced; and NOTE that the SEAFMD EpiNet workshop in the Philippines on 16-17 February 2009 will make detailed recommendations on ways to improve shortcomings.

10. NOTE FAO measures to channel reagents needed by countries to RRL Pakchong to support routine diagnostic work and inter-laboratory testing.

11. NOTE the results of the FAO vaccine studies in the Lower Mekong Zone and request the RC to examine the applicability of outcomes of the study to the UMZ.

SEAFMD 15th Sub-Commission Meeting, Kota Kinabalu, Malaysia
12. AGREE that RC explore with FAO extending the FMD vaccine study to the UMZ.

13. AGREE Members, at future Meetings, report on Zone activities rather than providing whole country reports.

**Livestock movement**

14. NOTE developments and progress with the ACIAR project on Understanding Livestock Movement (ULM), and NOTE that, although this is primarily a research project, the outputs of the work are expected to have practical and applied applicability to animal movement management generally.

15. AGREE that, given the significant overlaps between the information needs of the UMWG in the proposed logframe and the research objectives of the ACIAR Project on ULM, the RC and ACIAR Project Leader consult every six months on the Project Plan and results.

16. AGREE that, in view of the range of livestock movement projects being undertaken in the Sub Region, the RC with ACIAR, FAO and others, seek to organize a Strategic Workshop on Animal Movement to, inter alia, improve knowledge and understanding of livestock movement project work, linkages to disease risk, and harmonization of activities

**Next steps**

17. AGREE that the recommendations of the 8th Meeting of the UMWG be taken to the 15th Sub-Commission Meeting in Sabah, Malaysia in March 2009 for discussion/support.

**Acknowledgements**

18. THANKS OIE Asia Pacific (Japan Trust Fund) and SEAFMD RCU (AusAID) for their generous support for this meeting.

19. CONGRATULATES the officials and staff of the Veterinary Bureau of the Ministry of Agriculture, PR China, and in particular the Yunnan Provincial Department of Agriculture, Yunnan Academy of Animal Science & Veterinary, Yunnan Tropical and Subtropical Animal Viral Disease Laboratory, and the People’s Government of Dehong Dai Ethnic and Jingpo Ethnic autonomous Prefecture, for their hospitality and excellent organization of this meeting.

20. RECOMMENDS that Vietnam host the 9th UMWG / 1st UM Commission Meeting in February 2010.