Report of the 13th Meeting of the OIE Sub-Commission for Foot and Mouth Disease in Southeast Asia

Siem Reap, Cambodia
12-16 March 2007
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The 13th Meeting of the OIE Sub-Commission for FMD in Southeast Asia was held in Siem Reap, Cambodia, from 12 to 16 March 2007.

Approximately 80 people attended the opening ceremony and the guests included: H.E. Chan Tong Yves, Secretary of State, Ministry of Agriculture, Forestry and Fisheries; H.E. Mao Vuthy, Deputy Governor of Siem Reap Province; Dr Kao Phal, Director of the Department of Animal Health and Production; Dr Bernard Vallat, Director-General for the World Organisation for Animal Health (OIE); and Dr Gardner, Murray President of the OIE Sub-Commission for Foot and Mouth Disease. Other attendees included representatives of member countries and observers from other countries, international agencies, the private sector and the host country.

The business and technical program was chaired by the President Dr Gardner Murray, Vice President Dr Chaweewan Leowijuk and National Coordinators. The members reported progress and plans for future activities against the eight components of the SEAFMD Campaign, which are: 1) International cooperation; 2) Program 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.

The meeting endorsed 48 major statements and recommendations. The summary, the full report and recommendations are also available on the SEAFMD website (www.seafmd-rcu.oie.int).

Related meetings were held before and during the meeting to progress SEAFMD business. These included meetings of the Steering Committee, the National Coordinators; OIE Avian Influenza; and Strengthening Veterinary Services.

The meeting acknowledged that considerable progress had been made by member countries and the RCU in implementing the objectives of the SEAFMD Strategic Plan and the Work Plan for 2006/07. The main achievements included progression of the transition to ASEAN responsibility; progress to establishment of the ASEAN Animal Health Trust Fund; agreement with Australia through AusAID to extend funding until the end of December 2007; good progress with the progressive zoning approach; strong activity by the working groups/commissions for MTM, UMWG, LMWG and Myanmar Zoning Working Group; alignment of activities by other agencies to support the progressive zoning approach; the continuation of the regional secondment program; the appointment of Ms Nichola Hungerford as Communication Officer of the SEAFMD Campaign; completion of surveillance projects in the Upper and Lower Mekong zones; the setting up of the MTM Epidemiology Network (MTM EpiNet); the strengthening of the SEAFMD Laboratory Network (LabNet) and application to OIE for the twinning arrangement of the RRL, Pak Chong and AAHL, Geelong; capacity building on disease surveillance and public awareness; and further engagement of the private sector with particular emphasis on traders.

A major document endorsed during the meeting is the SEAFMD 2020 Roadmap, which will provide long-term strategic directions to progressively achieve FMD freedom with vaccination by year 2020.

International observers were impressed by the achievements of the SEAFMD Campaign, member country commitment and growing support from international agencies and the involvement of the private sector. This encouraged them to suggest ways to increase the external support for the SEAFMD Campaign and funding for Phase III. The Meeting recommended seeking funding for the continued functioning of the RCU and SEAFMD program for the period 2008-2010.

The meeting thanked the Governments of Cambodia and Siem Reap Province, the Department of Animal Health and Production and the Regional Coordination Unit for their good work in making the meeting so successful.

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1 ASEAN: Association of South-East Asian Nations
2 AusAID: Australian Agency for International Development
3 MTM: Malaysia–Thailand–Myanmar
4 UMWG: Upper Mekong Working Group
5 LMWG: Lower Mekong Working Group
6 AAHL: Australian Animal Health Laboratory
Component 1: International Coordination and Support

1. NOTE the activities in 2006, and in particular the progress in the following areas:
   a. the provision of resources that will enable the RCU to continue in its activities in 2007;
   b. developments in progressive zoning, in particular the MTM project and its epidemiological network;
   c. enhanced sero-surveillance programmes;
   d. training in disease investigation including sample submission;
   e. improved communication arrangements; and
   f. facilitating constructive cooperation with industry.

2. AGREE to continue to work to enhance cooperation with neighbouring countries.

3. NOTE that some contributions have been received into the AAHTF but that it is unlikely that ASEAN can take on a greater responsibility for the management SEAFMD on 1 January 2008.

4. AGREE that the RCU, with support from the OIE Central Bureau and member countries, seek funding for the continued functioning of the RCU and SEAFMD program for the period 2008-2010.

5. AGREE that the current organizational arrangements remain in place to ensure the continued coordination of the programme by the RCU, and AGREE that it continues to operate at the DLD Office in Bangkok.

6. AGREE to pursue the process for the transition to ASEAN as the AAHTF becomes more operational.

7. NOTE the continuous support from FAO to SEAFMD Campaign and its significant role in the control of FMD and other transboundary animal diseases in SE Asia and URGE FAO to continue to support the programme.

8. NOTE that the OIE Regional Commission for Asia, the Far East and Oceania, is a formal regional organisation with official country membership, rules endorsed by the OIE International Committee supported by OIE representation in offices located in the region with financial support for the SEAFMD programme coming from a 10% contribution from member countries as well as donor grants.

9. THANKS AusAID-Australia, New Zealand, France, Japan, Thailand, OIE Tokyo, FAO, JICA, and other donors and organizations for their support and contributions to SEAFMD Campaign.

Component 2: Programme Management, Resources, and Funding

10. NOTE the member country status reports, and AGREE that priority issues identified by member countries be included in their country work plans.

11. AGREE that the RCU consolidate member country national plans for the period 2007-2010, based on update submitted by member countries.

12. AGREE that practical and applied emergency management measures be developed for use, as need arises, by SEAFMD members including training, documentation and vaccine supply.

13. AGREE that the Regional Coordinator prepare a detailed operational budget for the years 2008-2010, breaking it down into operational/support costs, project activities, and those provided by the DLD, and submit to prospective donors.

14. AGREE to the refinement of SEAFMD 2020 Roadmap with the objective of having it approved at the OIE General Session in May 2007 in accordance with the recommendations of the National Coordinators’ and Observers’ meetings.

15. REQUEST FAO to mobilize FAO Trust Funds and Regular Programmes to increase its support to SEAFMD objectives.

Component 3: Public Awareness and Communication

16. NOTE the Draft Regional Communication Plan from 2007-2010 and RECOMMEND its further refinement based on comments from member countries.

17. RECOMMEND the RCU coordinate with member countries, the production of public awareness templates.

18. SUPPORT the planned upgrading of the SEAFMD Website.
Component 4: Disease Surveillance, Diagnosis Reporting and Control

19. NOTE the “Twinning” laboratory proposal between AAHL-Geelong and RRL-Pak Chong, and the intention of RRL to apply to OIE for FMD Reference Laboratory Status in 2008/2009.

20. NOTE the successful meeting of SEAFMD Laboratory Network as supported by AusAID and FAO regular program, and ENDORSE its major recommendations:
   a. Conduct an inter-laboratory testing program, consisting of at least one round in 2007;
   b. Agreed procedures for maintaining internal quality control (IQC) be followed by all FMD network laboratories;
   c. Support training programs for staff from member countries at the RRL or in member country laboratories by a visiting expert;
   d. FMD free countries maintain a capability for FMD antigen detection ELISA.

21. NOTE the discussions made on the preliminary work on FMD vaccine banks, and AGREE that activities in this area must be consistent with OIE policies on FMD vaccine banks.

22. RECOMMEND that the RCU conduct further analysis of SEAFMD database to correlate it with data on genetic sequence analysis by RRL and WRL, and risk map analysis on serotype distribution.

23. NOTE the successful implementation of FAO/ADB and French Government funded sero-surveillance in Upper (Lao PDR, Thailand and Viet Nam) and Lower (Cambodia) Mekong Zones.

24. NOTE the significant epidemiological changes of FMD serotypes in the Region and ASSESS their evolution, risks and institute measures to control its spread.

25. NOTE the socio-economic studies being conducted in Viet Nam on the impact of the FMD epizootic in 2006 and, that results will be made available by FAO/ADB Project to SEAFMD members in the near future.


27. NOTE the nature and value of the preliminary results of the FAO-ADB/France sero-surveillance programme in the Upper and Lower Mekong Zones and, AGREE that on the basis of comments and lessons learned from this exercise, future programmes be refined to facilitate improved epidemiological analysis.

28. AGREE that the RCU explore with FMD free countries that have FMD vaccine banks, the possibility of donating to SEAFMD countries some vaccine to support emergency management situations.

29. AGREE that the RCU purchase a minimal amount of FMD vaccines to assist countries which do not have the ready access to vaccines to manage emergency situations; and, that the RCU develop rules of allocation, storage and supply.

30. RECOMMEND that a greater effort be placed on making existing diagnostic tests more affordable and user-friendly.

31. RECOMMEND that more antigenic and genetic characterization should be carried out particularly in Cambodia and Myanmar.

Component 5: Policy, Legislation, and Standards to Support Disease Control and Zone Establishment

32. AGREE to develop model animal health legislation and enforcement guidelines.

33. AGREE that, recognizing the standards setting responsibilities of OIE, APHCA will closely work with OIE on its work on animal identification and traceability matters.

34. REAFFIRM the validity of the progressive zoning approach and NOTE the ongoing progress and achievements in the identified zones.

35. NOTE the establishment of the MTM Epidemiology Network.

Component 6: Regional Research and Technology Transfer

36. SUPPORT continued epidemiological research into practical control methods for FMD in Southeast Asia including vaccination, with emphasis on efficacy and the role of carriers in the spread of the disease.

37. NOTE that there is some evidence that FMD infection may have been initiated from carrier animals in non-vaccinated cattle, possibly due to evolution of the virus; and AGREE that research commence under the SEAFMD programme be continued as a high priority item and additional funding be sought for this work.
Component 7: Livestock Sector Development Including Private Sector Integration

38. RECOMMEND that efforts be made to reinvigorate the PSCC and AGREE that a planning workshop be organized to examine the role, *modus operandi*, and its future direction and in this regard National Coordinators advise the RCU of the key contacts in traders and commercial farm industries.

39. NOTE the successful meetings of traders and other stakeholders from Thai-Malaysia (Alor Setar) and Thai-Myanmar (Tachileik) borders.

Component 8: Monitoring and Evaluation

40. ENDORSE the 2007/08 Annual Work Plan and review the delivery of the program during the National Coordinators meeting in August 2007.

Recommendations from the National Coordinators Meeting:

41. National Coordinators made the following comments on the Roadmap document:
   - AGREE in principle to the document Roadmap 2020;
   - RECOMMEND that the title of Roadmap be retained;
   - The 2020 document functions on three levels: As a planning tool, for use by member countries for government consideration and endorsement, for use to present to donors for the purpose of attracting external funding;
   - The document is comprised of 3 timelines, which become progressively less detailed: 2007-2010 (Phase III), 2010-2015 and 2015-2020;
   - AGREE that Regional Coordinators will submit comments to the RCU by 30th March so that the document can be finalised;
   - Emphasize importance of collaboration with neighboring countries, such as China and Bangladesh;
   - The RCU with OIE Central Bureau examine funding options;
   - Increased importance will be placed on collaboration with FAO, ADB, and World Bank;
   - Vaccination issues should be expanded in the document as should emergency preparedness and response;
   - The critical importance of veterinary services in sustaining animal health programmes should be emphasised;
   - AGREE that the SEAFMD remain under OIE management, with strong collaboration with ASEAN and FAO;
   - NOTE that as SEAFMD includes both infected and free countries, both situations must be taken into account; and
   - AGREED that the 2020 Roadmap be finalised for presentation to the OIE in May 2007.

42. AGREE the RCU explore with member countries the possibility of Ministers endorsing the SEAFMD programme.

43. NOTE the RCU will seek to provide emergency vaccines to Lao PDR and Cambodia.

Recommendations from the Observers meeting

44. Observers made the following general suggestions
   - legislation and enforcement are critical elements of the SEAFMD programme;
   - the RCU should be involved in the elaboration of National Plans;
   - China be an active participant in the SEAFMD programme;
   - private industry participation is critical to the success of the programme; and
   - compartmentalization could be considered for integrated pig production systems.

45. As regards the SEAFMD Roadmap 2020 document the following points were emphasised
   - The document should be made more concise and punchy;
   - Supporting economic statements should be provided including industry and population growth as well as consumption;
   - Improved costings for eradication of FMD by 2020 should be provided including vaccine costs
   - ASEAN should be informed of the magnitude of the programme and in this regard the draft 2020 should be provided for consideration in the ASWG meeting in Brunei Darussalam in April 2007;
   - Compensation should be referred to particularly in respect of stamping out in disease free zones or countries;
   - The need for flexibility was emphasised; and
   - FAO is asked to support the SEAFMD, and its role be better defined in items 11 and 12 of the Roadmap 2020 document.

SEAFMD 13th Sub Commission Meeting, Siem Reap, Cambodia
General

46. EXPRESS thanks to the Kingdom of Cambodia and the Province of Siem Reap, and the Department of Animal Health and Production for hosting an outstanding and successful meeting.

47. EXPRESS thanks to the governments, donors, and the private sector for their contributions to the program and meeting.

48. REQUEST that Viet Nam consider hosting the next meeting in 10-14 March 2008.
CONSIDERING THAT

The recommendation on the “Control of avian influenza and other priority animal diseases and zoonoses in Southeast Asia” adopted during the Special Meeting of the 12th Meeting of the OIE Sub-Commission for FMD in Southeast Asia (SEAFMD) held in Chang Mai, Thailand, in March 2006, has been largely followed by countries involved in the SEAFMD Programme (herein referred to as countries);

All OIE Member Countries regard the SEAFMD Programme as a model also applicable to other transboundary animal diseases such as highly pathogenic avian influenza (HPAI);

Despite considerable investments on the part of Governments, international organisations (such as FAO and OIE) and donors, and the good results obtained in some countries where proper strategies have been implemented, HPAI has established its foothold in Asia, becoming endemic in some countries and reappearing in other areas where it was thought to have been eradicated;

The transboundary nature of HPAI does not allow a single nation to effectively combat the disease on its own and that regional/international cooperation is crucial for the control and eventual eradication of the disease;

The role played by private veterinary practitioners and veterinary para-professionals, community animal health workers, livestock owners, non-governmental organisations, and industry in the prevention and control of HPAI at the local and national level is now fully recognised and appreciated;

OIE has been working with countries in Southeast Asia in the control and prevention of HPAI at source under the OIE/Japan Special Trust Fund;

AusAID is providing resources to the OIE Animal Health and Welfare Trust Fund for the evaluation and strengthening of Veterinary Services (VS), capacity building including training on emergency disease management;

Donors like the EU, Australia and Japan are providing important financial and technical assistance to the global fight against HPAI especially in Asia both at country and regional levels. Such assistance is strongly contributing to the positive results already achieved in HPAI control and possible pandemic preparedness;

VS in all countries of the world are on the front line for policies relating to the prevention and control of animal diseases and are now recognised as an 'International Public Good';

The efficacy of VS is particularly linked to compliance with OIE standards adopted democratically by all OIE Member Countries;

The Performance, Vision, Strategy (PVS) tool developed by the OIE is being widely applied to the evaluation of VS by OIE certified experts in various regions of the world including Southeast Asia;

The contents of the national or donor supported investment programmes of developing or in transition countries will be particularly based on the results obtained from the evaluation of VS carried out on a voluntary basis under the auspices of the OIE;

The OIE Regional Commission for Asia, the Far East and Oceania meets all conditions to be considered as an active regional organisation;

THE SPECIAL MEETING OF THE 13TH MEETING OF THE OIE SUB-COMMISSION FOR FMD IN SOUTHEAST ASIA ON HIGHLY PATHOGENIC AVIAN INFLUENZA AND STRENGTHENING OF VETERINARY SERVICES RECOMMENDS THAT:

1. All countries follow closely the global evolution of HPAI and reinforce their early detection and rapid response system. Regional information networks linked with the OIE World Animal Health Information System (WAHIS) should be further developed to enhance the regional preparedness and to take prompt actions for prevention and control of HPAI.
2. Countries reinforce their national preparedness plans in line with international standards, guidelines and recommendations of the OIE prepared in collaboration with FAO and ensure their practical and effective implementations. These emergency plans should include new legislations and regulations enabling the constitution of a national chain of command, a mechanism for providing incentives and other support services to poultry owners and if necessary, an appropriate strategic stock of vaccines against HPAI complying with OIE standards on quality as well as relevant vaccination materials.

3. Special support be provided by donors and lead technical agencies such as OIE and FAO to high risk countries such as Indonesia where the virus is already endemic.

4. Disease information including the nature of the virus as well as viral isolates be sent to the OIE Reference Laboratories for comparison of viruses and further research work. In this respect, OIE may consider establishing a sub-regional OFFLU network for Southeast Asia in collaboration with the OIE Reference Laboratories of Geelong, Australia, Hokkaido University, Japan, and Weybridge, United Kingdom, respectively.

5. Training of national veterinary laboratory staff in diagnostic and surveillance techniques and molecular analyses be strengthened.

6. Countries reinforce the effective role of Community Animal Health Workers in the control of animal diseases including HPAI under the supervision of veterinarians and invest in training programmes to further enhance their effectiveness.

7. OIE accelerate the evaluation of VS of countries using the PVS tool and organise training for regional experts in the use of the tool to enable them to be progressively engaged in the evaluation and follow up process.

8. Requests for financing addressed to governments and donors be established whenever necessary taking into account the deficiencies in the standards noted during the evaluations carried out by the OIE using the PVS tool and the gap analysis that may follow.

9. OIE and FAO start negotiations on the establishment of Regional OIE/FAO Animal Health Centres under the GF-TADs mechanism to provide further support to countries in the control of avian influenza and other priority diseases.

10. FAO continue its support on HPAI prevention and control in the region through its regular programme and Trust Fund mechanisms.

11. OIE continue and reinforce its governance support and training programmes on capacity building and animal disease management in the region.

12. ASEAN continue its Regional Framework for the control and eradication of HPAI in collaboration with all stakeholders.

13. Donors such as Japan, New Zealand, the Asian Development Bank and the European Union (EU) consider extending and reinforcing their cooperation to Member Countries of the OIE Regional Commission for Asia, the Far East and Oceania on HPAI control at source and support to Veterinary Services in order to allow additional countries including non OIE member countries of the region to benefit from such assistance.

14. The EU take into account the importance and effectiveness of the activities of the OIE Regional Commission for Asia, the Far East and Oceania and the OIE Regional Representation for Asia and the Pacific, such as the SEAFMD Campaign in preventing and managing transboundary animal diseases and other regional projects when considering funding applications including the establishment of vaccine banks for the region.

15. Countries show more political commitment in their willingness to control HPAI and other major animal diseases by strengthening their national investments.

16. The current recommendation be presented for adoption at the next OIE Regional Meeting for Asia and the Pacific as well as to donors that are likely to provide funding for the prevention and control of animal diseases in the region.

17. The meeting thank the Government of Cambodia for hosting the meeting.
1. INTRODUCTION

The 13th Meeting of the OIE Sub-Commission for FMD in Southeast Asia was held in Siem Reap, Kingdom of Cambodia from 12 to 16 March 2007.

About 80 people attended the meeting which included, Dr Gardner Murray, President of the Sub-Commission; Dr Bernard Vallat, Director General of OIE; Dr Dewan Sibartie, Head of the OIE Regional Activities Department; Dr Teruhide Fujita, OIE Regional Representative for Asia and the Pacific; staff members of OIE Tokyo; Dr Ronello Abila, Regional Coordinator and the staff of the OIE SEAFMD Regional Coordination Unit (RCU); Country coordinators and official delegates – Dr Som San (Cambodia), Dr Syseng Khounsy (Laos), Dr Agus Wiyono (Indonesia), Dr Mohd Naheed bin Hussein (Malaysia), Dr Khin Maung Win (Myanmar), Dr Rieldrin Morales (Philippines), Dr Chaweewan Leowijuk (Thailand), and Dr Phan Quang Minh (Vietnam). Dr Kao Phal, Director of the Department of Animal Health and Production (Cambodia) and observers from member countries; Australia, Japan, the Republic of Korea, New Zealand, and the People’s Republic of China also participated. International Organisations represented included ACIAR1, ASEAN2, AusAID3, Australian Veterinary Association, CIRAD4, CSIRO-AAHL5, DAFF6, DAFWA7, European Union, FAO8, JICA9, Murdoch University, and the World Reference Laboratory (WRL). There were representatives of the private sector present which include Dr Sumeth Supchukan, Chair of the Private Sector Consultative Committee (PSCC). The programme and list of participants are given in Appendices I and II, respectively.

The meeting was supported by the OIE SEAFMD Campaign, its major donor, the AusAID, the Cambodia’s Department of Animal Health and Production (DAHP), and the Provincial Government of Siem Reap Cambodia. The OIE Regional Representation for Asia and the Pacific, the Government of Cambodia, Merial and Intervet hosted social functions during the meeting.

The major topics presented and discussed during the meeting focused on the progress of the eight components of the SEAFMD Campaign, as well as the sustainability of resources, improved international coordination, improved surveillance activities, establishment of an effective laboratory network, and the SEAFMD 2020 Roadmap.

2. OPENING CEREMONY

The opening ceremony of the meeting was graced by H.E. Chan Tong Yves, Secretary of State, Ministry of Agriculture, Forestry and Fisheries; H.E. Mao Vuthy, Deputy Governor of Siem Reap Province; Dr Kao Phal, Director of the Department of Animal Health and Production; Dr Bernard Vallat, Director General of the World Organisation for Animal Health (OIE); and Dr Gardner Murray, President of the OIE Sub-Commission for Foot and Mouth Disease.

H.E. Mao Vuthy expressed his pleasure at being invited to attend the meeting and welcomed delegates on behalf of the Siem Reap Provincial Authority. He spoke of the history of his country and its natural resources and the central role of Siem Reap in agriculture and tourism. He encouraged delegates to visit the sights and to have a very happy stay. H.E. Vuthy hoped that the meeting would result in sharing resources to achieve the long-term goal of controlling FMD and alleviating poverty (Appendix III).

Dr Kao Phal on behalf of the Cambodian Department of Animal Health and Production welcomed the guests and delegates to the meeting. He acknowledged the importance of FMD in the region and the rest of world and, as a transboundary animal disease it was difficult for one country to control FMD by itself. He stressed that animal production is very important in the rural economy of Cambodia, hence controlling of FMD is critical to Cambodia. However, their program for FMD control is constrained with limited resources. Last year, they were able to purchase only 19,000 doses of FMD vaccines which is inadequate for their requirements and Dr Kao Phal appealed for international assistance (Appendix IV).

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1 ACIAR: Australian Center for International Agricultural Research
2 ASEAN: Association of South-East Asian Nations
3 AusAID: Australian Agency for International Development
4 CIRAD: French Agricultural Research Centre for International Development
5 CSIRO: Commonwealth Scientific and Industrial Research Organisation (Australia) – AAHL: Australian Animal Health Laboratory
6 DAFF: Commonwealth Department of Agriculture, Fisheries and Forestry (Australia)
7 DAFWA: Department of Agriculture and Food, Government of Western Australia
8 FAO: Food and Agriculture Organization of the United Nations
9 JICA: Japanese International Cooperation Agency
On behalf of the members of the Sub-Commission, Dr Gardner Murray acknowledged and thanked the Government of Cambodia and the Province of Siem Reap for hosting the meeting and extended sympathy to Dr Kao Phal for the tragic events that befell his family. He discussed the many successes of the SEAFMD Campaign such as progressive zoning, improved sero-surveillance, trainings, improved communications, industry collaboration, and extended funding in 2007. He noted that there were serious outbreaks in several countries, and emphasized that for countries to effectively manage animal diseases, they should have good veterinary services, adequate resources and a good model to work from. He said that SEAFMD is a good model that can be applied to other transboundary diseases.

Dr Bernard Vallat expressed gratitude to the Kingdom of Cambodia for hosting the meeting and sympathy to Dr Kao Phal for the tragic loss in his family. He gave special thanks to donors and organisations that have supported the campaign in recent years, including AusAID, New Zealand, the French Government, Japan and the Government of Thailand for hosting the Regional Coordination Unit. He thanked in particular the eight member countries for their unwavering commitment to the program which is considered as a model throughout the world (Appendix V).

Dr Vallat noted that 2007 marks the tenth year since the establishment of the SEAFMD Regional Coordination Unit (RCU) and the fight against FMD in Southeast Asia. He said experience has demonstrated that a focused and independent unit to coordinate and harmonise activities can be very successful. He said that the main achievements were a common vision and strategy which can be seen as an international model. It is characterised by strong coordination, policy development, strong epidemiology, technology transfer, private sector participation, and collaborative projects in the Upper and Lower Mekong Zones. These successes will be repeated in other parts of the region and this requires strong commitment and political will.

Dr Vallat advised that Philippines had made good progress with several areas free from FMD without vaccination and there had been no outbreaks since January, 2006. He emphasized that the battleground was now moving to mainland Southeast Asia where FMD was still endemic in most areas. Transparency is improving in the Region and this may have left the impression that the incidence of disease is increasing with the improved investigation and better sampling and laboratory testing. He urged countries to continue to maximise surveillance, investigation and reporting. To do this, there must be a robust public awareness campaign including the involvement of traders and other government agencies.

Dr Vallat emphasized that the cost of improving veterinary services is insignificant compared to the impact of transboundary diseases such as FMD. The AusAID/OIE capacity building project to strengthen veterinary services in Southeast and the Japan/FAO project on Avian Influenza are important initiatives for the future.

On behalf of the OIE, Dr Vallat thanked the ASEAN Ministers for signing the ASEAN Animal Health Trust Fund (AAHTF) agreement, which will pave the way for the long-term sustainability of the program. He noted that it may take three to five years to accumulate the required amounts to the fund; hence, SEAFMD Campaign will need continuous support from donors. Dr Vallat concluded by wishing delegates a fruitful meeting and the subsequent control and eradication of FMD in Southeast Asia.

H.E. Chan Tong Yves welcomed international and local experts to the meeting and emphasized the need to work together on the campaign to fight animal diseases including FMD. He said that with the occurrence of avian influenza in the region, MAFF was working closely with national and international organisations to prevent the spread of the disease and thereby reduce human casualties. He said that livestock production was of great importance as it accounted for 13.2% of GDP for Cambodia. He said that the limitation on livestock production is due to the presence of serious diseases, such as FMD, Haemorrhagic Septicaemia, Blackleg, Classical Swine Fever, Pasteurellosis, Salmonellosis and Newcastle Disease. Cambodia, in close collaboration with NGOs, industry and international organisations is developing strategic plans for establishing disease free zones (Appendix VI).

H.E. Chan Tong Yves expressed support for the strengthening of veterinary services and the need to share experiences with regional and international organisations. Cambodia is seeking the assistance of OIE and other agencies in developing a veterinary law and in the strengthening veterinary services as well as support for additional supply of FMD vaccines. H.E. Chan Tong Yves thanked the OIE for its assistance and wished the delegates for a happy and successful meeting. He concluded by declaring the meeting officially open.

Dr Heng Morany of the Cambodian Department of Animal Health and Production hosted the opening ceremonies.
3. UPDATE ON THE WORLD SITUATION IN RELATION TO FMD

Dr Nick Knowles of the World Reference Laboratory (WRL) for FMD at Pirbright gave the global FMD update. He explained recent key events and reports of the Cathay topotype O in Malaysia and Thailand during 2005; the spread of A-Irn-05 from Iran into Saudi Arabia, Turkey, Jordan and Pakistan; the introduction of Type A into Egypt from East Africa; and the spread of the second Type O Pan Asia-derived lineage to Nepal, Bhutan, Pakistan, Iran, Jordan, Turkey, Israel and UAE (Appendix 01 on CD-ROM).

The antigenic variation of FMD serotypes A and O in Southeast Asia are suggestive of extensive movement between countries, whereas serotype Asia 1 has distinct lineages in specific countries, suggestive of minimal movement between countries.

The key issues of FMD status in Southeast Asia were presented as follows:
- the pattern of prevailing FMDV serotypes and topotypes is changing;
- the spread of the Type O Cathay topotype to Malaysia and Thailand; and
- Type A has spread in Laos and Vietnam.

It was recommended that more antigenic and genetic characterisation should be done, particularly in Cambodia and Myanmar. Dr Knowles also indicated what vaccine strains for inclusion in antigen banks.

The establishment of a Reference Laboratory Information System (ReLaIS) and A Molecular Epidemiology Research Engine (Amergin) were presented. ReLaIS will develop an electronic communications centre for the FMD network that will provide a platform for exchange of FMD laboratory related information between partners, and to disseminate selected information to the wider public. Amergin stores the FMDV sequence database and allows for comparison of new sequences to the database.

In discussion, Dr Gardner Murray enquired whether the origin of the recent outbreak in North Korea is known. The WRL will try to obtain samples from this outbreak. Currently, the strain is unknown and there is difficulty extrapolating from neighbouring regions.

4. THE SEAFMD REPORT OF ACHIEVEMENTS AGAINST 2006-2007 WORK PLAN

Dr Ronello Abila reported on the progress of each of the eight components of the SEAFMD Campaign and noted the good progress of the Work Plan and the recommendations from the 12th Sub-Commission in 2006 (Appendices VII and 02).

Significant progress has been made on the recommendations from the 12th Sub-Commission meeting. Among these are the maintenance of the OIE recognized FMD zones, more surveillance and public awareness activities, strengthening of the epidemiology and laboratory network, more communication activities with private sector, engaging other donors to invest in FMD control and collaboration with other institutions to support FMD researches. Other key issues discussed are the strengthening emergency preparedness in member countries, strengthening veterinary legislation (particularly in Cambodia), and the development of a SEAFMD on-line outbreak reporting system which would function through the SEAFMD website. Dr Abila also presented a number of areas that require further work: the improvement of sample submission to the laboratories including identification of sample origin, and expert assistance to evaluate the sensitivity of FMD surveillance in Southeast Asia (Appendices VIII and IX).

In the discussion, Dr Vallat stressed the importance of ensuring that developed legislation be effectively implemented and enforced. Dr Murray enquired about the status of National Plans for each member countries. The National Plans for 2007-2010 are being updated in harmony with the Phase III of the SEAFMD campaign. The need for further support by donors was stressed, particularly following recent outbreaks in Cambodia, Vietnam and Laos.

5. MEMBER COUNTRY FMD STATUS REPORT

a. Cambodia

Dr Sorn San presented the geographical distribution of the 53 FMD outbreaks in Cambodia in 2006, which peaked from May to September affecting cattle, buffalo and pigs. He said that the major constraints in controlling the disease are weak animal movement control and limited resources for vaccination. He reported that the Cambodian Government funded a vaccination programme for the first time which was administered to
the provinces bordering Vietnam. Dr Som San highlighted the public awareness campaign and sero-surveys carried out in 2006 (Appendices X and 03).

b. Indonesia

Dr Agus Wiyono reported that Indonesia remains free of FMD and gave a short history of achieving FMD freedom in Indonesia. He presented the emergency preparedness and targeted surveillance activities to prove freedom from FMD. Dr Agus noted the illegal movement of meat into Indonesia from infected countries posed a high risk for possible re-introduction of the diseases. He also presented the diagnostic capabilities, current research projects, and future needs for Indonesia’s maintenance of FMD freedom (Appendix 04).

Dr Agus said that the key factors for the successful eradication of FMD from Indonesia were the government’s commitment to provide resources for eradication and implementation of a harmonised approach across the country.

c. Laos

Dr Syseng Khounsy reported that there were 28 outbreaks of FMD in Lao PDR in 2006, but was mainly confined in the capital Vientiane. The outbreaks were of Serotype A and affected only cattle and buffalo. Previously, sporadic FMD outbreaks in Laos were caused by Serotype O, but in the latter part of 2006 an epizootic of Serotypes A was recorded. It is suspected that the new Serotypes A could have entered Laos through illegal movement of cattle (Appendix 05).

Dr Syseng discussed the diagnostic capabilities for Laos, including the cooperation with the RRL on the submission of samples. He highlighted the sero-surveillance activities and public awareness campaign strategies they have implemented, supported partly by OIE SEAFMD, ADB/FAO Project, the French Government, ACIAR and AusAID-Australia. He also acknowledged DLD Thailand for their help with providing vaccines. He identified that one of the major constraint to FMD control is lack of resources.

d. Malaysia

Dr Mohd Naheed Bin Hussein reported that the HPAI outbreaks in February 2006 had resulted in resources being directed away from FMD. This could be the possible reason for the increase in the outbreaks of FMD in Malaysia. He said that there were usually two peaks of FMD each year which are usually associated with imports of animals for the festive seasons. Dr Naheed noted that in April they had implemented better control measures and this resulted in the reduction of outbreaks from July to September (Appendices XI and 06).

Dr Naheed presented the clustering of Serotype O outbreaks in the State of Malacca and other areas in the southern part of Malaysia; Serotype A outbreaks have occurred mainly in the northern part. The need to import cattle to meet consumer demand, mainly from neighbouring countries, is the main constraint in FMD control.

e. Myanmar

Dr Khin Maung Win presented the status of FMD in Myanmar in 2006/07. He described the progress of FMD zoning in the Tanintharyi Division. He reported the success of the sero-surveillance and public awareness programs in the area. The surveillance had demonstrated absence of disease in the Control and Buffer zones and this will be followed by progression of zone status (Appendices XII and 07).

Dr Khin Maung Win reported their activities to address the eight SEAFMD components and this included special comments on public awareness, vaccine production, diagnostic, zoning, sero-surveillance studies, the need for upgraded information systems and legislation.

f. Philippines

Dr Rieldrin Morales reported that the Philippines had not had an outbreak since January 2006. He said they are now preparing for declaration for FMD Freedom with vaccination for Luzon Island. The focus of their activities will be on public awareness and active surveillance. He also discussed on the plan of when and how to stop vaccination in Luzon. Dr Morales reported that the FAO/AusAID project to support the Philippine FMD eradication program had been renewed for a further 18 months. The members of the Sub-Commission congratulated the Philippines for their success (Appendices XIII and 08).

g. Thailand

Dr Wacharapon Chotyaputta reported that there were 43 FMD outbreaks in Thailand in 2006 and predominantly caused by serotype A, but sporadic outbreaks of serotype O were also reported. He said that in
the previous year the balance between A and O is almost 50:50. FMD outbreaks in Thailand significantly decreased from 92 to 42 from 2005 to 2006. He noted that Thailand is studying the risk factors responsible for FMD spread, particularly animal movements, grazing, and swill feeding (Appendices XIV and 09).

Dr Wacharapon described new control measures implemented, such as farmers vaccinating their own cattle and a new identification system using ear tag and identification card to improve traceability. He also mentioned the importance of correct use and storage of vaccines.

h. Vietnam

Dr Phan Quang Minh reported that in 2006 there were large scale FMD outbreaks throughout Vietnam with an increasing number of infected pigs in the south of the country. The epidemic peaked in May and they have yet to determine the reasons for the peak at this time. Serotype O was the predominant cause of the epizootic. Serotype Asia 1 was also detected in some outbreaks in the northern part of the country (Appendices XV and 10).

Dr Minh explained that the Department of Animal Health is revising the National FMD Control Plan, giving emphasis on vaccination and zoning strategy

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

a. Australia

Dr Peter Black discussed the annual meeting in Australia to review and discuss preparedness activities relating to FMD. He said that this should lead to some additional activities including: enhancing peri-urban biosecurity with the cooperation of government and industry; conducting education and awareness initiatives to underpin on-farm biosecurity and identify and address gaps; conducting FMD vaccine studies at the Australian Animal Health Laboratory (AAHL) to generate essential assay and immune response data from all vaccine strains held in the Australian FMD vaccine bank; and progression of the twinning program between AAHL and the FMD Regional Reference Laboratory (RRL) in Pak Chong, Thailand. Dr Black also mentioned that Australia has a number of collaborative projects with countries in the region covering aspects of FMD control.

b. New Zealand

Dr Derek Belton explained that there had been an emphasis on H5N1 in New Zealand risks with a review of the effectiveness of measures designed to keep avian influenza from entering New Zealand. They will introduce a new avian influenza surveillance in-line with the OIE definition of notifiable avian influenza. They have an agreed avian influenza response plan and identified the range of avian compartments containing birds susceptible to avian influenza (Appendix 11).

Dr Belton also discussed New Zealand’s assistance to the SEAFMD Campaign, in particular the financial support for the RCU infrastructure. New Zealand also supports capacity building and specific technical projects amongst SEAFMD members. He concluded by saying they were still learning how to deliver most return on investments made and requested feedback on how that may be improved.

c. FAO (Food and Agriculture Organization of the United Nations)

Dr Carolyn Benigno said that the regular program of FAO has several programs with an FMD focus. Sustainable Livestock Production looks at the standards and guidelines for animal identification and traceability. It also has case studies on disease and market implications of cross-border livestock trade/opportunities for movement control; and management of animal genetic resources (Appendix 12).

FAO have policy briefs on livestock: “The role of policy in supporting diverse functions of livestock in Asian economies”; and “Economic and Social Development: Policy Analysis and Lessons Learned”. Dr Benigno talked about other programs which had some FMD focus which includes EMPRES – which is strengthening epidemiological capacity of field veterinarians; multi-criteria analysis of disease control strategies against TADs and its application in FMD control; and risk communication strategies in disease emergencies.

Dr Benigno discussed the APHCA activities including: Animal ID and Traceability Workshops; Risk Based Surveillance Workshops; SPS Workshops; Looking into the feasibility of an FMD Antigen Bank; and Assistance Fund for Disease Emergencies that will cover costs for outbreak handling including in-country travel expenses, purchase of vaccines, diagnostic kits and other emergency supplies, casual labour and the printing of communication materials.

Discussion revolved around the collaboration between FAO and OIE on the said projects.
d. **OIE Tokyo**

Dr Teruhide Fujita explained the Organisational Framework for OIE Tokyo and the OIE Avian Influenza Unit in Bangkok, as well as the initiation of a secondment program. Dr Fujita discussed the OIE Japan Trust Fund and its activities such as the development of Epidemiological Information Systems (including epidemiology) and the Development of national strategies and training. He noted that as part of their work on FMD, OIE Tokyo collected and disseminated FMD information in the region on a monthly basis. They worked with OIE SEAFMD RCU on zoning and Animal Movement Management and supported the UMWG and the LMWG Meetings. He discussed other programs of the OIE Tokyo office planned projects for 2007, these included further capacity building; strengthening of veterinary services; and support for improvement of Animal Health Strategies in Asia the Pacific (Appendix 13).

e. **AusAID (Australian Agency for International Development)**

Dr Julie Delforce said that AusAID was very pleased with the SEAFMD Campaign and they should be congratulated on their hard work. AusAID has funded the project since 1996 and commit funding until December 2007. AusAID also has committed funding to the successful FMD project in the Philippines and for the Vietnam CARD program. She noted that AusAID has funded about $3.9 million for SEAFMD which included some support for the RRL and consultants who assisted with the 2020 Roadmap. She hoped that there is a smooth transition to ASEAN and that this will strengthen the campaign. The agreement on the ASEAN Animal Health Trust Fund was a positive step however, further work is required, such as exploring the involvement of the other partners of the ASEAN the Plus Three Group (Republic of Korea, People’s Republic of China and Japan). She commented that AusAID also has a scholarship program which would be worthwhile for people looking into further research into FMD (Appendix 14).

f. **ACIAR (Australian Center for International Agricultural Research)**

Dr Gardner Murray advised that ACIAR remains committed to working in priority areas in animal health in Southeast Asia and is particularly interested in socio-economic impacts of TADs. ACIAR projects relevant to SEAFMD included a new review about capacity building in Indonesia and a project on strengthening surveillance in Indonesia. Dr Chris Hawkins explained the new ACIAR project on “Understanding Animal Movements in Cambodia and Lao PDR”, and said the project will identify high risk movements and then find strategies to deal with them. The aim is to work with traders and farmers as well as setting up an Animal Movement Intelligence Network.

g. **European Union**

Dr Nou Vonika reported on the Small Holder Livestock Program in Cambodia and how it works with small holders, village animal health workers (VAHW), government, commune councils, the private sector and NGOs. He said the objective is to reduce poverty and food insecurity in rural areas and to develop local capacity. He explained the processes for contracting projects under the European Union project (Appendix 15).

h. **France – CIRAD (French Agricultural Research Centre for International Development)**

Dr Francois Roger explained how CIRAD provides technical assistance and training in collaboration with the OIE at the regional and national level (Indonesia, Philippines and Vietnam). Further trainings in Malaysia, Myanmar and Thailand are planned for the near future.

i. **Japan – JICA (Japanese International Cooperation Agency)**

Dr Masao Sasaki noted that Phase I of the JICA project was completed in December 2006. The project had worked to improve the animal health status in Thailand and neighbouring countries through technological improvement of animal disease control. The program spent USD 5 million over five years and had worked cooperatively with FAO and OIE. Phase II is expected to start in May 2007 with the aim of strengthening animal disease surveillance. The project will enhance surveillance information systems, public awareness training, and encourage people to share information about TADs. There will also be an emphasis on training in surveillance techniques and animal management at the borders (Appendix 16).
7. DISEASE SURVEILLANCE, DIAGNOSIS, REPORTING AND CONTROL (SEAFMD Component 4)

i) Member Country Reports

a. Cambodia

Dr Sorn San noted progress with the Lower Mekong Control Zone project and stressed the need to improve Quality Assurance.

b. Indonesia

Dr Agus discussed the plan to improve laboratory capacity to do an antigen detection test.

c. Philippines

Dr Morales commented on the collection of samples from commercial farms, and said that in 2006 approximately 10,000 samples were tested nationally in the Philippines.

d. Thailand

Dr Wacharapon reported the sero-surveys conducted in Region 9 (part of the MTM Zone) and Nan province (part of Upper Mekong), using NSP test to detect antibodies due to infection and LP ELISA to monitor response to vaccination. He said that tissue specimens had been received at the RRL from member countries – Cambodia, Myanmar, Laos and Vietnam. He also added that FMD samples from Thailand and member countries were submitted to WRL for further analysis and nucleotide sequencing.

Laos, Malaysia, Myanmar and Vietnam had no further comments on Component 4.

ii) FMD status for 2006: Annual report of FMD outbreaks in Southeast Asia

Dr Stephane Forman discussed the outbreak status of FMD for 2006. He said that 83 reports were received, with three main clusters of outbreaks seen in Laos, Vietnam and Cambodia. The peak of epizootics in Cambodia and Vietnam occurred from May to September (Appendix 17).

Dr Forman discussed the changes of the FMD status in the MTM zones of Thailand and Malaysia. In the Upper Mekong Control Zone, three provinces of Vietnam reported outbreaks for the first time since 2002. Also a large number of outbreaks were reported in the Lower Mekong Control Zone due to the major epizootics in this area.

A comparison of the type of diagnosis, serotypes reported and species affected was presented. The issue of no reports in small ruminants was raised and it was suggested that under-reporting maybe due to the lesser importance of the disease in this species.

It was recommended to conduct an analysis of the true economic impact of the 2006 epizootic in Vietnam. The sources of the outbreak, the importance of outbreak investigation, and the need for improvement in member countries were emphasized.

There was a general increase in the number of outbreaks reported with the exception of Thailand and the Philippines. It was also noted that 2006 was unusual because of the epizootics in Laos, Vietnam and Cambodia.

In the discussion, Dr Murray agreed on the need for full economic assessment of costs and social impact. He said that proper socio-economic analysis was very important for approaching donors and member countries themselves. Dr Abila added the need to account for the reduced output from draught animals and the “knock-on” effects. Dr Morzaria described an FAO report that has been prepared from investigation of economic impact of recent FMD outbreaks and analysed by an economist.

iii) Analyses of sero-surveillance data from Upper and Lower Mekong Zones

Dr Stephane Forman opened the presentation by stressing the need for more technical output from the SEAFMD Campaign. He described the three regional FMD zones in Southeast Asia which were the Malaysia–Thailand–Myanmar (MTM) Zone, the Upper Mekong Zone (UMZ) and Lower Mekong Zone (LMZ) and activities occurring in these areas. He described the design of the serological studies in the UMZ and LMZ, and
said that these studies were jointly implemented through the strong collaboration between FAO and OIE (Appendix 18).

Dr Saraya Tavornpanich presented the outcome of the sero-surveillance study of the Upper and Lower Mekong Zones, including the aims of the study, the method of sampling, the constraints and the outcomes. A full report of this study should be available in April 2007. She showed that there were differences between the Upper and Lower Mekong Zones and that in each zone there were provinces that showed no occurrence of disease. Dr Saraya suggested further investigation of this finding as adjacent provinces appeared to be heavily infected. The study was extended to investigate the sensitivity and specificity of using FMD history to determine the prevalence of disease in a specific region, using NSP as a reference test. Dr Saraya concluded that the sero-surveillance study and analysis provided a greater understanding of FMD in Upper and Lower Mekong zones (Appendix 19).

In the discussion, delegates applauded the surveillance work done for this project. Dr Sibartie asked why NSP test has been used as the reference test and why a single positive test would describe a village as affected, given the constraints of this test. Dr Abila responded that the vaccination status was unknown in some areas, so rather than using LP ELISA and then confirming with NSP, it was decided to use only the latter test. Questions raised as to how long NSP antibodies last, believed to be two years, but in some regions where there had been no reported outbreak for three years, NSP antibodies were still present. Dr Morzaria noted that the samples were collected prior to epizootics in Cambodia and Vietnam. Dr Abila suggested that there could be clustering of NSP positive animals but no active infection in Laos and this was likely due to outbreaks two years ago. This could be considered in the analysis.

Dr Morzaria added that the NSP was used for convenience because most laboratories were capable of doing this. Dr Wilai advised member countries to use Cedikit and noted that the 3ABC ELISA detects antibodies for up to two years. Dr Li said China has 100% vaccination but the problem was differentiating vaccinated versus infected animals, thus NSP is required. He noted that the NSP test was expensive and recommended the neutralisation test in combination with LP ELISA. Dr Naheed said that the 3ABC ELISA was used in Malaysia rather than neutralisation test as many laboratories do not have the capacity/capability to do virus neutralisation tests. NSP is good to use if the purity of the vaccine can be assured.

Dr Vallat said that when aiming for OIE freedom with vaccination, countries need to use an NSP test to demonstrate absence of viral circulation and stressed the use of purified vaccine to avoid a false positive. Dr Morzaria questioned whether in an area of high prevalence, should a highly purified vaccine or a step wise approach be used – whereby the situation is initially controlled with a vaccine perhaps of lesser purity and then progressing to use of a highly purified vaccine and NSP test. Dr Abila expressed the need to investigate these areas as part of the zoning approach, as no outbreaks reported for some time prior to 2006 epizootics. He suggested conducting more questionnaire surveys, which could help to acquire needed information at a lower cost.

iv) Analysis of sero-surveillance data from Thailand

Dr Wacharapon described the methods and survey design used for the sero-surveillance in Thailand. He said that the aim was to determine the prevalence of FMD (using the NSP test) and the level of immunity (using the LP ELISA). The serological results from the Nan Province and the MTM zone were presented (Appendix 20). There was a discussion on the ability of the NSP by itself to demonstrate virus circulation. Dr Verin and Dr Naheed agreed on the need to use a series of tests including virus isolation to prove presence or absence of disease. Dr Naheed stressed the need to distinguish vaccinated and infected animals through the use of NSP.

v) Evolution of FMD serotypes in Southeast Asia

Dr Wilai reported on the serotypes tested at RRL and the methods, materials and criteria for interpretation of r-values. The r-value of serotypes O, A and Asia1 were presented and the evolution of these sub-types was discussed. The matching of the vaccine strains currently in production was based on this data. Dr Wilai explained the ELISA test profiles of viruses from Thailand and Laos against reference viruses (Appendix 21).

The antigenic sequencing activities are carried out in the RRL. The phylogenetic trees had been repeated by the WRL and a similar result was generated. Phylogenetic trees were shown for the FMD Type O field outbreaks in Southeast Asia during 2004-2006, Type A in 2005-2006 and Type Asia 1 in 2005-2006. The factors causing the most recent outbreak were presented and require further investigation.

Dr Abila stressed the importance of good identification of the origin of samples. Dr Wilai said there was a form to provide the history of the samples which would improve traceability of samples was available,
however she said it was rarely used by members when submitting samples to the RRL. Dr Vallat suggested that the form be made available on the SEAFMD website and Dr Knowles noted difficulty in translation, particularly in different spelling of the names of places. He suggested that geo-referenced data be provided to improve accuracy of sample origin.

vi) Epidemiological and economic studies to support the establishment of a progressive zoning approach for FMD control in the Lower Mekong

Dr Sothyra Tum opened with background to the progressive zoning initiative in the Lower Mekong. He presented the details of the epidemiological studies, risk assessment, spatial modelling and impact assessment activities carried out as part of the study. Dr Tum said there were limitations on capability to submit samples, resulting in fewer samples being tested than those collected. The results showed a high level of FMD in LPBE and NSP tests. It was also noted that further analysis of risk factors are needed. Explanation of the high LPBE test results was difficult when assuming that the level of official vaccination in Cambodia was very low (Appendix 22).

In the discussion, Dr Abila suggested looking at outcomes of other studies in Vietnam, and Dr Naheed said he had seen similar events in Malaysia. Dr Benigno asked whether the vaccination discrepancy be explained through animals moving into Cambodia from other areas which may vaccinate – it was noted that this will be investigated. Dr Forman commented on the possibility of vaccines bought privately from neighbouring countries.

vii) Establishment of the MTM epidemiological network

Dr Polly Cocks from Murdoch University gave a presentation on the establishment of the epidemiological network for the MTM Campaign (MTM EpiNet). The MTM EpiNet is composed of two delegates each from Malaysia, Thailand and Myanmar and will function as an epidemiological advisory body to the MTM Tri-State Commission. A planning workshop was held at Murdoch University in November 2006 with the support of the AusAID – SPS Capacity Building Program (managed by DAFF). The outcomes of the workshop included a draft Terms of Reference; a network communication strategy set in place; research priorities identified (the role of FMD carrier animals in the MTM; trade analysis in the MTM specifically relating to Sanitary and Phytosanitary issues; and vaccination and vaccination strategy in the MTM); training needs for the network members and local field staff identified surveillance; risk analysis; and training techniques); priorities matters for the next MTM Tri-State Commission meeting identifies and a work plan to achieve the objectives of the AusAID SPSCBP was developed (Appendix 23).

8) REGIONAL RESEARCH AND TECHNOLOGY TRANSFER (Component 6)

i) Country Reports

a. Thailand

Dr Wacharapon reported that the Department of Livestock Development supported the research and collaboration with international organization through training of RRL staff in Australian Animal Health Laboratory and ANQAP. Under the AADCP-RPS project, Australia assisted with implementing the Laboratory Information Management System (LIMS), improved laboratory quality and molecular diagnosis, good biosecurity laboratory practice and microbiological containment, microbiological containment engineering maintenance, cell culture, laboratory quality system and proficiency testing.

b. Myanmar

Dr Khin Maung Win said a new FMD vaccine production plant was established in Myinmu Township of Sagaing Division. Four staff from the FMD diagnostic laboratory and two from vaccine production laboratory were trained at the RRL, Thailand under the JICA project. Dr Sakamoto from NIAH, Japan had visited Myanmar to assist with FMD diagnosis in 2006.

There were no additional reports from Cambodia, Indonesia, Laos, Malaysia, the Philippines or Vietnam.

ii) Progress with the Regional Reference Laboratory

Dr Wilai described progress of operations for the RRL and plans for the RRL to achieve OIE Reference Laboratory status. Highlights of the presentation: capacity building, staff development, establishment and progress with a quality system in veterinary testing. The OIE twinning project with AAHL in Geelong Australia was described and participants were informed that the proposal for this has been submitted. Dr Wilai
gave an overview of the Laboratory Network meeting held at Pak Chong in early March 2007 and concluded with discussion on sample submission protocols and sample containers (Appendix 24).

iii) Update on the role of carrier animals in FMD outbreaks

Dr Blesilda Verin reviewed the role of animal carriers. She defined carrier animals as persistent infection for FMD and which involved the presence of a virus in susceptible animals more than 28 days post-infection. Dr Verin said the duration of carrier varies among wildlife and that wildlife is more likely to spread FMDV in the clinical or sub-clinical state than as carriers. For domestic animals the carrier is important for the SEAFMD campaign, as cattle can be carriers for up to three and a half years. Sheep and goats also play an important role but the duration is much shorter than for cattle, while pigs were generally not considered to be carriers, though there is some debate on this aspect (Appendix 25).

For domestic animals the carrier is important for the SEAFMD campaign as cattle can be carriers for up to three and a half years. Sheep and goats also play an important role but they develop persistent infection less frequently than for cattle and the carrier state lasts one to five months only (but can last up to 12 months). Although classified as FMD amplifying hosts FMD carrier state does not occur in pigs. The role of the water buffalo as a reservoir has been reported in India, Pakistan and Brazil, but no such evidence was found in a study in Philippines.

Diagnosis of FMDV carrier status was described and Dr Verin recommended using probang sampling and testing with quantitative real-time RT-PCR or a serological test, such as NSP, and specific immunoglobulins (IgA) which are very sensitive and specific. She also recommended research on the role of swamp buffalo and small ruminants as carriers in Southeast Asian countries as well as studying the transmission of FMD between cattle and water buffalo. She suggested that member countries give greater emphasis on conducting scientific based studies to help understand the FMD epidemiology in the region. Scientific based sero-surveillance will ensure that the virus is not circulating at low levels especially in large vaccinated pig populations, and molecular-based studies on the evolution of FMD virus strains in the region will be helpful in further understanding the disease.

In discussion, Dr Sibartie strongly encouraged further studies on the role of animal carriers, especially the role of pigs. He said the standard in the OIE Manual are based on work carried out in cattle and not on buffaloes and requested that useable data on buffaloes be forwarded to the OIE.

Pigs are currently not considered to be an FMDV carrier. Dr Knowles said that no one had been able to isolate virus from pigs even when PCR has been positive. In South Africa, virus was found in the semen of buffalo – the virus can transmit via sexual contact from male to female buffalo. Dr Forman mentioned a study in Sri Lanka where using probang sampling, it was found that water buffalo carried virus for up to one year after an outbreak.

iv) Multi-criteria analysis on FMD control measures in the MTM and Upper Mekong

Dr Carolyn Benigno gave a brief background on work in the MTM and Upper Mekong areas and described the objective, activities, and outcomes. Multi-Criteria Analysis Tool (MCAT) was used to elicit stakeholder opinion on the best control measure to apply, what the various stakeholders think of the regulatory measures to be implemented, and how the authorities would decide on which is the best measure considering animal movement covers neighbouring countries. MCAT was introduced as an aide to decision making, and six steps of MCAT process were described. The findings were that regulations/requirements for animals going out of the country seem to be acceptable to all stakeholders although the alternatives for each group differ in terms of receiving the animals. Vaccination and quarantine on arrival seem to be a common point of agreement. However, which approach to choose would depend on the epidemiological situation. In response to a question by Dr Morzaria, Dr Benigno said that Epidemiology, Economics, Social Ethics were defined as disease situation in the country, cost effectiveness, and acceptability to do the work, respectively (Appendix 26).

v) Update of FMD research studies from Murdoch University

Dr John Edwards discussed the progress and success of the FMD Research projects in Southeast Asia. He provided a snapshot of the work being done by Murdoch University in collaboration with partners and noted the ten postgraduate students who were contributing to research on FMD relevant to the SEAFMD Campaign. These included a risk based surveillance system to confirm FMD freedom in Indonesia; research and epidemiological studies to support the progressive zoning approach; epidemiological research to support the MTM, Lower Mekong and Upper Mekong zoning initiatives; epidemiological studies to support the establishment of a progressive foot and mouth disease zoning approach in Myanmar; epidemiology of the pig-adapted strain of FMD in Taiwan; and communication research. Murdoch University and DAFWA were also
active in research and training in the areas of strengthening veterinary services, epidemiology, risk analysis animal biosecurity, avian influenza and FMD (Appendix 27).

9. LIVESTOCK SECTOR DEVELOPMENT INCLUDING PRIVATE SECTOR INTEGRATION (Component 7)

i) Member Country Reports

a. Thailand

Dr Wacharapon said the participation of private sector in the FMD control program in Thailand is encouraged and strengthened through consultation with livestock industry organisations. An industry committee was chaired by the Director General of DLD with a forum to discuss issues of concern.

b. Myanmar

Dr Khin Maung Win reported that the Myanmar Livestock Federation (MLF) is a non-government organization and established at various levels from township to state levels and involves many livestock industry organisations.

No additional report from Cambodia, Indonesia, Laos, Malaysia, the Philippines or Vietnam.

ii) Private Sector Consultative Committee Report

Dr Sumeth Supchukun, Chair of the Private Sector Consultative Committee (PSCC) reported on progress related to the Private Sector Plan and highlighted activities in 2006. He said that two vaccine companies had agreed to sponsor bio-safety containers and costs of sending samples to RRL and WRL (Appendix 28).

The PSCC plans for the coming year include requesting member countries to recommend new members to the PSCC; requesting the RCU to organize a workshop for the PSCC; identifying private sector organizations to be engaged with SEAFMD campaign; and encouraging more private sector stakeholders to participate in PSCC activities.

iii) Meeting global demand – Challenges and opportunities

Dr Philippe Dubourget from Merial, briefly referred to the history of FMD vaccine and antigen banks, noting the cessation of FMD vaccination in many countries increased the number of vaccine/antigen banks and strategic reserves during early 1990s (Appendix 29).

Dr Dubourget explained the production and storage process for FMD vaccines. This process takes about three months including tests. The advantages of an FMD antigen banks include the storage on concentrated inactivated antigen representing the most important/relevant field strain and they have a much longer shelf life than formulated vaccines. He said these ‘banks’ of antigens can be quickly formulated as required. The antigen banks are flexible as the manufacturers can anticipate the potency of the final vaccine according to the nature of the field virus. The disadvantages were that the vaccines had to be used or discarded and replaced at the end of the shelf life.

Discussion focused on the minimum number of doses that can be ordered and produced. The recommendation was a minimum of 100,000 to 200,000 doses must be ordered to make it cost effective for both parties. Vaccines are kept for 18 to 24 months depending on type. In response to a question on the fate of expired vaccines Dr Dubourget said that in a normal situation they are destroyed, however they could be used for donation. The South Korean representative mentioned that they would donate to Mongolia.

iv) Traders and Stakeholder Meetings along borders

Ms Nichola Hungerford reported that there had been two bilateral workshops on animal movement in the last six months: one was on the Thai-Malaysia border and the other was on the Thai-Myanmar border. In August 2006, the workshop on Animal Movement Management at Alor Setar – Malaysia was a joint collaboration with the Department of Veterinary Services in Malaysia, JICA and OIE – RCU. It was noted that networking and public awareness with traders and stakeholders can be done concurrently with the meetings during coffee breaks (Appendix 30).

The aim of the meeting was to bring together traders, farmers and government department staff from both Thailand and Malaysia to discuss the current situation of illegal trading on the border, and to discuss the problems of traders and farmers were facing in the cattle trade industry. Discussions were held between the
Thai and Malaysian Governments, with SEAFMD and JICA as facilitators and seek a technical agreement on border issues concerning disease, tests needed, quarantine time and location before exporting livestock to Malaysia.

Outcomes were to follow the existing protocols with testing to be done at the rate of 200 baht per test and only NSP ELISA results officially tested at DLD approved laboratory accepted. Other outcomes included: tests may take up to a maximum of 5 days; registration of holding yards in Malaysia; and Malaysian holding yards to be upgraded to minimum standards. Dr Sasaki mentioned that this meeting paved the way for the resumption of Livestock Trade between Thailand and Malaysia.

The second meeting was on the Thai-Myanmar border in November 2006 and was aimed to bring together the private sector and government to promote the “legal” livestock trade across the border. Major outcomes included an agreed protocol to manage animal movement across the Myanmar and Thailand Border and a protocol that includes accreditation of quarantine sites by both countries.

In discussion, Dr Sasaki mentioned that animal movement is a key factor in controlling FMD and that the main players in animal movement control were not the government officials but the traders. He emphasized that the protocol has to be adapted to the agreement and we have to get support from the traders according to the protocols and procedure. He concluded that the procedures to make this happen need to be smooth and very practical.

Dr Ronello Abila said that the SEAFMD Campaign would be reinvigorating PSCC and asked coordinators to recommend replacement for the Committee to facilitate further involvement of private sector, especially traders. He said there would be a workshop organised for the private sector. Dr Benigno suggested including commercial farms in private sector.

10) PUBLIC AWARENESS AND COMMUNICATION (Component 3)

i) Member Country Reports

All countries had conducted communication activities which are discussed elsewhere.

ii) Progress with SEAFMD Communication Plan

Ms Nichola Hungerford, the SEAFMD Communications Officer provided an update of the Public Awareness and Communications Program. She talked about the need to keep the message simple and clear as the target audience can often not understand a complicated veterinary message. The public awareness program had been active in 2006 which involved the employment of Ms Hungerford in April; the emergency public awareness campaign in Laos; maintaining SEAFMD Newsletter; update of the website; printing of 3,500 posters on FMD for Laos with more planned for Cambodia; and revising and updating of the regional communication plan and focus on the progressive zoning approach. Ms Hungerford discussed her visits to member countries which included visits to quarantine stations and border crossings and affected villages in Cambodia. She also described the Knowledge Attitudes and Practice (KAP) survey co-organized by ADB/FAO and the RCU (Appendix 31).

Ms Hungerford detailed the emergency public awareness campaign in the northern part of Laos to prevent the entry of FMD from the Vietnamese epizootic. This was funded by the ADB/FAO and the French Government through the SEAFMD RCU and included radio spots, meetings with farmers, village chiefs, border chiefs as well as poster distribution.

During the next 12 months, the objective is to inform the public in order to improve the early reporting system at the grass-root level. SEAFMD News will continue and inputs are welcome. The importance to involve traders, farmers, para-veterinary workers and to translate messages in countries languages. The Draft Regional Communication Plan for 2007-2010 was still under development and will take into account the SEAFMD 2020 Roadmap.

Dr Bart Mourits suggested greater use of the success stories from Indonesia and the Philippines and to learn from their experiences.
11) POLICY, LEGISLATION AND STANDARDS TO SUPPORT DISEASE CONTROL AND ZONE ESTABLISHMENT (Component 5)

i) Member Country Reports

The comments from member countries were that Cambodia has requested assistance to design veterinary legislation. Thailand has agreed to host the next Upper Mekong Zoning Meeting in January 2008.

ii) OIE standards in relation to FMD

Dr. Sibartie began by re-emphasizing that despite of other emerging diseases; FMD is still the most economically important disease in the world, especially for international trade. He described the process for developing OIE standards and that any specific problems are brought to the attention of the Director General is submitted to the relevant Specialist Commission which might refer it to the Ad Hoc Group for recommendations. The report of the Ad Hoc Group is reviewed by the Commission, and then circulated to Member Countries for comments for a 60-day period. Comments received are taken into account and a draft standard drawn. This is then submitted to the International Committee for approval and once approved it becomes a standard mandatory for member countries (Appendix 32).

Dr. Sibartie discussed the changes to the Terrestrial Manual and said the main changes concerned Chapter 2.1.1 and which were adopted during the General Session in May 2006 and can be seen on the OIE website. Other changes concerned sample selection for virus isolation and sample collection; approval and use of diagnostic tests and a new section on vaccine matching and requirements. Major changes proposed to Chapter 2.2.10 of the Terrestrial Code are meant to: 1) ensure that a buffer zone exist between a free country and another country or zone with a different health status with respect to FMD; 2) require countries free from FMD to provide annually documented evidence to the OIE to certify that the free status is actually maintained; and 3) to expedite the recovery of free status in countries or zones where limited outbreaks of FMD may occur through the creation of a containment zone.

Dr. Vallat commented that the OIE Code had changed after the development of NSP Tests, particularly for the ‘free with vaccination’ status which has had big impact on international trade particularly in South America. The OIE had given more power to the Scientific Commission to fast track approval for recovery of free zone status after occurrence of an outbreak if the provisions of the Code are met. He said that compartmentalisation is a debatable issue and he is not sure that it will be agreed during the upcoming General Session. If it is, it will probably be applicable only for high biosecurity pig farms initially. Dr. Belton said New Zealand supported the concept of establishing a containment zone, but had some reservations that the proposed new text wording may create confusion with existing code text and definitions. Dr. Vallat said that discussion is still going on but he said an example of this concept could be an infected zoo.

iii) Animal movement management in the Mekong Region

Dr. Teruhide Fujita gave a presentation on the outcomes of the last meetings of the Upper and Lower Mekong Working Groups (Appendix 33).

The Lower Mekong Working Group meeting (LMWG) was held in Sa Keo, Thailand, in October 2006. The key recommendations were: a further refinement of a draft protocol to manage livestock movement in the subregion; that import/export certificates to be used; basic training on FMD outbreak investigation, reporting and emergency control measures needed for Cambodia and Vietnam; further strengthening of diagnostic capacity; and, in-depth epidemiological studies as well as socio economic impact for the 2006 FMD outbreaks in Vietnam and Cambodia.

The Upper Mekong Working Group (UMWG) was held in Oudomxay, Laos, in January 2007 and the key recommendations were: the need to develop a protocol for outbreak investigations; National Rapid Response Teams to be established; prompt detection and reporting for the sub-region for immediate notification to the neighbouring countries; the use of strategic mass vaccination in control zones newly infected with FMD; closer monitoring of vaccine efficacy; and the development of emergency preparedness plans.

Dr. Fujita discussed the outcomes and said that the good work continued on zoning and animal movement in the region. He suggested the development of a Commission involving member countries for the Upper Mekong Region.
iv) **ADB/FAO Project Control of TADs in Southeast Asia**

Dr Subhash Morzaria explained that the project was part of the FAO/OIE GF-TADs and was a joint initiative. He described the constraints of globalization of trade in animals and products and the content of the project. This included the focus on FMD and CSF; the involvement of the Greater Mekong Subregion countries; membership of the Steering Committee; the need for regional cooperation; and the MOU signed between the six GMS Countries. He highlighted the strong alignment with the SEAFMD Progressive Zoning Approach (Appendix 34).

Dr Morzaria discussed the study to clarify the importance of livestock in the livelihood of poor farmers and the impact of TADs; the completed and definitive results are expected soon. First outputs of the study are included in the attachment. He advised that funding for Phase II 2007-2009 was likely. The project had also supported a second phase needs assessment study in Oudomxay in January 2007 and that pilot vaccination zones for FMD had been proposed in the Upper Mekong and Lower Mekong Control Zones. The People’s Republic of China (USD 500,000) and Japan Fund for Reduction of Poverty (USD 2.5 million) will fund this second phase.

v) **Control of FMD in the Yunnan Province**

Dr Li Huachun described the movement of livestock in the borders with Laos, Vietnam and Myanmar. He noted that there have been 23 FMD outbreaks in 9 Provinces of China and that they were due to the Asia 1 virus. There had been none in Yunnan Province in 2005-2006 (Appendix 35).

Dr Li described the control measures implemented including the vaccination strategy (mass vaccination twice a year under Chinese regulations) and slaughtering of sick and in contact animals. He advised that there were five FMD vaccine producers in China (one in Yunnan). In 2006, 95% of the susceptible animals were estimated to have been vaccinated. Research on the efficacy of vaccines had been undertaken in Yunnan Province particularly in pigs using neutralization antibody tests.

12. INTERNATIONAL COORDINATION AND SUPPORT (Component 1)

i) Member Country Reports

a. **Thailand**
   
   Dr Wacharapon discussed support to Laos and Cambodia by providing vaccines.

b. **Philippines**
   
   Dr Morales said the Philippines received AusAID funding for an FMD eradication programme. Also they continued collaboration with OIE RCU and other international organisations.

c. **Myanmar**
   
   Dr Khin Maung Win discussed the recent meeting of the Myanmar Zoning Working Group. He also described the support for sero-surveillance from AusAID and JICA.

d. **Malaysia**
   
   Dr Naheed said that they are in the process of arranging MTM meeting for June 2007.

e. **Laos**
   
   Dr Syseng said they have continued working with the LAARHP project of ACIAR which was completed in December 2006 with focused on research for CSF and FMD. However, it has been extended for one and a half years and will be working on animal disease control in Northern Laos. The EU farmer project in the Upper Mekong Zone also supported animal health activities.

f. **Indonesia**
   
   Dr Agus discussed the needs of international support to maintain FMD free status in Indonesia. He will be applying for funding to improve early detection system.

g. **Cambodia**
   
   Dr Sorn San said they received vaccines from Thailand and have requested OIE for a vaccine bank.

Dr Murray summed up with special thanks to Thailand for their support with vaccines and to AusAID for supporting Philippines for becoming FMD free.
ii) ASEAN Report and progress with Animal Health Trust Fund

Ms Femmy Soemantri reported that ASEAN Ministers on Agriculture and Forestry (AMAF) endorsement of the establishment of the ASEAN Animal Health Trust Fund (AHTF). The Fund has the priority of funding TADs crucial to ASEAN such as FMD, HPAI, and CSF. The ASEAN contributions for establishment of the AHTF are an important signal to donor communities of ASEAN’s intention to facilitate and support long-term sustainability of animal disease control in the region (Appendix 36).

Ms Soemantri said there were two types of funds. The first is a Seed Fund Account – where there are voluntary contributions from ASEAN Member Countries, International donor agencies and other funding sources. The second is a Project Fund Account where International donor agencies or the private sector make contributions for specific projects or activities. In this case the money will be used for projects to support implementation of regionalized disease control and eradication program (priorities are FMD, HPAI, and CSF, other economically important animal diseases) and must benefit the region or the majority of member countries. There is a criteria and system for project review and evaluation and the utilization of the funds shall (come from) or be approved by the ASWGL/SOM-AMAF. Projects will be approved and managed by a Regional Coordinator or Project Manager.

In the discussion, it was identified that current funding is not sufficient to support the transfer to ASEAN by 1 January 2008 and the money will need to come from somewhere else. This means that current arrangements on the management of the RCU under OIE will continue.

13. PROGRAMME MANAGEMENT, RESOURCES AND FUNDING (Component 2)

i) Status of FMD National Plans

a. Cambodia
Dr Sorn San said they are in the process of completing the revision of the National Plan and this will then be translated into Khmer before it is presented to the Ministry.

b. Indonesia
Dr Agus said that as Indonesia is FMD Free, there is no separate plan but part of a larger Animal Health Plan. With the help of the RCU they are developing an emergency preparedness plan. They are continuing with surveillance and planning to expand laboratory capacity on FMD.

c. Laos
Dr Syseng said that Laos has a National Plan until 2008. However, they are working with the RCU to update it to 2010. Activities on FMD follow the existing plan.

d. Malaysia
Dr Naheed said that Malaysia has a National Plan. Due to limited resources they are planning to refine the plan and are looking into privatising some of the components of the plan.

e. Myanmar
Dr Khin Maung Win said that they have a National Plan which targets the three control zones (MTM, Upper Mekong and Sagaing) and activities are focused on sero-surveillance, zoning and public awareness campaign.

f. Philippines
Dr Morales said they have a National Plan but it will need to be revised in-line with the situation of not having an FMD outbreak for the past 15 months, giving emphasis on final eradication and maintenance of FMD freedom. Funding from AusAID and from the government is available until 2008.

g. Thailand
Dr Wacharapon said the DLD has a plan in place which is for seven years time period and have an adequate budget of $4.6 million.

h. Vietnam
Dr Minh said that Vietnam’s plan is for 2006-2010 and this has been launched officially. It is assessed each year, particularly on the volume of vaccine needed. Budget for 2007 is adequate to implement the National FMD Control Plan.

It was suggested that these plans need to be consolidated into one document.
ii) **SEAFMD 2020 Roadmap**

Dr Ronel Abila presented on the SEAFMD 2020 Roadmap and explained that its goal was to provide the SEAFMD Campaign with a long term strategic vision to achieve FMD Freedom with vaccination by 2020. It aimed to maintain the OIE recognised FMD free zones without vaccination in Indonesia, Philippines, Malaysia and other areas by 2020 (Appendix 37).

Dr Abila said that the objective of the Roadmap is to employ a series of integrated and harmonised approaches to FMD control. The strategic areas identified are progressive zoning; strengthening international coordination and program management; mobilising stakeholder support; strengthening animal health control measures; strengthening policy and legislative support; strengthening capacity for emergency preparedness; and early detection and response.

The Roadmap emphasized the need for a strong political commitment from member countries to succeed in reaching its vision. The tools identified to employ in the implementation of the Roadmap include: regional and national coordination; zoning; vaccination strategy; emergency action plan; legislation and policy support; Minimum Standards and Definitions; training and capacity building; RRL and Laboratory network; Epidemiology network; a public awareness and communication network; and the Private Sector Consultative Committee (PSCC).

The main points raised in the discussion are:

- The Work Plan for the SEAFMD Campaign has been costed at around $600,000 per year;
- Costs are yet to be defined for FMD eradication for member countries and will do this through the national plans;
- The vision is to gain FMD freedom with vaccination but it doesn’t preclude it of achieving is some areas free without vaccination;
- The role of the Sub-Commission, Steering Committee, and the RCU in coordination of the campaign need to continue through to 2020 to reach this goal;
- Dr Vallat welcomed the proposal with some conditions and noted that SEAFMD 2020 will be achieved if:
  - Strong regional coordination is maintained,
  - China needs to be involved,
  - The majority of member countries secure funding for the National Campaign (and this will help influence donors with commitment shown),
  - There are efficient veterinary services in all member countries.
- Cost is a very important issue and the RCU and major costs need to be applied by member countries — this is important for member countries;
- Alliances with FAO, ASEAN and other donors and international organizations are important;
- It is important to work closely with neighbouring countries, without that the risk remains; and
- There is expertise in Asia but maybe not enough; need to develop more staff to manage disease control in the future.

14. **MONITORING AND EVALUATION (Component 8)**

   i) **SEAFMD Work Plan 2007 – 2008**

   Dr Abila gave a detailed presentation on the proposed SEAFMD Work Plan for 2007-2008 which included specific activities under each of the eight components (Appendix 38). The Sub-Commission favourably endorsed draft Work Plan.

15. **CONCURRENT MEETINGS OF DELEGATES AND OBSERVERS**

   i) **SEAFMD Delegates’ Meeting**

   The SEAFMD delegates met to discuss issues arising from the meeting and the Chair was Dr Gardner Murray and the Rapporteur was Dr Saraya.
The delegate from Laos raised the issue regarding assistance on getting 30,000 doses of FMD vaccine for emergency use due to the serotype A outbreak. The issue was further discussed at the end.

Drs Murray and Abila suggested that the direction for the next 13 year of Roadmap needs continual inputs to improve the SEAFMD 2020 document and encouraged member countries to incorporate strategic directions in the SEAFMD 2020 in their National Plans. Dr Minh (Vietnam) commented that although they have Plan for 2006 to 2010 for budget on vaccine, the national plan has to be modified every year.

Drs. Murray and Abila suggested that the document be published. The objectives were that the document be used by member country governments to provide information among member countries on what is going on in the Region as well as a supporting document when requesting external funding.

It was suggested that the final document 2020 to be ready for OIE approval in May 2007 General Session; all members agreed to this.

Dr Agus (Indonesia) raised the issue about China needing to be part of SEAFMD. Dr Murray said that approval of collaboration between member countries, and issues about China being a member of the Sub-Commission will be discussed at the General Session in May.

Dr Wacharapon (Thailand) suggested that Regional Cooperation should be signed by Ministerial level to facilitate the process of supporting, donating, and funding the member countries.

Dr Murray discussed the issue around the name ‘Roadmap’ but it was agreed that the name be retained. Dr Abila suggested that the Roadmap have three phases: 1) 2006–2010; 2) 2011–2015; and 3) 2016–2020. The meeting asked the members to focus on the 2006–2010 part of the Roadmap, and encouraged them to read the document and give feedback by the end of March.

Dr Abila discussed the funds needed by SEAFMD which is approximately USD 600,000 annually, which includes support for member countries for emergency assistance such as vaccination and public awareness during major outbreaks.

Dr Abila said that member countries will need to develop a proposal to submit to donors for funding support. This should include an annual budget over a three-year project period.

Dr Sorn San (Cambodia) asked whether or not the Roadmap can be combined with activities for HPAI. Dr Abila suggested that it should be focused on FMD, but in the implementation can be closely coordinate with other disease control program.

Members revisited the vaccine issue. Dr Murray emphasized that the vaccine is a tool and its strategic use is needed for a successful program. It was agreed that the RCU should explore the establishment of a vaccine bank for emergency use. Dr Chaweewan said that she was concerned about the matching of the vaccine virus strain with the field strain. This is important to avoid outbreaks or importing exotic strain to other country. It was also discussed about the need for a small vaccine bank and that the RCU should explore the possibility of asking developed countries to donate expiring vaccines from their vaccine bank, instead of disposing them.

The outcomes of SEAFMD Delegates Group meeting as reported to the plenary session were:

1. Regional Coordinators agree, in principle to the SEAFMD 2020 Roadmap document;
2. The delegates recommended that the term ‘Roadmap’ be retained;
3. The Roadmap document functions on three levels: 1) as a planning tool, 2) for use by member countries for government consideration and endorsement, and 3) for presentation to donors for the purpose of attracting external funding;
5. National Coordinators have been asked to consider the Roadmap and submit comments to Dr Abila at the Regional Coordination Unit, Bangkok by Friday 30 March so that the document can be finalised. After this time it will continue to be revised as appropriate;
6. Emphasis on the importance of collaboration with neighbouring countries, such as China and Bangladesh;
7. It was noted that more funding options are needed in the Roadmap;
8. There needs to be more emphasis put on collaboration with ADB, World Bank, FAO as well as other organisations in the Roadmap;
9. More to be included on vaccination issues in the Roadmap;
10. Emergency preparedness and response is an essential component;
11. Emphasis on the importance of veterinary services, developing and sustaining veterinary services is an essential component of the programme;
12. It was recommended that SEAFMD management remain under OIE for the immediate future, but with strong in-put and collaboration with ASEAN;
13. The SEAFMD should be comprised of both infected and free countries, as both situations must be taken into account;
14. The SEAFMD 2020 Roadmap will be finalized for presentation to the OIE General Session in May 2007;
15. It was recommended that the Roadmap be distributed to ASEAN Sectoral Working Group on Livestock (ASWGL);
16. Recommend to explore options of a formal document pertaining to SEAFMD cooperation to be endorsed by Director General/CVO, and if feasible to also get Ministerial level endorsement, to serve as a legal basis for sharing resources among member countries.
17. Development of a small vaccine bank to support member countries in emergency situations.

ii). Observer Delegates’ Meeting

The meeting was chaired by Dr Bernard Vallat, Director General of the OIE and attended by 43 participants coming from 8 countries and 9 international and regional organizations. Dr Teruhide Fujita and Ms Nichola Hungerford acted as rapporteurs.

1. OIE policies:
   The OIE reiterated its policy to Strengthen Veterinary Services to allow more countries to obtain FMD free status and to promote trade of livestock and livestock products without, however, taking undue risk in the spread of animal pathogens. OIE would also encourage the development and enforcement of new appropriate legislation in accordance with the fourth OIE Strategic Plan.

2. SEAFMD Roadmap 2020:
   a. The meeting agreed in principle to the Roadmap, which it considered to be a little ambitious but applicable. However, the document needs to be reviewed taking into account the following issues:
      - The role and commitments of member countries need to be more clearly spelt out, particularly in terms of funding. Without such commitments, external donors would be very reluctant to provide aid.
      - The FMD free status needs to be more clearly defined in terms of the projected periods required to attain such status with or without vaccination.
      - The various costs involved should be more detailed and analysed.
      - More information should be provided on vaccines, common vaccination policies, antigen and vaccine banks and medium policies regarding stamping out and compensation mechanisms.
      - Section 11 of the document should be reviewed to include the contribution of FAO and other collaborators.
   b. The magnitude and importance of the document should be explained to ASEAN Member Countries during the forthcoming meeting of the ASWGL to be held in Brunei.

3. Sustainability of SEAFMD Programme:
   - The meeting supported the good governance of the SEAFMD Programme.
   - The OIE Special Trust Fund is operational but funds available so far do not allow sustainability of the Programme. It was noted that only four countries have so far provided the 10% additional contributions that were required of them to support the Programme. Member Countries are thus strongly urged to meet their financial obligations. In the meantime, the Programme will continue with external funding which should be further enhanced.

4. Donors:
   a. Donors present expressed their appreciation for the achievements of the Programme and its good governance.
   b. Regarding the support until 2010, the governments of Australia and New Zealand will consider to continue their support to the Programme.
c. The representative of JICA commented that part of the Fund to be allocated for the Second Phase of the Animal Health Project in Southeast Asia may be used for FMD control in the region.
d. Technical assistance will be provided in epidemiology by CIRAD and diagnostics by the Republic of Korea.
e. The meeting also recognized the positive contribution of the FAO which now forms part of the SEAFMD Sub-Commission, as well as its activities regarding national programmes on animal disease control.
f. The support of Australia towards country programmes such as those in the Philippines and Vietnam was also acknowledged.

5. The Meeting reiterated the importance of the strong collaboration with the private sector which plays a major role in facilitating transport of samples to WRL, supply of reagents and the potential role it can play in the development and maintenance of vaccine banks.

6. Miscellaneous remarks:
   a. The Meeting applauded the participation of PR China and strongly recommended its active participation in the SEAFMD Programme as a whole.
   b. Comments on the inclusion of the concept of compartmentalization in the OIE surveillance guidelines for FMD were noted. OIE advised that the application of the concept to FMD would be dealt with prudently and an initial step to be made applicable only to integrated pig production systems.

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

Dr Murray presented the outcomes of the SEAFMD delegates meeting and Dr Sibartie then presented the recommendations from the observer participants meeting and these were discussed and modified for inclusion in the recommendations from the meeting.

16. FIELD TRIP REPORT

The group visited a community vaccination program in Prey Kroh and Beng Villages in the Krobey Reil Commune, Pouk District near Siem Reap. Over 1,000 cattle were being vaccinated for haemorrhagic septicaemia. The government has a twice yearly vaccination programme in all provinces. The Animal Health Worker (AHW) informs the village chief three days before to encourage all farmers to bring their livestock for vaccination. This programme is also an important venue for awareness raising and education and each farmer left with information about HPAI and other diseases once vaccinated. The AHW and the Chief of the village kept records of each farmer and their cattle which were vaccinated. In the afternoon the group visited the historic World Heritage Site of Angkor Wat. This field trip was a highlight for many of the participants and was very well organized.

17. OIE AVIAN INFLUENZA MEETING

The meeting was chaired by Dr Gardner Murray. In his introductory statement he noted that the purpose of this meeting was to learn key issues about avian influenza from international organisations.

Dr Bernard Vallat gave a presentation “OIE Global Programme – Good Governance”. He described the OIE/FAO programme on Good Governance which includes strengthening of veterinary services and the involvement of public sector in animal health. He stressed the need for appropriate legislation and strict implementation through national animal health systems. He said what was most important for combating diseases like highly pathogenic avian influenza (HPAI) was early detection, transparency, notification and rapid response. He discussed the need for all governments to build and maintain veterinary services in each country and the effect of one country having an impact on the rest of the world (Appendix 39).

Dr Vallat identified investment priorities: 1) Capability for early detection, rapid response and preparedness, including compensation; 2) National chain of command in case of national disaster; and 3) Laboratory twinning programme, allowing alliance between regional laboratories and OIE reference laboratories.

Dr Vallat concluded by explaining the OIE World Animal Health and Welfare Fund which was set up to help with the development of animal health systems in member countries. The OIE’s Emergency AI Vaccine Bank was described and the relevance of this to the development of an FMD Vaccine Bank by SEAFMD.

A discussion followed around the lack of coordination and vaccines for Avian Influenza in Indonesia. Dr Vallat said that the OIE has found a strong need to support Veterinary Services both politically and financially. He said that a team of certified experts will be sent from OIE to give Indonesia more power to fight AI and other emerging
Dr Joseph Domenech gave a presentation about the progress of FAO Global AI Programme. He summarised the progression of outbreaks globally. Dr Domenech highlighted the importance of controlling disease in animals in order to lessen or remove the risk to humans. In Vietnam, Cambodia and Laos, the response has been rapid and disease well controlled, stressing the value of early detection and early reaction. When there is enough resources and investment improvements can be made. Major existing problems, virus is still circulating and some countries are not progressing quickly enough in recognition, reporting, and response (Appendix 40).

To respond to emergency diseases like AI, FAO has implemented a number of initiatives to manage emergency disease crises such as: Emergency Centre for TADs, Special Fund for Emergency and Rehabilitation Activities, Chain of Command, Technical Cooperation Programmes and Trust Funds.

Dr Domenech discussed the importance of a global/holistic approach to disease control and the socio-economic considerations and stated the importance of sub-regional networking at the level of network of surveillance teams and network of diagnostic laboratories. He concluded by saying that many incidences over the last 10 years were thought to be due to globalisation and that there is a need to invest in animal health prevention and control.

Dr Teruhide Fujita from OIE Tokyo gave a presentation on the progress of OIE Regional AI programme in Southeast Asia. Dr Fujita outlined the collaboration mechanism of the programme. OIE funding towards HPAI is through a Special Trust Fund Project for AI control and had an ongoing funding as part of the GF-TADs programme. The four components to the OIE HPAI project are: 1) to encourage the improvement of regional and national HPAI control strategies including the development of a contingency plan; 2) to encourage HPAI information sharing to further strengthen regional early warning systems; 3) to strengthen diagnostic capacity of regional collaborating laboratories and national reference/diagnostic laboratories for HPAI including the holding of training courses on advanced HPAI diagnosis and installation of high-performance diagnostic equipment; and 4) to hold training courses for field veterinarians and veterinary para-professionals on HPAI strategic surveillance.

Dr Fujita concluded by saying the future of the project will have the development and improvement of Regional/National Strategies; the development of Animal Health Information Systems; the provision of modern equipment for capacity building on diagnosis and surveillance. Hands-on Training for laboratory staff and Training Field Veterinarians and Para-professionals will also be conducted (Appendix 41).

Dr Julie Delforce from AusAID outlined the history of AusAID support including the AUD 100 million commitment to emerging infectious diseases. Dr Delforce noted that this support is consistent with its current policy and program directions in areas such as health, rural development and regional cooperation. She said that the programme was not limited to AI, but to all emerging infectious diseases (Appendices 42 and 43).

The biggest programme for AusAID currently in Southeast Asia is in Indonesia. This programme includes an inter-sectoral approach to control AI & strengthen infectious disease surveillance; participatory surveillance/ response program; veterinary laboratory capacity building; inter-province quarantine; and pandemic influenza & emerging diseases prevention & preparedness.

Dr Alain Vandersmissen presented the status and perspectives of the European Union (EU) contribution to the global Avian Influenza response with the focus on Asia. Dr Vandersmissen said that the EU was one of the world’s major donors to AI, providing more than 50% of the world public aid. A top priority for aid effectiveness is national coordination and data sharing at the international level. He said on the regional level, transparency was considered of major importance. Specifically for Asia, cross-border cooperation in animal and human health is a priority. The EU aim is to develop and implement strategic, multi-sectoral plans and actions with respect to AI preparedness. For the short and mid-term, the aim is to strengthen the regional (ASEAN) and national capacity to exchange information, Technical Assistance to control AI to ensure rapid response and containment. For the long-term, the EU is hoping for 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 pandemic (Appendix 44).

Dr Noel Miranda discussed ASEAN’s HPAI Control Initiatives. Dr Miranda outlines the main Terms of Reference for the Regional Framework for the control and eradication of HPAI. The strategic areas of cooperation are: Disease Surveillance (Thailand); Containment Measures (Malaysia); Stamping Out and Vaccination Policy (Indonesia); Diagnostic Capability (Thailand); Establishment of Disease Free Zones (Malaysia); Information Sharing (Singapore); Emergency Preparedness Plans (Malaysia); and Public Awareness (Philippines) (Appendix 45).
The importance of progressing recommendations to actions was emphasized in order to move the regional framework forward. It was encouraged to strengthen regional networks. In conclusion, it was stressed that prevention and control of AI needs a unified framework.

Dr François Roger from CIRAD presented the RESTAD proposal for integrated research for TADs including AI in Southeast Asia. Dr Roger outlined in detail the CIRAD projects on HPAI in Southeast Asia which include training and research activities including a joint programme with FAO, CIRAD and Wetland International (Africa), and research activities in Asia. Regional programmes include: ECOFLU, Thailand, GRIPAVI, Viet Nam and RIVERS (EC), Cambodia. The aims, objectives and project activities were presented for each programme (Appendix 46).

Dr Kao Phal and Dr Sorn San from Department of Animal Health and Production Cambodia showed a video recently taken at a commercial duck farm in Sihanoukville, in southern Cambodia, as part of a communication and education programme for HPAI awareness. Information shown on this video is intended to be shown in all provinces. The systems used on the farm for feeding and provision of drinking water were shown.

Dr Murray expressed his and the participants sympathies to Dr Kao Phal and his family and to the family chief veterinary officer of Sihanoukville for the tragedy they suffered on 24 February 2007.

18. OIE/AUSAID PROGRAMME ON STRENGTHENING VETERINARY SERVICES AND CAPACITY BUILDING IN SOUTHEAST ASIA AND OCEANIA

Dr Bernard Vallat introduced the OIE PVS Tool – ‘Performance, Vision and Strategy: a Tool for Good Governance of Veterinary Services’. He noted that it will include self-evaluations with internal experts and external evaluations with independent experts. Gap identification and analysis can be used for national use for investment; external use for financial support; and use for international trade. Dr Vallat described the process for PVS evaluation (Appendix 47).

Dr Julie Delforce presented the AusAID/OIE Programme for Strengthening Veterinary Services in Southeast Asia. Dr Delforce said the ‘Regional Capacity Building Project’ will have eight to ten PVS evaluations in beneficiary countries which will include a training of regional evaluations experts on PVS, capacity building on emergency management, communications, legislation etc., as well as engagement of high level officials, Ministers, industry, other partners.

19. GENERAL BUSINESS

i) Finalizing Recommendations and Reports

Dr Gardner Murray chaired the session on finalizing the recommendations.

A draft summary of Major Statements and Recommendations from the 13th SEAFMD Sub-Commission Meeting was circulated to all member countries and participants. These included recommendations for Components 1 to 8 of the SEAFMD Campaign, results of the SEAFMD delegates and observers meetings, and other recommendations that had arisen from the meeting. Dr Murray stated that the Steering Committee had looked at the draft recommendations and agreed that they were satisfactory. He observed that of the many recommendations, some were for noting only and others required action. This reflected on the many current issues impinging on the SEAFMD including funding uncertainties, HPAI and other emerging diseases. The RCU will review the work program, in light of the new recommendations, available resources and the changing environment.

Dr Murray sought comments from member countries and observers on the recommendations, recognizing the wording of the draft recommendations would require some refining.

The meeting then considered each recommendation and after some minor modification endorsed the full set of recommendations. Members noted that a final list of recommendations (see front of this report) would be circulated shortly following the meeting and posted on the website. A full draft report will be circulated for comment.

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

Vietnam has been asked to host the 14th Meeting of the SEAFMD Sub-Commission and that the preferred date is from 10 to 14 March 2008 to allow for regular delegates to plan for their attendance well in advance. Members agreed to the recommendation and the Vietnam National Coordinator will consult on the request with the Vietnamese Government.
20. CLOSING CEREMONY

Dr Kao Phal, Director General of the Department of Animal Health and Production thanked all who were involved in the meeting with special thanks to his Department Staff and the OIE Secretariat. Dr Kao Phal said that the meeting had active participation and contribution from delegates from member countries, observer countries, development partners and private sectors have been observed.

Dr Gardner Murray thanked the Cambodian Government, the Siem Reap Province and the Department of Animal Health and Production for their excellent arrangements. Dr Murray said that the special meetings on avian influenza and veterinary services were very productive and the sharing of information will help us all understand and improve our approaches to managing Avian Influenza and Strengthening Veterinary Services. He concluded by saying that if we implement the recommendations of the SEAFMD programme we will have a great chance of achieving FMD freedom by 2020.

Dr Bernard Vallat, OIE Director General, congratulated the host country organisers and participants for a highly successful meeting. He stated that the SEAFMD campaign has achieved a tremendous progress and it is being used as a model world-wide. He also thanked donors including the vaccine companies, the laboratories providing assistance in diagnostics and sister organisations such as FAO. Dr Vallat concluded by calling on other potential donors to continue and reinforce the programme indicating that the Roadmap 2020 will not be successful without their support.

H.E. Nou Muth, Under Secretary of State of Ministry of Agriculture, Forestry and Fisheries said that the meeting indicated that there was a lot of coordination and sharing of valuable experiences which was necessary to develop new strategies for the implementation of the effective prevention of FMD within the region. He thanked OIE for its support in the successful organization of this meeting, and also thanked the national coordinators, development partners, and private sectors for their participation and contribution. H.E. Nou Muth declared the meeting closed.

ACKNOWLEDGEMENTS

The OIE Sub-commission for Foot and Mouth Disease in Southeast Asia acknowledges the continued support for the SEAFMD Campaign by its major supporters including OIE, the Australian Government through its overseas aid program AusAID, the Government of New Zealand, the Department of Livestock Development Thailand, the Government of France, the government of Japan through its JICA program, the OIE Japan Trust Fund, the FAO, ASEAN and the Governments of member countries. The Governments of the Kingdom of Cambodia and Siem Reap Province were thanked for their support and arrangements for this meeting.

The work of the rapporteurs Professor John Edwards, Dr Polly Cocks, Dr Stephane Forman, Dr Saraya Tavornpanich and Ms Nichola Hungerford, is greatly appreciated.
PROGRAMME

13th Meeting of the OIE Sub-Commission for FMD in South East Asia
(Siem Reap, Cambodia, 12-16 March 2007)

11 March 2007 (Sunday)

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

12 March 2007 (Monday)

08:30-08:50 Registration of participants
09:00-10:00 Opening Ceremony

Welcome Speech by Honorable Governor of Siem Reap Province, Cambodia
H. E. Sou Phirin

Speech by Director General, Department of Animal Health and Production, Cambodia
Dr Kao Phal

Speech by 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 Secretary of State, Ministry of Agriculture, Forestry and Fisheries, Cambodia
H. E. Chan Tong Yves

Official photograph
10:00-10:30 Tea break

Chair: Dr Chaweewan Leowijuk
Rapporteur: Dr Stephane Forman

10:30-10:40 Objectives of meeting and modus operandi
Dr Gardner Murray

10:40-11:30 1) Update on the world situation in relation to FMD
Dr Nick Knowles, Pirbright FMD Reference Laboratory

11:30-12:00 2) The SEAFMD report of achievement against 2006/07 Workplan
Dr Ronello Abila

12:00-13:30 Lunch break

Chair: Dr Chaweewan Leowijuk
Rapporteur: Dr Polly Cocks

13:30-15:30 3) Member Country Status Reports (presentations on FMD Status)
Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, Vietnam

15:30-16:00 Tea break
16:00-17:30 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, France, JICA, Japan-MAFF

19:00-22:00 Dinner hosted by OIE

13 March 2007 (Tuesday)

08:30-10.00 Chair: Dr Sorn San
Rapporteur: Dr Polly Cocks

5) Disease surveillance, diagnosis, reporting and 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) Regional FMD status in 2006 – Dr Stephane Forman
   iii) Analysis of FAO-ADB/France Sero-surveillance Data from Upper and Lower Mekong zones – Dr Stephane Forman and Dr Saraya Tavornpanich
   iv) Analysis of sero-surveillance data from Thailand – Dr Wacharapon Chotiyaputta

10:00-10.30 Tea break

10:30-12:00 Chair: Dr Syseng Khounsy
Rapporteur: Dr Polly Cocks

   v) Evolution of FMD serotypes in Southeast Asia – Dr Wilai Linchongsubongkoch
   vi) Epidemiological studies of FMD in Cambodia – Dr Tum Sothyra
   vii) Establishment of MTM EpiNet – Dr Polly Cocks
   viii) Recommendations to achieve objective for Component 4.

12:00-13:30 Lunch break

13.30:15:30 Chair: Dr Reildren Morales
Rapporteur: Dr Saraya Tavornpanich

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) Progress of FMD Regional Reference Laboratory – Dr Wilai Linchongsubongkoch
   iii) Update on the role carrier animals in FMD outbreaks – Dr Blesilda Verin
   iv) Multi-Criteria Analysis on FMD control measure in the MTM and Upper Mekong – Dr Carolyn Benigno
   v) Update of FMD Research studies from Murdoch University – Prof. John Edwards
   vi) Recommendations on future research and technology transfer – Chair.
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) Private Sector Consultative Committee report – Dr Sumeth Supchukun
iii) Traders and stakeholders meeting along the borders – Ms Nichola Hungerford
iv) Recommendations to achieve objective for Component 7.

15:00-15:30 Tea break

15:30-17:30 Chair: Dr Phan Quang Minh
Rapporteur: Dr Stephane Forman

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) Progress 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 Dewan Sibartie
iii) Animal Movement Management in the Mekong Region – Dr Teruhide Fujita
iv) Progress of the FAO-ADB control of TADs in GMS – Dr Subhash Morzaria
v) FMD Zoning in Yunan and Control of FMD in China – Dr Li Huanchun
vi) Recommendations to achieve objective for Component 5

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

14 March 2007 (Wednesday)

08:30-10:00 Chair: Dr Gardner Murray
Rapporteur: Ms Nichola Hungerford

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 and progress with Animal Health Trust Fund
iii) 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) Status of National FMD Plans – Country representatives
ii) SEAFMD Roadmap 2020 – Dr Ronello Abila
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 2007/2008 – Dr Ronello Abila
ii) Recommendations to achieve objective of Component 8

10:00-10.30 Tea break

13) Concurrent meetings for Groups I, II

Group I – SEAFMD delegates
Chair: Dr Gardner Murray
Rapporteur: Dr Ronello Abila and Dr Saraya Tavornpanich

Group II - Observer participants
Chair: Dr Bernard Vallat
Rapporteur: Dr Teruhide Fujita and Ms Nichola Hungerford

12:00-13:30 Lunch break
13:30-15:30 Continuation of Group meetings
15:30-16:00 Tea break
16:00-17:00 Reporting
19:00 Dinner hosted by Private Sector

15 March 2007 (Thursday)

07:00-08:00 Draft Report and Recommendations available to Delegates
Steering Committee Meeting

08:30-17:00 Field trip

Evening free

16 March 2007 (Friday)

OIE Avian Influenza Meeting

Chairman: Dr Gardner Murray
Rapporteur: Ms Nichola Hungerford

08:30-10:00
i) Progress of OIE Global AI Programme – Dr Bernard Vallat
ii) Progress of FAO Global AI Programme – Dr Joseph Domenech
iii) Progress of OIE/JTF AI Programme – Dr Teruhide Fujita
iv) Australia’s Response to AI – Dr Julie Delforce
v) EU Global AI response – Dr Alain Vandersmissen
vi) ASEAN Response to AI – Dr Noel Miranda
vii) RESTAD: integrated research for TADs including AI in SEA – Dr François Roger

10:00-10:30 Tea Break
10:30-12:00 Plenary discussion on future actions to control HPAI in Southeast Asia
12:00-13:30 Lunch
OIE/AusAID Programme on Strengthening Veterinary Services (PSVS) and Capacity Building in Southeast Asia and Oceania

Chairman: Dr Gardner Muray
Rapporteur: Dr Ronello Abila

13:30-15:30 OIE Programme to strengthen Veterinary Services
Introduction to PVS Tool
Dr Bernard Vallat

AusAID programme to support OIE to Strengthen Veterinary Services in Southeast Asia and Oceania
Dr Julie Delforce

15:30-16:00 Tea break

16:00-17:30 General Business

Chairman: Dr Gardner Murray, President
Rapporteur: Dr Ronello Abila and Ms Nichola Hungerford

i) Finalising Recommendations and Reports
ii) Date and venue for the next Sub-Commission Meeting
iii) Other Business

Close of Meeting

i) Representative from DAHP
ii) Dr Bernard Vallat, Director General of OIE

19.00-22.00 Dinner hosted by the Government of Cambodia

17 March 2007 (Saturday)

Departure of participants

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Rapporteurs:

Dr John Edwards, Chief Rapporteur

Members:

Dr Ronello Abila
Ms Nichola Hungerford
Dr Stephane Forman
Dr Polly Cocks
Dr Saraya Tapornvanich

SEAFMD 13th Sub Commission Meeting, Siem Reap, Cambodia
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WELCOME SPEECH

BY

H.E. SOU PHIRIN, GOVERNOR OF SIEM REAP PROVINCE

13th Meeting of the OIE Sub-Commission for FMD in Southeast Asia
12-16 March 2007, Siem Reap Province, Cambodia

- H.E. Chan Tong Yves, Secretary of State of Ministry of Agriculture, Forestry and Fisheries
- Dr Bernard Vallat, Director General of the World Organisation for Animal Health (OIE)
- Dr Gardner Murray, President of OIE Sub-Commission for Foot and Mouth Disease in Southeast Asia
- Dr Kao Phal, Director of Department of Animal Health and Production
- Distinguished delegates
- Ladies and Gentlemen

Today, I have a great honor and pleasure to join the important event on the 13th Meeting of the OIE Sub-Commission for Foot and Mouth Disease in Southeast Asia. The 12th Meeting held from 27th February to 3rd March 2006 in Chiangmai of Thailand, had adopted a wonderful land of Siem Reap province of the Kingdom of Cambodia to be the venue of the 13th meeting of the OIE Sub-Commission for Foot and Mouth Disease in Southeast Asia.

On this important occasion, on behalf of provincial authority and myself, I would like to welcome Excellency, Distinguished delegates, Ladies and Gentlemen for participating in this meeting held in Siem Reap.

Excellency, Distinguished delegates, Ladies and Gentlemen

Siem Reap is the heart of culture province of Kingdom of Cambodia where is rich in the ancient temples, the potential of natural resources, natural tourism places, and huge histories, which attract millions of national and international visitors every year. But, due to prolonged civil war, Siem Reap province, in particular numbers of ancient temples and infrastructure were almost destroyed. During the last few years, under the prominent leadership of Royal Government of Cambodia, numbers of temples have been preserved to serve the tourism as needed and to develop the countries.

I firmly hope that this meeting will be actively participated from Excellency, distinguished delegates, lady and gentlemen in order to raise the various ideas for discussion and to share the new experiences with the aim to effectively prevent foot and mouth disease. In consequence, contribution will be made to alleviate people poverty reduction in the region. Apart from the participation in this meeting, Excellency, distinguished delegates, lady and gentlemen will take the opportunity to visit a wonderful Angkor temple during your stay here.

I strongly hope that this meeting will be fruitful performance, success and bring further mutual benefit to livestock owners, farmers and traders of all regional countries.

Finally, on behalf of the provincial authority of Siem Reap and myself, I wish all Excellencies, distinguished delegates, lady and gentlemen with the best of health and have a nice stay in the wonderful land of Angkor and safe trip back to your own countries.

Thank you!!!
His Excellency Chan Tong Yves, Secretary of State, Ministry of Agriculture, Forestry and Fisheries

His Excellency Provincial Governor of Siem Reap

National and International distinguished guests

Ladies and Gentlemen,

On behalf of Department of Animal Health and Production and on my own behalf I would like warmly welcome and express my great pleasure to the presence of His Excellency, Chairmen, National and International distinguished guests, Ladies and Gentlemen who are attending solemnly occasion of the 13th Meeting of Sub-Commission for FMD in South East Asia and the purpose of this meeting is to report the progressive activities of FMD control in the South East Asia.

His Excellency
All Delegates
Ladies and Gentlemen

Foot and Mouth Disease is very important in the region and the world. All experiences showed that it is difficult for one country to control and eradicate the infectious disease. Live animals and its products are moved worldwide in the region and this movement can bring the agents/transmission of disease.

In this occasion, I would like to mention that animal husbandry such as cattle, buffaloes, pigs and poultry in the rural area of Cambodia is a main activity and their income. Animal husbandry plays an important role to reduce the poverty in the rural area and to ensure the food security. In Cambodia, production has 13.2% of GDP.

At present, animal health is one main problem in productive improvement. Cattle, buffaloes, pigs and poultry are affected by infectious and parasitic diseases with high morbidity and mortality. Lack of animal management and feed are the factors which cause animals to be susceptible. Foot and mouth disease is infectious disease, spread widely as well as economic losses and it impacts to trade of animals and its products in the country and outside the country.

In 2006, 53 outbreaks of FMD occurred in 13 provinces: Krong Preash Sihanouk (Khan Prey Nob), Krong Keb (Khan Keb and Damnak Changhuer), Prey Veng (Kampong Trabek district), Banteay Mean Chey (Preash Neth Preash, Thmar Pouk, Phnum Srok and Svay Chek districts), Battambang (Moung Russei, Sangkae, Banan, Samlooth, Kaskralor and Rattanak Mondul districts), Takeo (Tramkok, Treang and Prey Kabbas districts), Kampot (Banteay Meas, Angkor Chey and Chulkiry districts), Kampong Cham (Cheung Prey district), Kampong Chhang (Samaki Meanchey, Tek Phus) and Kampong Tralach districts), Kandal (Kandal teung, Kean vay, Leuk Dek, Lavea Em, Mukampoul, Ang nuol and Sa’ang districts), Kracheh (Chhloung, Sambo, Preak Prasob and Snouol districts), Kampong Thom (Steung Sen district) and Kampong Speu (Orop, Phnom Srouch, Basedth, Udong, Somrong Tong and Thpong districts) and caused a lot of cattle, buffaloes and pigs were sick and dead: 11,409 heads of cattle, 1,131 heads of buffaloes and 266 heads of pigs were sick and 222 heads of cattle, 3 heads of buffaloes and 18 heads of pigs died.
Animal movement

In 2006, there are two kinds of animal movement (within the country and outside the country):

1. Movement to outside the country

   - 10,760 heads of cattle were exported to Vietnam
   - 12,190 heads of monkeys were exported to China and United State of America.

2. Movement within the country

   24,062 heads of cattle, 236,535 heads of pigs and 1,117,991 heads of poultry were moved inside the country.

Control measures for foot and mouth disease

Department of Animal Health and Production of Ministry of Agriculture, Forestry and Fisheries has the national strategy to prevent the spread of Foot including vaccination programme to vaccinate all animals but at the present time, Department of Animal Health and Production can not implement because the government has limited budget so that the Department of Animal Health and Production need the assistance from international organisations to prevent the spread of FMD.

Currently, when FMD outbreaks occurred, Department of Animal Health and Production put the control measures both legislation and veterinary measures to prevent the disease, investigate, sampling and make the treatments as well as do public awareness on FMD. In 2006, the Department of Animal Health and Production distributed a total of 19,000 doses of FMD vaccine to the following provinces:

- Banteay Mean Chey  1,000 doses
- Battambang     1,000 doses
- Kampong Cham   1,500 doses
- Kampong Speu   1,500 doses
- Kampong Thom   1,200 doses
- Kampot         1,500 doses
- Kandal         1,500 doses
- Kracheh        500 doses
- Prey Veng      3,000 doses
- Pursat         1,000 doses
- Ratanakir      500 doses
- Siem Reap      1,000 doses
- Krong Preah Sihanouk 500 doses
- Svay Rien      1,500 doses
- Takeo          1,500 doses
- Phnom Tamao cattle breeding station 300 doses

In 2006, the Department of Animal Health and Production also received 10,000 doses of FMD vaccine from APHCA/FAO/RAP and these vaccines were distributed to 4 provinces bordering with Thailand:

- Banteay Mean Chey  4,000 doses
- Battambang     4,000 doses
- Pursat         1,000 doses
- Krong Pailin   1,000 doses

His Excellency
All Delegates
Ladies and Gentlemen

This meeting, I strongly hope that all of you would share ideas and do all your best to find out the solution key-issues and also take an effective measure in control of Foot and Mouth Disease in South East Asia.

Finally, on behalf of Department of Animal Health and Production and in on my own behalf, I would like to wish you have good luck, all the best with you and the meeting get a successful and fruitful performance.

Thanks.
Your Excellency, Honourable Minister of Agriculture and Forestry, Kingdom of Cambodia
Your Excellency, Honourable Governor of Siem Reap Province
Dr Gardner Murray President of the OIE Sub-Commission for FMD in Southeast Asia,
Dr T.Fujita, OIE Representative for Asia and the Pacific,
Dr Kao Phal, Director General, Department of Animal Health and Production, Cambodia

Excellencies
Distinguished guests
Ladies and Gentlemen,

First of all I would like to express my gratitude to the Government of Cambodia for hosting this important meeting to review progress achieved in the SEAFMD Campaign and the progress made by the Member Countries.

I would also like to present my sympathy to Dr Kao Phal, Director General, Department of Animal Health and Production, Cambodia for the tragic accident that inflicted his family recently.

I wish to express my gratitude to the various donors and governments for their support to SEAFMD Campaign. I would like to give my special thanks to the Australian Government which has been the main provider of funds to the SEAFMD Campaign since it started in 1997. In October last year, the Australian government renewed its support to fund the operations of the SEAFMD Campaign from November 2006 to December 2007 ensuring the active continuation of the Programme until the end of this year. The New Zealand government also started to support the SEAFMD in the latter part of 2005 and was main provider of resources for the operations of the SEAFMD Campaign in 2006. The French government also started to support SEAFMD Campaign in 2004 with the appointment of Dr Stéphane Forman as Technical Advisor and in 2006 it provided some funds for Dr Forman’s operations for capacity building and for surveillance activities in the upper and lower Mekong.

Japan also provided on the spot support, especially for our meetings since the beginning of the SEAFMD programme.

Let me also give my special thanks to OIE Tokyo for continuously supporting the SEAFMD Campaign from the very start until today and the Government of Thailand for hosting the SEAFMD Regional Coordination Unit, and providing financial and in-kind support to the programme. But most of all, I would like to express my greatest thanks to the eight member countries of the SEAFMD Campaign – to Cambodia (our host for this year’s meeting), Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand and Vietnam – for your unwavering commitment to continue the programme which is considered as a model worldwide. Without your support, the SEAFMD Campaign is bound to fail.

It is quite appropriate that this year’s meeting is located near a historical place like Angkor Wat, because this year is also a historical event for SEAFMD. This year marks the 10th year since the establishment of the SEAFMD Regional Coordination Unit (RCU) in Bangkok in September 1997, and also marks a decade of fight against FMD. The decision of the OIE Sub-Commission to establish an RCU is in line with the principle that the key to success in controlling transboundary diseases lies in the efficiency of an independent and focused international unit. Indeed, over ten years the role of the RCU has been recognised as essential for the successful implementation of the programme. The role of RCU is to facilitate international co-ordination and harmonisation of strategies to control FMD in the region. It also tailors the regional disease control process to the needs of the nations involved in the SEAFMD. Experience in the region demonstrates that external inputs are required to assist in developing national FMD control programmes. RCU has encouraged wherever possible the collaboration of international animal health projects with the national FMD control plans. It has also engaged Ministers and key policy makers to provide support to national FMD control programmes.
What are the key achievements of the SEAFMD campaign in the past 10 years?

I would say that the biggest achievement of the SEAFMD Campaign has been the provision to member countries of a common vision and strategy in controlling the disease. The multi-pronged approach used by SEAFMD campaign has been very effective and is now being looked upon as a model by the international scientific community to control other transboundary animal diseases and zoonoses, especially avian influenza. The strong emphasis on international coordination, programme management, policy development, strengthening epidemiology and laboratory network, public awareness campaign, research and technology transfer and private sector integration, has been effective in bringing together member countries to act in unison to control FMD. National FMD control programmes were harmonised with the regional programme, ensuring closer collaboration among member countries. Several pilot projects such as those covering the Malaysia-Thailand-Myanmar (MTM) Peninsular Campaign, the Upper and Lower Mekong zones set up to implement progressive zoning and bring together countries sharing borders to work in close collaboration to control the disease in the designated zone have been particularly appreciated. Success achieved in these zones shall be replicated in other parts of the region until such time that FMD is brought under control. As shown by the SEAFMD Campaign, the effective control of transboundary animal diseases requires strong commitment and political will from member countries as well as a close intergovernmental collaboration.

Excellencies, ladies and gentlemen

FMD remains a major international animal epizootic which continues to inflict significant economic losses and cause major concerns particularly to smallholder farmers as well as governments. FMD can inhibit agricultural production, and it can severely restrict trade in livestock and livestock products within and outside the region. In Southeast Asia, livestock represents an asset and important source of income for individual farmers, villages, regional and national economies. Working animals and trade in livestock provide regular cash flow from production, sale of produce, transport and communication that affect wealth and well-being across all cultures, genders and social structures. Livestock play an important role in poverty alleviation and community development through employment and reduction in population drift, and is an important element of food security. Thus, the importance of controlling FMD is this part of the world remains a high priority.

Although FMD is still endemic in large areas of Southeast Asia, some countries are slowly gaining ground in their battle to get rid of the disease. When the programme started in 1997 it was only Indonesia that was recognised as an FMD-free country. During the implementation of the Campaign, the zones of Sabah and Sarawak in Malaysia, and the central and southern islands in the Philippines were recognised by the OIE as free from FMD without vaccination. The Philippines has significantly achieved a big step forward in its eradication programme with no outbreak recorded last year. With most of the islands in the region cleared of FMD, the battleground is now shifting to the mainland of Southeast Asia. Knowing the tenacious character of FMD, and the limited resources at hand, the progressive zoning being implemented by SEAFMD Campaign is understandably the right approach to combat the disease.

The efforts made by the SEAFMD Campaign to better understand the epidemiology, the geographic distribution and seasonal pattern as well as identifying the risk factors that greatly influence its transmission and survival, have rendered member countries far better equipped in formulating strategies to fight the disease. Transparency in reporting is improving year after year but this may give the impression that the numbers of outbreaks reported are on the increase. Submission of samples to diagnostic laboratories for virus serotyping also continues to increase. This indicates a continuous improvement of the surveillance system in member countries. I would thus like to urge SEAFMD member countries to continue in investing resources to improve their surveillance capacities. It must not be forgotten that any investment required for strengthening Veterinary Services in general or surveillance capacities, is insignificant compared to the enormous economic losses incurred during outbreaks of animal diseases such as FMD and zoonoses such as avian influenza.

The success of any disease control and eradication programme relies heavily on the capacity of the country for early detection and rapid response. Complementary to an effective surveillance system, the veterinary services of the country must also have a robust public awareness campaign. The role of communication is crucial to get the support from all the stakeholders – farmers, traders, private veterinary practitioners, other government agencies, politicians and other policy makers. Support is needed from farmers to report early any disease outbreak detected in their livestock. Support is needed from traders to follow OIE and SPS measures for safe movement of livestock and livestock products. Support is needed from other government agencies like customs and police to control illegal trade. All of this support can only be achieved through a vibrant and effective communication campaign. Without the support from all the stakeholders, any disease control programme is bound to fail. I am indeed grateful that the SEAFMD Campaign has put great emphasis on this component.
Excellencies, ladies and gentlemen.

The OIE would like to congratulate ASEAN Ministers of Agriculture for finally signing the agreement on the ASEAN Animal Health Trust Fund. Under that arrangement, the OIE will continue to provide technical and policy supervision to the programme through the maintenance of the OIE Sub-Commission which serves as a platform to discuss scientific issues and formulate strategic direction for SEAFMD Campaign.

Despite the signing of the agreement, it is feared that it may take approximately three to five years to collect the committed amount to the Trust Fund. Thus, we still need the support of the donors for the continuous implementation of SEAFMD Campaign in the immediate future. As of now, we are assured of funding only until December 2007. Hence, I appeal to donors to continue their support to SEAFMD Campaign, in particular, to have an assured funding for another three years after December 2007.

The OIE is also looking forward to start the AusAID/OIE “Project to Strengthen Veterinary Services to Combat Avian Influenza and Other Priority Diseases in South East Asia”. I believe that this meeting is very appropriate to discuss and officially launch. This project which is of paramount importance for the region as without efficient Veterinary Services, the control or eradication of major animal diseases will remain a dream.

We also highly appreciate the benefits of the Japanese OIE/FAO special programme for HPAI Control in South-East Asia, especially on capacity building and laboratory support.

There are several challenges ahead and OIE promises all its support to countries of the region to face those challenges.

On behalf of the OIE and in my own personal name, I wish you a fruitful meeting and every success in the control and subsequent eradication of FMD from South-East Asia.

Thank you for your attention.
OPENING SPEECH
BY
H.E. CHAN TONG YVES, SECRETARY OF STATE
MINISTRY OF AGRICULTURE, FORESTRY AND FISHERIES

13th Meeting of the OIE Sub-Commission for FMD in Southeast Asia
12-16 March 2007, Siem Reap Province, Cambodia

His Excellency Sou Phirin, Governor of Siem Reap Province,
His Excellency Dr Bernard Vallat, Director General of the World Organisation for Animal Health (OIE)
His Excellency Dr Gardner Murray, President of the OIE Sub-Commission for FMD in Southeast Asia
Excellencies, Ladies and Gentlemen, and Distinguished International and Local Guests,

First of all, may I remind you that the 12th Meeting of the Sub-Commission for Foot and Mouth Disease in Southeast Asia held on 27th February till 3rd March 2006 in Chiang Mai City, Kingdom of Thailand has quickly one round turned, which had experienced with good recommendation and full of sincere hope.

Today, the 13th Meeting of the Sub-Commission for Foot and Mouth Disease in Southeast Asia, which we all are about to celebrate on the wonderful land of Angkor Wat Temple of our country, Cambodia. This is also an opportunity for us to use this very important podium to find the strategies against the foot and mouth disease in the framework of the international cooperation. On behalf of the Royal Government of Cambodia, the Ministry of Agriculture, Forestry and Fishery, and myself, I would like also to take this opportunity to express my sincere pleasure for welcoming Excellencies, Ladies, Gentlemen, international and local experts, who are coming from different countries for participating in the important meeting.

In this occasion, we all are working on a new campaign to search for strategies in fighting against the animal diseases, which affect the animal and people health. Amongst these diseases, the foot and mouth disease is the infectious disease, which quickly spread over Cambodia as well as other countries in the world. This 13th Meeting will focus on the discussion in dept in the aim of:

1- Assessing on the achievement and the progress of the past joint cooperation.
2- Sharing experience in the planning and consolidating partnership at the national and international levels, especially, at the region with a well coordinating mechanism.
3- Discussing on the financing to prevent the spread of this disease, in the aim of poverty reduction of the people in the countryside as stated in the objective of the twentieth world millennium until year 2015.

Excellencies, Ladies and Gentlemen

Every year, Excellencies, Ladies and Gentlemen are often meeting together to make discussion on the key issues and to raise the subject for different intervention in aim of finding different strategies to reduce the spread of the animal disease to the maximum with sustainability. This is an additional work to raise the living standard of the farmers, who are solely relying on using the animal for traction power, for producing organic fertilizer or biogas or for increasing family revenues through the exploitation of these animals.

In the speech of Mr Kao Phal, Director of Department of Animal Health and Production of the Ministry of Agriculture, Forestry and Fisheries, in particular I have carefully listened to the Speech of His Excellency Dr Gardner Murray and His Excellency Dr Bernard Vallat, have obviously shown all different achievements extracted from active works of the Sub-Commission of Foot and Mouth Diseases in Southeast Asia of the World Organisation for Animal Health (OIE), in the last year and its work plan need to be implemented in the year 2007.

Besides the infectious animal diseases as mentioned above, there is also a most popular disease, which, Excellencies, Ladies and Gentlemen are well aware of, that is the bird flu, which occurred in a number of countries. This disease heavily affects on the family and national economy, which quickly spread all over, and the mortality rate is high. In Cambodia, we do not have many commercial poultry farm but, this small country was also suffered from it. Nevertheless, since the occurrence of bird flu in Cambodia in 2004, the Ministry of Agriculture, Forestry and Fisheries issued successive strategies including both law and technical measures with the close cooperation with national and
international organization, and serious action taken firmly by the royal government of Cambodia with the promising results.

In this occasion, I would inform you the sector of animal health and production in Cambodia. Until now, the smallholder animal husbandry based in 2006 as follows:

- Total of cows: 3,344,712 heads, which increased from last year by 4.8%
- Total of buffaloes: 724,378 heads, which increased from last year by 6.59%
- Draught animal: 1,740,616 heads, which decreased from last year by 0.35%
- Total of pigs: 2,740,815 heads, which increased from last year by 1.9%
- Total of birds: 15,136,065 heads, which increased from last year by 0.33%

As far as the commercial animal raising is in small scale, and the animal production in Cambodia is about 13.2%, which is the grand total of the agricultural production. For the information on the spread of foot and mouth disease (FMD) in the Kingdom of Cambodia, Mr Kao Phal, Director of Department of Animal Health and Production has already mentioned.

It is true, the above-mentioned data shows the increase in animal production in Cambodia, and however, this increase appears to be slower as compared with the other countries in the region. This is due to many factors, for example, low quality of animal feed, the traditional way of raising animal, limited research studies, low quality of animal breeds, in particular, the mortality rate is high because of many different diseases and the natural factors caused by draught and flood, etc.

In Cambodia, the animal diseases, which caused high mortality rates, are as follows:

- anthrax, haemorrhagic septicemia, blackleg, FMD for cattle and buffaloes
- swine fever, pasteurellosis, salmonellosis and FMD for pig
- cholera and Newcastle for poultry.

Amongst these diseases, that is only the FMD, which hardly affect the family-based economy and national economy. The 85% of the population are farmers based and relied on cows, buffaloes, which are used for the main traction power and agricultural cultivation. Every year, due to FMD, the agricultural activities of farmers would be delayed. Their cows, buffaloes could not be sold and farmers had to spend money to treat their animal. In particular an international trading of animal and animal production is limited. Meanwhile, the Ministry of Agriculture, Forestry and Fisheries was committed to preventing FMD for many years and is currently establishing a disease-free zone. These works can be achieved as long as the active participation and cooperation with NGOs, international organisations, and member countries with sustainable activities will be done.

Excellencies, Ladies and Gentlemen,

Our responsibility for participating in this 13th Meeting is to find ways to set a work plan for a short term, medium term and long term in the context to effectively prevent the widespread of the disease with a firm hope of the future. To ensure the success of this meeting, achieve a positive result, and ensure the animal health in particular people welfare of country members of OIE, I would like to take this important occasion, to draw your attention on the recommendation in the following:

**First** – Continue to support the validity of all five important recommendations made by His Excellency Dr Gardner Murray, which was raised in the past 12th Meeting in the transition period of management and governance to ASEAN as follows:

- a- Zoning will be continued and refined
- b- There will be more work with trader as an essential group
- c- Transition to ASEAN arrangements
- d- Adoption of SEAFMD model to other disease
- e- A special meeting would be held on Friday to discuss avian influenza

**Second** – Consider in general the strategic arrangement and medium and long term planning to improve the animal health services and training programmes, research studies with focus on the practical application in line with the situation of each country for the benefit of the farmers. In addition, national and international network is established to make an effective intervention on the control of animal hygiene and health. In particular, epidemio-surveillance network is enhanced.
Thirdly – Strengthen the cooperation by sharing experiences and resources between national and international research organizations to increase the relationship with a constructive and trusted manner for mutual benefits, which aim to effectively implement strategic plan and other programme stated from in the minute of this meeting, in particular in the framework of ASEAN Sectoral Working Group on Livestock (ASWGL) and the continuation of bilateral cooperation with countries in the region.

Again, on behalf of the Ministry of Agriculture, Forestry and Fisheries, I would like to take this special occasion to express my sincere thanks to World Organisation for Animal Health (OIE), who has assist with all possible mind and budget in organizing the 13th Meeting in the wonderful land of Angkor Wat of Siem Reap province. I firmly hope that the initiative and experiences learned from this meeting will help the implementation in effectively preventing the widespread of other diseases for people well-being. On the other hand, this meeting is the important podium for us to share new experiences to deal with the problem which is facing, with the aim of the effective implementation in each country.

Last but not least, I wish you all the best in every way to Excellencies, ladies and gentlemen. I also wish this 13th Meeting will be succeeded in accordance with its endeavor as planned. And I firmly hope that the cooperation between each country in this field will achieve its objectives with an assured future.

I wish Excellencies, Ladies and Gentlemen, and international guests, for a happy stay and good memories, and receiving a success in your works. I would declare to officially open the 13th Meeting of Sub-Commission of FMD in Southeast Asia (OIE) from now.

Thank you.
THE SOUTHEAST ASIA FOOT AND MOUTH DISEASE CAMPAIGN PROGRESS REPORT (MARCH 2006 TO FEBRUARY 2007)

Purpose:
To advise the 13th Meeting of the OIE Sub-Commission for FMD in Southeast Asia Foot and Mouth Disease (SEAFMD) Campaign on progress of SEAFMD campaign since the last meeting in Chiang Mai, Thailand in 2006.

Background:
The SEAFMD Campaign involves the coordinated control of foot and mouth disease by eight countries in the ASEAN region. These countries are Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand and Vietnam. The campaign is coordinated through an OIE Regional Coordination Unit (RCU) in Bangkok. The RCU delivers programmes as agreed by the OIE Sub-Commission for FMD in Southeast Asia.

The RCU is run by Dr Ronello Abila, Regional Coordinator; Dr Stéphane Forman, French Veterinarian working as Technical Advisor on disease surveillance; Ms. Nichola Hungerford, an Australian volunteer who joined the RCU starting April 2006 as the new communication officer; and, Khun Chutikarn Dhebhasit, part-time Secretarial Assistant.

The 12th Meeting of the OIE Sub-Commission in Chiangmai, Thailand evaluated the outcome of SEAFMD RCU’s annual work plan and approved a new workplan for 2006-2007. The progress against this work plan is the basis for this report.

Component 1: International co-ordination 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 12th Meeting of the OIE Sub-Commission was held in Chiangmai, Thailand from 27 February to 3 March 2006 and the main outcome were the progress reports of member countries, advances in progressive zoning, Donor’s Meeting to get support for Phase III. The preparation for the transition of SEAFMD campaign to ASEAN was also discussed. To contribute controlling HPAI in the region, a one-day meeting was held on the last day of the 12th Sub-Commission meeting to discuss progress on the control and prevention of HPAI.

- Two meetings of National FMD Coordinators were held in February and August. A brief meeting of the national coordinators was held in February 2006, a day prior to the Sub-Commission meeting, mainly to discuss some issues that may need specific attention by the coordinators. The midyear meeting in August 2006 tackled the progress of individual country FMD control programmes, discussion on the outcome of FMD surveillance in the Lower and Upper Mekong, how to further improve FMD reporting in the region, a planning workshop on improving national FMD plans, and a presentation on the evaluation of veterinary services using the PVS Tool.

- Linkage with ASEAN has been maintained. The Regional Coordinator participated in the 14th ASEAN Sectoral Working Group on Livestock Meeting in Hanoi in April 2006, and the Special 27th SOM-AMAF meeting held in Bohol, Philippines in August. The 28th meeting of AMAF in November 2006 finally signed the official Agreement on the establishment ASEAN Animal Health Trust Fund (AAHTF), including the quantum and timelines of contributions of member countries. The signing of the Agreement on the establishment of the AAHTF will pave the way for the ASEAN countries to put in their contributions to the AAHTF, part of which will be used to sustain the SEAFMD RCU under ASEAN management in the near future.

- There has been continued development of close linkages and co-operation with international agencies working in the region. e.g. AusAID, AFFA, the European Union, FAO, JICA, ILRI, IAEA and ADB.
• Drs Abila and Forman attended the OIE General Session in May and the Training on evaluation of veterinary services using PVS last July. Dr Abila also participated in the meeting of the Ad Hoc Group on PVS in November.

• The Regional Coordinator and staff carried out missions to Cambodia (preparation of sero-surveillance, conduct of training and KAP survey in the Lower Mekong zone, investigation of FMD outbreaks, assist in developing National FMD strategic Plan, meeting with CVO and Secretary of State) Indonesia (participate in the National FMD Seminar, meeting with CVO and visit to ASEAN secretariat), Laos (conduct training on sero-surveillance and public awareness, assist in revising National FMD programme), Malaysia (meeting with traders and other stakeholders in the Malaysia-Thailand border), Myanmar (assist in updating National FMD Plan, traders and stakeholders meeting in Thai-Myanmar border, and the zoning Working Group meeting in Mandalay), Philippines (meeting with BAI FMD Task Force and participate in the midyear assessment on FMD Task Force and veterinary quarantine), Thailand (visit Thai-Lao border in Nan province, livestock markets in Uta Pradit, and the Thai-Cambodia border in Sakaero), and Vietnam (conduct training on sero-surveillance and KAP survey in the Upper Mekong, meeting with Minister of Agriculture, CVO and veterinary officials to discuss strategies to control FMD epizootic, investigation of FMD outbreaks both in north and south).

• Missions to engage the Ministers and high ranking government officials were conducted by Dr Gardner Murray, President of the OIE Sub-Commission for FMD control in Southeast Asia, and Dr Abila. Visits were made to Thailand, Cambodia, Vietnam and Philippines. Missions to other SEAFMD member countries are scheduled during the first half of 2007.

• The Regional Coordinator also carried missions to China to discuss sero-surveillance control activities in southern part of Yunnan as part of the Upper Mekong zone, and to Murdoch University in Perth, Australia for the planning workshop on the establishment of MTM Epidemiological Network with support from AusAID SPS Capacity Building project.

• The SEAFMD RCU also participated in other seminars/meeting: CDC Seminar on emerging diseases (Atlanta, USA), IDRC Meeting on avian influenza research (Beijing, China), APEC Meeting on avian influenza (Danang, Vietnam), FAO/OIE Seminar on avian influenza in wildlife (Rome, Italy), ARAHIS Workshop (Singapore), FAO/ADB Control of TADs in Mekong Countries Project Steering Committee Meeting (Kunming, China), OIE/FAO Japan Trust Fund Project Steering Committee Meeting (Bangkok, Thailand), OIE/CIRAD Epidemiology Training (Bangkok), presented a paper at the 11th ISVEE Conference (Cairns, Australia), OIE Workshop on regional information system for avian influenza and other TADs (Bangkok), EU Seminar on biological weapons (Bangkok), and Global FMD Technology Roadmap (Agra, India).

• The Regional Secondment Programme continues to reap long-lasting benefits to the RCU and the participating countries. Dr Sharie Michelle Aviso from the Philippines was seconded from January to April this year, and Dr Sangkot Sayuti Nasution from Indonesia join the RCU in the latter part this year to work on FMD preparedness project for free areas.

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:

• The SEAFMD Phase III is assured of funding until December 2007. The Australian government through AusAID remains as the biggest donor to SEAFMD Campaign, with the approval of USD 750,000 to support the programme from November 2006 to December 2007. In addition to the previous donation of NZ$ 300,000, the New Zealand government has given additional fund of NZ$ 350,000 last June 2006 to support SEAFMD RCU operations for this year and sero-surveillance project in the Red River Delta in Vietnam. The French government has donated Euro 39,000 to support operational expenses of Dr Stephane Forman and for sero-surveillance activities in the Upper and Lower Mekong zone.

• The transition of responsibility for the SEAFMD Campaign to ASEAN has progressed steadily. With signing of the AAHTF agreement by ASEAN Ministers, this document will provide the basis for member countries to process their contributions to the Fund. ASEAN Secretariat will start the
process of recruiting the Regional Coordinator under ASEAN once they have accumulated enough funds for this purpose, and they expect this to happen by middle of 2008.

- The RCU continue to collaborate with other animal health projects supporting FMD control in the region. It has jointly implemented with FAO/ADB control of TADs in GMS project in conducting trainings, surveillance and public awareness campaign in Cambodia, Lao PDR and Vietnam; and, with JICA project in FMD surveillance in Sagaing, Myanmar and meeting with traders in Thai-Malaysia and Thai-Myanmar border. A proposal from RCU and Murdoch University to get support from AusAID SPS Capacity Building project to implement a case study for the control of FMD in the MTM zone, through the establishment of an epidemiology network, was approved. The New Zealand government has given additional support to implement the FMD surveillance study in the Red River delta. A close collaboration with the AusAID-Vietnam CARD FMD project is smoothly ongoing. The RCU also assisted Philippines to get an extension of the AusAID/FAO FMD Eradication project. A revitalised National FMD Strategic Plan for Cambodia has been developed for submission to donors for support.

- The development of SEAFMD Roadmap 2020 is ongoing. Based on the outline drafted during the workshop of the national coordinators, a working paper is being formulated and will be circulated to members for their comments. The SEAFMD Roadmap 2020 will provide a long term strategy on how to effectively control FMD in the region. This will act as a living document that will be regularly refined to attune to the needs of the situation.

- National FMD Plans are continuously being refined with assistance from the RCU. A major review was done in Cambodia, Laos, Myanmar and Vietnam.

- A resource mobilization plan has been drafted to identify existing and future sources of support for the SEAFMD campaign ranging from national budgets, private sector and international donors. Vietnam has increased their FMD budget to USD33 Million to finance a 5-year FMD control programme.

Component 3: Public Awareness and Communications

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

Achievements:

- Public awareness to reach out the livestock traders was given emphasis in the recent cross-border meetings in Thai-Malaysia and Thai-Myanmar border. The aim is to educate the traders on the importance of controlling FMD in the region and how they will get long-term benefits from this programme.

- The SEAFMD Communication Plan has been revitalized with the revisions made by the new communication officer, Ms Nichola Hungerford. The updating of national communication plans is also underway with the assistance of Ms Hungerford.

- SEAFMD news continues to be published quarterly. The SEAFMD Web site has been maintained and further developments are anticipated.

- The RCU assisted Cambodia, Lao PDR and Vietnam in implementing public awareness campaigns in the Upper and Lower Mekong zones. The preparation of billboards, posters, brochures and meetings with key stakeholders were successfully implemented.

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:

- The RCU continues to monitor outbreaks of FMD in the region and regularly disseminate this information to member countries. One of the significant changes of FMD situation in 2006 is the widespread epizootic in Vietnam affecting 54 out of 64 provinces. It was caused mainly by FMD virus serotype O, but isolated cases of serotype A and Asia 1 were also reported. Serotype O also
caused several outbreaks in Cambodia affecting 11 provinces mostly those near Vietnam. Thailand was affected mainly with serotype A, but serotype O also caused sporadic outbreaks. After three years when serotype A outbreak was controlled in Bokeo province, Laos, it has resurfaced again this year in Vientiane. Myanmar reported outbreaks of serotype O and Asia 1. Malaysia had outbreaks of serotype O.

There is a significant improvement in eradicating the FMD serotype O Cathay topotype, the only FMD virus serotype found in the Philippines in the past 10 years. No outbreak has been reported since January this year, and active surveillance is going on to locate possible foci of infection. Indonesia remains an FMD-free country.

- This year marked a significant achievement in conducting sero-surveillance in the upper and lower Mekong zone. More than 4,000 samples were collected from Cambodia, Laos and Vietnam. A questionnaire was also used to gather epidemiological data and KAP (Key attitudes and practices) from farmers who own the animals for sampling. The samples were tested at National FMD laboratories and significant proportions were sent to RRL Pakchong for comparison of results.

- The RCU continue to strengthen the capacity of the SEAFMD members to conduct FMD surveillance and reporting. Several trainings on sero-surveillance, outbreak investigation and reporting for field officers were conducted. A regional workshop to improve FMD reporting was held last August during the national coordinators meeting.

- The SEAFMD website will be revised to link with OIE WAHIS/WAHID. On-line reporting will be developed using the WAHIS regional core interface. Arrangement to link with the ASEAN RAHIS is also underway.

- The RRL continue to serve the needs of the region. Several vesicular samples and sera were submitted by member countries. The capacity building for RRL continues with the support of the AADCP RRL project supported by AusAID. Several staff were sent to AAHL Geelong to study molecular techniques, bio-containment and quality assurance system. Several experts from AAHL also visited RRL this year to start developing the process for twinning and preparing the documents for submission to OIE.

- A meeting of the FMD Laboratory Network was held in Pakchong from 8-9 March 2007. The outcome of the meeting will be presented at the 13th Sub-Commission meeting.

**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 MTM Epidemiology Network (EpiNet) was formally launched in a planning workshop held in Murdoch University, Australia on 13-20 November 2006. The AusAID SPS Capacity Building project allocated funds to support the establishment of EpiNet and to conduct training activities in the MTM. The EpiNet is composed of 2 veterinarians from each country who will be trained on applied epidemiology, and will be supported to have a meeting twice a year to plan surveillance activities, analyse disease data and draft recommendations to improve zoning development to MTM TSC for consideration.

- The Upper Mekong Working Group (UMWG) meeting was held from 22 to 24 January 2007, in Oudomxay, Laos, to draft plans and recommendations to establish a FMD control zone and manage animal movement along the boundaries of Lao PDR, Thailand, Myanmar, Vietnam and PR China. Among the major outcomes of the meeting are the reports of sero-surveillance in Lao PDR and Vietnam, a better understanding on the recent animal movement flow, recommendations on major issues identified and action plan for the next 12 months.

- The 5th Meeting of the Lower Mekong Working Group on Zoning for FMD and Animal Movement Management (LMWG) was held in Sa Kaeo, Thailand, from 17 to 19 October 2006. Among the major outcomes of the fifth LMWG Meeting are the workshops on animal movement management, further definition of animal movement pattern, identification of stakeholders,
recommendations at improving animal movement control, design of sero-surveillance, coordination of sero-surveillance activities supported by existing projects (CARD, EU-SLPP, ADB-FAO and JICA), detailed action plan to further progress the establishment of a control zone in the Lower Mekong delta. One of the major accomplishments of the LMWG for this year is the signing of the MOU for animal health cooperation and animal movement management between Cambodia and Vietnam last April.

- The RCU is assisting member countries review and revise existing legislation on FMD control to better adapt with the needs in the field. The RCU will soon hire a consultant to assist member countries improve their legislation. Vietnam has come up with new FMD regulations to improve its strategy to control the recent FMD epidemic.

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 organisations in research and innovation through the national programmes

**Achievements:**

- The RCU continue to link with other institutions/universities and encourage them to conduct research on FMD in the region.

- With support from Australia Bio-security Cooperative Research Centre (CRC), three veterinary officers, from Indonesia, Cambodia and Myanmar, are undertaking postgraduate studies at Murdoch University to conduct researches on various aspects on FMD surveillance and epidemiology in their respective countries. The SEAFMD RCU is supporting the research studies of these PhD students.

- In collaboration with IAEA and AAHL, reagents for LP ELISA are being developed for distribution to member countries. Development of kits for 3ABC ELISA is also being considered with support from AAHL.

- The CARD-Vietnam project is monitoring efficacy of vaccinated animals in 15 pilot areas. The RCU will collaborate with this project to conduct a study on the role of carrier cattle and buffalo in the spread of FMD in Vietnam.

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:**

- A meeting of the Private Sector Consultative Committee (PSCC) was held in conjunction with the 12th Sub-Commission Meeting in Chiangmai, Thailand. The PS work plan for 2005-2006 was reviewed and a new work plan for 2006-2007 was approved. Dr Sumeth Sapchukun, Chair of the PSCC, presented the progress report of the committee. He announced the commitment of the some private companies to donate bio-safety containers to SEAFMD for sending of samples from member countries to RRL and WRL.

- Among the highlight of this year’s activity is the Cross-border meeting of Livestock Traders and other stakeholders organized jointly by SEAFMD and JICA ADC Project. The first meeting was held in Alo Setar, Malaysia, on 29 and 30 August, attended by more than 100 livestock traders and farmers along the border of Malaysia and Thailand. The meeting paved the way to the official opening of livestock trade between the two countries, which was suspended in 2003 due to an outbreak of FMD in imported cattle under quarantine in Perlis, Malaysia. The second meeting was held in Tachilek, Myanmar, on 29 and 30 November, attended by 50 livestock traders, farmers, and government officials along the border of northern Thailand and Myanmar. Issues pertaining to implementation of procedures for safe trade of livestock across the border were adequately discussed.
• Several in-country consultations with the private sector were held in Myanmar, Malaysia, Thailand and Vietnam. The role of livestock movement in FMD transmission was strongly emphasised in these meetings.

• In the Philippines, the private sector continuously support government’s programme to eradicate FMD in the country. Associations of Farmers, Livestock traders and slaughterhouse operators have signed a covenant with the government to actively support the last phase of FMD eradication.

• In Indonesia, an FMD-free country, organized cattle farmers through their federation work closely with the government to raise public awareness to prevent entry of FMD into their country. They have published brochures and posters, and also actively participate in government sponsored FMD awareness seminars.

**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 RCU has submitted the following reports as required by the OIE and AusAID:
  - The OIE requires monthly financial reports, annual reports to the Sub-Commission on FMD in Southeast Asia (March), the General Session in May. Ad hoc reporting is required for mission requests, mission reports and mission expenses.
  - AusAID requires an inception report and six-monthly and annual reports.
  - The OIE Sub-Commission noted a high level of implementation of the SEAFMD work plan for 2005-2006.

- The work plan for 2006/2007 was endorsed by the 12th OIE Sub-Commission meeting.

*Recommendations:

It is recommended that the 13th Meeting of the OIE Sub-Commission:

1. NOTE progress with the implementation of SEAFMD Campaign Workplan for 2006/07.

Dr Ronello Abila
Regional Coordinator
Southeast Asia Foot and Mouth Disease Campaign
## SEAFMD Workplan for 2006/07

| PROGRAMME DESCRIPTION | PLANNED ACTIVITIES | TARGETS  
(MARCH 2006 – FEBRUARY 2007) | OUTCOMES |
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<tr>
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<tbody>
<tr>
<td><strong>Component 1</strong></td>
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<tr>
<td><strong>INTERNATIONAL COORDINATION AND SUPPORT</strong></td>
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<tr>
<td><strong>Output 1.1</strong></td>
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<tr>
<td>Annual Sub-Commission (SubCom) meeting and regional workshops to identify issues and strengthen programmes</td>
<td>Organise annual SubCom meeting</td>
<td>Hold 12th meeting of the SubCom</td>
<td>Meeting held on 27 February to 3 March 2006 in Chiangmai, Thailand. Recommendations and report circulated. Cambodia has agreed to host meeting from 12-16 March 2007.</td>
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<td></td>
<td>Conduct at least 3 regional meetings or workshops</td>
<td>Write to host country seeking confirmation of their offer to host the 13th meeting of the SubCom. Agreement to host including location and dates. Workshops conducted and reports published</td>
<td>National Coordinators Meeting 21-23 August 2006. 5th Meeting of the Lower Mekong Working Group 17-19 October 2006. 6th Upper Mekong Working Group 22-24 January 2007.</td>
</tr>
<tr>
<td>PROGRAMME DESCRIPTION</td>
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<td><strong>Output 1.2</strong></td>
<td>Missions conducted and where possible technical inputs provided to national programmes</td>
<td>Number of missions conducted, scope of countries visited and details of progress on priority issues</td>
<td>At least 1 mission to each country conducted and these to include discussions with Ministers, DGs and other stakeholders on priority issues for SEAFMD.</td>
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<tr>
<td><strong>Output 1.3</strong></td>
<td>Development, endorsement, review and reporting of annual SEAFMD workplan</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>
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<td><strong>Output 1.4</strong></td>
<td>Review, harmonise and finalise national FMD plans by June 2005</td>
<td>Ongoing commitment from the 8 participating countries to align national programme outputs with regional plan of SEAFMD Phase III</td>
<td>Ongoing revision of National Plans.</td>
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<td>Harmonisation of the approach to national FMD control plans</td>
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<td><strong>Output 1.5</strong></td>
<td>Regional Co-ordinator to engage with Ministers and ASEAN during missions to member countries whenever possible</td>
<td>Meetings with Ministers and ASEAN Secretariat held whenever possible</td>
<td>Regional coordinator meets with Ministers and Senior Officials during country missions and participation in the SOM-AMAF and AMAF meetings.</td>
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<tr>
<td>Planning for transition to ASEAN management of the SEAFMD programme</td>
<td>Assist ASEAN to establish ASEAN Animal Health Trust Fund (AAHTF) and finalise schedule of contributions</td>
<td>Participated in the meetings of SOM-AMAF and AMAF to present the importance of setting up the AAHTF</td>
<td>AMAF signed the Agreement for the establishment AAHTF. Some member countries have started to give their contributions.</td>
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<td>Maintain secondment programme of technical staff from member countries</td>
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<td>Maintain communication with AVI, France, etc.</td>
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<td>Approach to SEAFMD observer countries to deploy experts.</td>
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<td><strong>Output 1.6</strong></td>
<td>SEAFMDC 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 organising workshops and implementation of sero-surveys and public awareness campaigns with ADB-FAO and JICA</td>
<td>Joint activities held</td>
</tr>
<tr>
<td>Continuing and improved linkages with other projects and organisations in animal health</td>
<td>Maintain existing and make new linkages with International Agencies including WRL Pirbright, AusAID, FAO, APHCA, JICA, ILRI, IAEA, ACIAR, New Zealand MAF, ADB, IAEA, WB, and other regional FMD programmes.</td>
<td>Maintaining linkages.</td>
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<td><strong>Output 1.7</strong></td>
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</table>
| RCU recognised as the peak co-ordination body for FMD in Southeast Asia | See Component 3 for public awareness  
Attend international meetings including OIE General Session, OIE Scientific Commission, FMD symposium | See Component 3  
To be carried out during missions in 2006 | Attended CDC Seminar on Emerging diseases (Atlanta, USA), IDRC Meeting on AI research (Beijing, China), APEC AI meeting (Danang, Vietnam), FAO/OIE seminar on AI in wildlife (Rome, Italy), ARAHIS Workshop (Singapore), FAO/ADB Control of TADs in Mekong Countries Project Steering Committee meeting (Kunming, China), OIE/FAO Japan Trust Fund Project steering Committee meeting (Bangkok, Thailand), OIE/CIRAD Epidemiology Training (Bangkok). Presented a paper at the 11th ISVEE Conference (Cairns, Australia), OIE Workshop on Regional Information system for AI and other TADs (Bangkok), EU Seminar on Biological Weapons (Bangkok), and Global FMD Technology Roadmap (Agra, India). |
| **Output 1.8**          |                    |                                     |          |
| Harmonised technical and scientific approaches to FMD control in the region | See 1.3, 2.3, 2.4, 5.1, 5.3  
Progress the development of the long-term strategic vision for FMD in Southeast Asia | Implement decisions of SubCom meeting and report to National Coordinators and ASWGL | Reported at National coordinators and ASWGL meetings |

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

| Output 2.1 | Provision of training in project management where appropriate | Conduct 1 annual meeting of national FMD coordinators and to include advanced training in project management.  
Maintain and update list of national coordinators and maintain list on the website. | Meeting planned for August 2005 and workshop on application of project management to be organised.  
List maintained and current. | National Coordinators’ Meeting held and a workshop of SEAFMD Roadmap 2020 was conducted. |
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<tr>
<td><strong>Output 2.2</strong></td>
<td>Review, harmonise and update existing plans for Phase III (2006-2008) and seek formal endorsement by governments.</td>
<td>Plans presented for consideration by March 2006</td>
<td>Review, harmonise and update existing plans for Phase III (2006-2008) and seek formal endorsement by governments.</td>
</tr>
<tr>
<td><strong>Output 2.3</strong></td>
<td>Regular review of national and regional Plans undertaken. Problems identified. Plans adjusted.</td>
<td>SEAFMD SubCom reviews progress at 12th Meeting of SubCom</td>
<td>Progress was reported during July 2005 meeting of National Coordinators and a schedule for completion proposed.</td>
</tr>
</tbody>
</table>
| **Output 2.4**         | Request funds to employ additional consultants as required to provide technical services  
- Progress SEAFMD secondment programmes  
  - Regional 3-month secondments  
  - Maintain international volunteer at RCU  
  - International secondment | Hire consultants to  
- assist in developing SEAFMD Roadmap 2020  
- advise on strategic policies  
- Maintain a series of regional secondees at the RCU during 2006.  
- Negotiation with AVI and DLD in early 2006.  
- Approaches to SEAFMD observer countries for international secondments at RCU, RRL, etc. | Consultants hired and submitted reports and recommendations  
Dr Sharie Aviso from Philippines (January–April 2006) and Dr Sangkot Nasution from Indonesia (December 2006 – February 2007)  
A new Australian volunteer, Ms Nichola Hugerford, started as Communications Officer in April 2006.  
French government appointed an expert on animal disease surveillance and deployed to OIE RCU from December 2005 to December 2007.  
Continuation of volunteer.  
International secondment at RCU |
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<tr>
<td>Output 2.5</td>
<td>Collaborate with donors and international organizations to find ways for synergy of activities.</td>
<td>RCU drafted proposal and submitted to donors.</td>
<td>Australia approved USD 750,000 to support SEAFMD until December 2007, including support to RRL and hiring of consultants.</td>
</tr>
<tr>
<td>Options for future funding mechanisms</td>
<td>Follow up ASEAN on the establishment of ASEAN Animal Health Trust Fund</td>
<td></td>
<td>New Zealand donated additional USD 200,000 to support SEAFMD RCU operations in 2006.</td>
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<td></td>
<td>Collaborate with OIE Tokyo, ADB-FAO, FAO-RAP, JICA, CARD-Aus AID, SPSCB AusAID, New Zealand and France to support FMD control activities.</td>
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<td>AMAF approved the quantum and timelines of contributions to the ASEAN Animal Health Trust Fund to support control of FMD and other diseases.</td>
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<td>OIE Tokyo continues to support meetings of the Upper and Lower Mekong Working Group.</td>
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</table>

**ADB-FAO Project to control TADs in Greater Mekong SubRegion will support FMD and CSF sero-surveillance in Upper and Lower Mekong.**

**FAO-RAP to support economic studies in Upper Mekong and MTM.**

**JICA supports FMD sero-surveillance in Sagaing, Myanmar, and training of laboratory diagnosticians and animal movement management.**

**CARD AusAID supports FMD sero-surveillance in 15 provinces in Vietnam.**

**SPSCB AusAID supported sero-surveillance in Tanintharyi, Myanmar. AusAID continues to support FMD eradication in the Philippines.**

**New Zealand supports sero-surveillance in Red River Delta, Vietnam.**

**France hired a disease surveillance expert for the RCU for 2 years and will support sero-surveillance in Laos and Vietnam.**
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<td><strong>Component 3:</strong> PUBLIC AWARENESS AND COMMUNICATIONS</td>
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</tr>
<tr>
<td><strong>Output 3.1</strong> Strategy promotes regional goals of SEAFMD and links to national strategies</td>
<td>Update Regional Communication Plan</td>
<td>New Communication Officer to update plan in consultation with National Coordinators</td>
<td>Communications plan implemented and reports provided.</td>
</tr>
<tr>
<td></td>
<td>Implementation of SEAFMD communication plan for 2006.</td>
<td>Communications plan implemented according to schedule and reported in March 2007.</td>
<td>Website current and in use.</td>
</tr>
<tr>
<td></td>
<td>Website maintained and developed</td>
<td>Website maintenance and annual enhancement to continue.</td>
<td>Newsletter published on schedule.</td>
</tr>
<tr>
<td></td>
<td>SEAFMD News published quarterly</td>
<td>4 editions published and distributed in 2006 (March, June, September, December)</td>
<td>CD of SEAFMD e-library distributed</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>Stakeholder list updated and maintained. National Coordinators to assist in update of database.</td>
</tr>
<tr>
<td></td>
<td>Stakeholder list completed and maintained.</td>
<td>Stakeholder list updated and maintained.</td>
<td>Stakeholder list current.</td>
</tr>
<tr>
<td><strong>Output 3.2</strong> Communications and public awareness (PA) activities</td>
<td>Member countries with RCU assistance where necessary to implement their communications and PA plans.</td>
<td>Assist member countries implement Communication and PA activities</td>
<td>Assisted implementation of Communications and PA in Cambodia, Laos and Vietnam.</td>
</tr>
<tr>
<td></td>
<td>Organised PA campaigns, workshops, meetings in the MTM, Upper and Lower Mekong zones.</td>
<td>Organise PA campaigns along the border areas</td>
<td>Co-organised workshops with livestock traders and other stakeholders in Alor Setar, Malaysia, and Tachileik, Myanmar</td>
</tr>
<tr>
<td><strong>Output 3.3</strong> National FMD plans that include communications strategy</td>
<td>Ensure that each national FMD plan includes a communication strategy and linked to SEAFMD Communication Strategy</td>
<td>Included in National plans and SEAFMD Communication Strategy</td>
<td>All National Plans contain communication strategy</td>
</tr>
<tr>
<td>PROGRAMME DESCRIPTION</td>
<td>PLANNED ACTIVITIES</td>
<td>TARGETS (MARCH 2006 – FEBRUARY 2007)</td>
<td>OUTCOMES</td>
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<tr>
<td><strong>Component 4:</strong> DISEASE SURVEILLANCE, DIAGNOSIS, REPORTING AND CONTROL</td>
<td></td>
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</tr>
<tr>
<td><strong>Output 4.1</strong> Ensuring the application of harmonised approaches to FMD surveillance, diagnosis and control</td>
<td>Harmonised technical approaches documented and incorporated into national plans</td>
<td>Harmonised approaches agreed for diagnosis and surveillance.</td>
<td>A workshop on FMD reporting and surveillance was held during the National Coordinators' Meeting, August 2006. Regional Workshop of FMD Diagnosticians was held in RRL, Pakchong, 8-9 March 2007. Surveillance design for the MTM, Upper and Lower Mekong have been finalised. Sero-surveillance was successfully implemented in Cambodia, Laos, Vietnam and Sagaing, Myanmar.</td>
</tr>
<tr>
<td><strong>Output 4.2</strong> Compilation and reporting of regional epidemiological information and analysis</td>
<td>Reporting system based on outbreaks maintained on the website.</td>
<td>Reporting system maintained and agreed enhancements from workshop implemented in association with OIE Paris and Tokyo and ASEAN Epidemiological analysis of SEAFMD database</td>
<td>Updated reports from member countries regularly uploaded to SEAFMD website. Updated analyses of SEAFMD database will be presented in the 13th SubCom.</td>
</tr>
<tr>
<td><strong>Output 4.3</strong> Sharing information about the evaluation of FMD control strategies</td>
<td>FMD control efforts across the region are optimised as a result of shared information Endorsement of control strategies at SubCom and commitment of members to implement control measures and share information.</td>
<td></td>
<td>Regular reporting of member countries</td>
</tr>
<tr>
<td><strong>Output 4.4</strong> Maintain and enhance diagnostic capability within the region</td>
<td>Monitor typing of field outbreaks and where necessary encourage national laboratories to maintain diagnostic services. Routine reporting of FMD serotypes circulating in the region. Encourage more submission of samples for laboratory confirmation.</td>
<td></td>
<td>FMD virus serotypes causing outbreaks were identified. Assisted members to send samples to RRL.</td>
</tr>
<tr>
<td>PROGRAMME DESCRIPTION</td>
<td>PLANNED ACTIVITIES</td>
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<td>OUTCOMES</td>
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<tr>
<td><strong>Output 4.5</strong></td>
<td>Establish regional laboratory in Pak Chong, Thailand</td>
<td>Assist Thailand where possible with development and promotion of the RRL</td>
<td>RRL maintain its services to SEAFMD members</td>
</tr>
<tr>
<td><strong>Output 4.6</strong></td>
<td>Facilitate submission of samples to RRL and WRL</td>
<td>Facilitate submission of samples to RRL and WRL</td>
<td>No. of samples submitted to RRL and WRL</td>
</tr>
</tbody>
</table>

**Component 5**

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

<table>
<thead>
<tr>
<th>Output 5.1</th>
<th>Appropriate legal frameworks for FMD control developed</th>
<th>Agreement by the ASEAN sectoral livestock group to recognise importance of harmonised policy on disease control</th>
<th>Identify essential points to be included in legislation for FMD control.</th>
<th>Completed and framework developed. Most countries have completed questionnaire. RCU to conduct gap analysis and distribute to members. Reported at National Coordinators’ Meetings.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Examine existing policies and legislation from member countries</td>
<td>Complete review of current legislation and implement agreed schedule for harmonisation of legislation by member countries.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output 5.2</td>
<td>Development of policies and procedures to ensure reduction of cross-border spread of disease, and where necessary develop appropriate harmonised quarantine measures</td>
<td>Provide support for the operations of UMWG, LMWG, MZWG and RRDFZ</td>
<td>Support for working groups provided</td>
<td>Meetings of UMWG (January 2007), LMWG (October 2006) were held.</td>
</tr>
<tr>
<td>PROGRAMME DESCRIPTION</td>
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<tr>
<td>Output 5.3</td>
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<tr>
<td>Progress MTM Campaign for FMD Freedom</td>
<td>Commitment of members to implement MTM Campaign</td>
<td>Progress on the implementation of MOU signed by CVOs</td>
<td>Members continue to progress in implementing the MOU</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Review and update project description and logical framework</td>
<td>Documents updated and distributed to members</td>
<td>Updated and distributed during MTM meetings</td>
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<tr>
<td></td>
<td>Maintain and update standard procedures for MTM Campaign</td>
<td>Documents to be updated after meetings of TSC</td>
<td>Special meeting of Thailand and Malaysia endorsed protocol to resume official trade of livestock between the two countries</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Develop epidemiological network to provide advice to the TSC</td>
<td>Network established and reporting to TSC</td>
<td>MTM EpiNet launched in a workshop held in Murdoch University from 14-18 November 2006</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Identify agencies to fund projects on epidemiology, risk assessment and economic evaluation for the MTM Campaign</td>
<td>Develop project proposal and seek support</td>
<td>Proposal for an MTM as a Case Study for SPS Capacity Building project of AusAID was approved. FAO developing a proposal for assessment of FMD control options using Multi-Criteria Analysis. FAO will also support animal identification and traceability study in the MTM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Encourage research on MTM by postgraduate students from Malaysia-Thailand-Myanmar</td>
<td>Post graduate research plans agreed</td>
<td>Post graduates from Myanmar and Malaysia working on FMD. Post graduate student from Thailand successfully finished his study on MTM Risk Analysis</td>
<td></td>
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<tr>
<td>PROGRAMME DESCRIPTION</td>
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</table>
| **Output 5.4**  
Held workshop with livestock traders and other key stakeholders in Malaysia-Thai border (Alor Setar, August 2006) and Myanmar-Thai border (Tachileik, November 2006) |

| **Component 6**  
RESEARCH AND TECHNOLOGY TRANSFER | | | |
| **Output 6.1**  
Identify research issues of importance to SEAFMD and encourage participation of relevant research organisations | Identify any new key research issues through the SubCom and canvass potential collaborators | Research issues identified | MTM research priority developed  
Zoning WGs developing projects for support |

| **Output 6.2**  
Collaborate with projects designed to extend new technology to the diagnosis and control of FMD in the region | Demonstrated involvement with international technology transfer programmes including participation in regional workshops or training programmes | Support provided | Collaboration with Australian Biosecurity CRC |
<table>
<thead>
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<tr>
<td><strong>Component 7</strong></td>
<td><strong>LIVESTOCK SECTOR DEVELOPMENT INCLUDING PRIVATE SECTOR INTEGRATION</strong></td>
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</tbody>
</table>
| **Output 7.1**         | **Involve various livestock sector projects in the member countries with assistance of national co-ordinator and enhance the impact of such projects on animal disease status and FMD in particular** | Participation of PSCC and private sector organisations or companies in private sector session at SubCom 10.  
PSCC to review progress with implementing Private Sector Plan each year | Private sector workshop held and recommendations for increased private sector involvement included in RCU workplan.  
Progress with PS plan reviewed by March 2007 | PSCC met at Sub-Com 12 and PS involvement increased. Papers completed.  
Endorsed by PSCC during SubCom 13 |
| **Output 7.2**         | **Encourage establishment of livestock sector organisations that represent stakeholder views** | Member countries to encourage and facilitate establishment of livestock sector organisations through regular contact with relevant private sector stakeholders | National plans identify that establishing livestock sector organisations is an important activity | National Coordinators to report at SubCom meeting |
| **Output 7.3**         | **Strengthen the involvement of existing livestock sector organisations in the SEAFMD campaign** | Member countries to encourage the involvement of existing livestock sector organisations in the SEAFMD Campaign through regular contact.  
Existing livestock sector organisations provide financial or technical support  
The RCU to develop the operational procedures for a joint research and development proposal by the private sector for collection, transportation and strain characterisation of isolates | Number of the existing livestock sector organisation involved in the SEAFMD Campaign.  
National plans have activity to identify the existing organisations and possibility to have them involved in the Campaign  
National coordinators to negotiate  
The proposal completed. | National Coordinators to report at SubCom meeting  
Letter sent to the Chair of the PSCC  
On-going negotiations |
<table>
<thead>
<tr>
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</thead>
</table>
| **Output 7.4**  
Strengthen animal health service delivery through integration of private sector | Involvement of animal health private sector in SEAFMD | Incorporation of specific targets in the national plans for the period 2001-2005 | Members to report |
| **Output 7.5**  
Increased Livestock Sector development | Member countries to encourage and facilitate development of the livestock sector including through support in the development of livestock enterprises in strategic areas and facilitation of trade by risk management based removal of unnecessary barriers. | National plans to include livestock sector development as an important activity for livestock sector integration. | Negotiations between private sectors and government of member countries to promote safe trade of livestock on-going |

**Component 8: MONITORING AND EVALUATION**

**Output 8.1**  
Establish procedures to monitor the performance of the RCU and the regional programme | SubCom 12 to endorse annual workplan subject to revision to include SubCom 12 decisions  
RCU to circulate revised work plan after SubCom 12 | Workplan endorsed  
Workplan circulated to SubCom members | Workplan endorsed and revised.  
Workplan circulated to members |
| **Output 8.2**  
Established agreements to enable alterations or additions to the plan where necessary | Mechanism for alteration of plan included in project proposal and endorsed by SEAFMD SubCom | Included in reports to AusAID | Completed. |
<table>
<thead>
<tr>
<th>PROGRAMME DESCRIPTION</th>
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</thead>
</table>
| **Output 8.3**        | Regular reports provided to OIE, donor agency and SubCom | 6-monthly and annual reports submitted to OIE, AusAID  
Annual reports to OIE Scientific Commission (November), OIE Regional Commission (May), SubCom on FMD in Southeast Asia (March), ASWGL (June).  
OIE mission requests, reports and expenses reports submitted.  
Other reports as required | Reports submitted on time in May and November.  
Annual reporting completed on time  
OIE documents submitted within 1 month of mission.  
Reports submitted on request. | 6-monthly and annual reports submitted on time to OIE, AusAID  
Reports to ASWGL and OIE Regional Commission submitted in May.  
Reports submitted. |
| **Output 8.4**        | Financial reporting according to OIE guidelines | Accurate financial reports submitted as required | Initial reports submitted on time. | Financial reports submitted |
## Draft SEAFMD Workplan for March 2007 to February 2008

<table>
<thead>
<tr>
<th>PROGRAMME DESCRIPTION</th>
<th>PLANNED ACTIVITIES</th>
<th>TARGETS (NOVEMBER 2006 – DECEMBER 2007)</th>
<th>OUTCOMES</th>
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<tbody>
<tr>
<td><strong>Component 1</strong></td>
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<tr>
<td><strong>INTERNATIONAL COORDINATION AND SUPPORT</strong></td>
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<tr>
<td><strong>Output 1.1</strong></td>
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</tr>
<tr>
<td>Annual Sub-Commission (SubCom) meeting and regional workshops to identify issues and strengthen programmes</td>
<td>13th Sub-Commission meeting</td>
<td>SubCom 13 to be held in March 2007 and report on website, published and distributed by Paris by June 2007.</td>
<td>Meeting held and report available.</td>
</tr>
<tr>
<td></td>
<td>Progress action on recommendations from SubCom 13. Checklist maintained and reviewed quarterly and actions completed.</td>
<td>Action list developed in March 2007 and reviewed regularly</td>
<td>Action list developed, reviewed and actions completed and reported in the next SubCom</td>
</tr>
<tr>
<td></td>
<td>Conduct National Coordinators Meeting</td>
<td>National Coordinators Meeting to be held in July/August and report published and distributed by October 2007.</td>
<td>Meeting held and draft report and recommendations produced. Report on website.</td>
</tr>
<tr>
<td></td>
<td>Conduct at least 1 regional meeting or workshop.</td>
<td>Meeting held and reports published.</td>
<td>Meeting held.</td>
</tr>
<tr>
<td></td>
<td>Provide support for, and fund where necessary, 1 meeting each for MTM Tristate Commission, UMWG, LMWG and MZWG.</td>
<td>Meetings held and reports published and on website within 2 months.</td>
<td>Meetings held and reports completed.</td>
</tr>
<tr>
<td></td>
<td>Regular Meeting of the SEAFMD Steering Committee</td>
<td>Steering Committee to meet at SubCom 13</td>
<td>Meeting held and report available.</td>
</tr>
</tbody>
</table>

Appendix IX

SEAFMD 13th Sub Commission Meeting, Siem Reap, Cambodia
<table>
<thead>
<tr>
<th>PROGRAMME DESCRIPTION</th>
<th>PLANNED ACTIVITIES</th>
<th>TARGETS (NOVEMBER 2006 – DECEMBER 2007)</th>
<th>OUTCOMES</th>
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</thead>
<tbody>
<tr>
<td><strong>Output 1.2</strong> Missions conducted and where possible technical inputs provided to national programmes</td>
<td>Number of missions conducted, scope of countries visited and details of progress on priority issues.</td>
<td>At least 1 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, programme to strengthen veterinary services</td>
<td>Missions carried out.</td>
</tr>
<tr>
<td><strong>Output 1.3</strong> Development, endorsement, review and reporting of annual SEAFMD workplan</td>
<td>Draft workplan for endorsement at the annual OIE SubCom and ASWGL meetings</td>
<td>Workplan submitted to OIE SubCom and ASWGL</td>
<td>Workplan endorsed</td>
</tr>
<tr>
<td><strong>Output 1.4</strong> Harmonisation of the approach to national FMD control plans</td>
<td>Review of national FMD plans to include actions for Phase III</td>
<td>Align national programme outputs with regional plan. Review SEAFMD National Plans in March 2007.</td>
<td>National SEAFMD Plans revised and endorsed</td>
</tr>
<tr>
<td><strong>Output 1.5</strong> Completion of transition to ASEAN management of the SEAFMDC in a shared responsibility with OIE and establishment of AAHTF completed</td>
<td>The OIE SubCom to encourage high-level support by member countries by correspondence and in-person meetings. Assist ASEAN to operationalise the AAHTF Progress report to ASWGL. Regional Co-ordinator to engage with Ministers and ASEAN during missions to member countries.</td>
<td>Meetings between OIE officials and Ministers to be held whenever possible. Meetings with ASEAN secretariat to discuss arrangements Report to be submitted to ASWGL. Meetings with Ministers and ASEAN Secretariat held whenever possible.</td>
<td>Meetings between OIE officials and Ministers held and letters sent to Ministers. Meetings with ASEAN Secretariat held. Paper submitted. Meetings held. Transition of management to ASEAN with funding from AAHTF is completed by December 2007.</td>
</tr>
<tr>
<td>PROGRAMME DESCRIPTION</td>
<td>PLANNED ACTIVITIES</td>
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<tr>
<td><strong>Output 1.6</strong></td>
<td>SEAFMD to collaborate with other animal health projects and encourage support for FMD control and ensure synergy on capacity building of veterinary services</td>
<td>Joint activities in organising workshops and implementation of sero-surveys and public awareness campaigns with ADB-FAO and JICA</td>
<td>Joint activities held</td>
</tr>
<tr>
<td>Continuing and improved linkages with other projects and organisations in animal health</td>
<td></td>
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<tr>
<td><strong>Output 1.7</strong></td>
<td>Improved cooperation with PR China for FMD control. Increased interaction with South Asia on areas of cooperation</td>
<td>Mission to China and continue to invite them in SEAFMD activities. Encourage communication link with India and Bangladesh</td>
<td>More interaction with PR China Communication link started</td>
</tr>
<tr>
<td>Strengthen cooperation and exchange with countries neighbouring SE Asia</td>
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<tr>
<td><strong>Output 1.8</strong></td>
<td>Attend international meetings including OIE General Session, APHCA, OIE Scientific Commission 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 Southeast Asia and work with other agencies to align their activities in support.</td>
<td>Mission reports. To be carried out during missions in 2007. Contact/e-mail with Advisory and Steering Committee. Conduct working group meetings in conjunction with other agencies and promote the long-term vision</td>
<td>Meetings attended Linkages maintained. Advisory and Steering Committee informed Widespread support for the strategic vision</td>
</tr>
<tr>
<td>RCU recognised as the peak co-ordination body for FMD in Southeast Asia</td>
<td></td>
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<tr>
<td><strong>Output 1.9</strong></td>
<td>See 1.3, 2.3, 2.4, 5.1, 5.3</td>
<td>Draft recommendations from SubCom and the regional meetings on technical and scientific approaches to FMD Control</td>
<td>Recommendations adopted and implemented by member countries</td>
</tr>
<tr>
<td>Harmonised technical and scientific approaches to FMD control in the region</td>
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<tr>
<td>Component 2:</td>
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<tr>
<td>PROGRAMME MANAGEMENT, RESOURCES AND FUNDING</td>
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<tr>
<td>Output 2.1</td>
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<tr>
<td>Develop SEAFMD Roadmap 2020 as a long-term strategic Framework for SEAFMD Campaign.</td>
<td>Hire a consultant to draft Roadmap 2020, circulate to Steering Committee and members of the SubCom for comments and endorsement</td>
<td>Roadmap 2020 drafted and finalised</td>
<td>Roadmap adopted by Steering Committee and SubCom</td>
</tr>
<tr>
<td>Output 2.2</td>
<td></td>
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</tr>
<tr>
<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 updated</td>
</tr>
<tr>
<td>Output 2.3</td>
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<tr>
<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 2007</td>
<td>Updated National FMD Plans updated</td>
</tr>
<tr>
<td>Output 2.4</td>
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<tr>
<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 SubCom reviews progress at SubCom 13</td>
<td>Progress reported to 2007 meeting</td>
</tr>
<tr>
<td>PROGRAMME DESCRIPTION</td>
<td>PLANNED ACTIVITIES</td>
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<tr>
<td><strong>Output 2.5</strong></td>
<td>Request funds to employ additional consultants as required to provide technical services</td>
<td>Hire consultants to • assist in developing SEAFMD Roadmap 2020 • 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</td>
<td>Consultants’ reports</td>
</tr>
<tr>
<td>Provide adequate support to RCU to enable it to carry out its functions</td>
<td>Progress SEAFMD secondment programmes  - Regional 3-month secondments.  - Renew international volunteer’s term  - International secondment.</td>
<td>Maintain a series of regional secondees at the RCU during 2007. Negotiation with AVI and DLD in early 2007. Approaches to SEAFMD observer countries for international secondments at RCU, RRL, etc.</td>
<td>Maintain secondees at the RCU for more than 50% of the time. Continuation of volunteer. International secondments at RCU</td>
</tr>
<tr>
<td><strong>Output 2.6</strong></td>
<td>Develop options for funding in 2008-2010</td>
<td>Finalise agreement with OIE, ASEAN member countries, and donor/s to fund SEAFMD campaign for the period of 2008-2010</td>
<td>Agreed funding arrangement</td>
</tr>
<tr>
<td>Options for future funding mechanisms</td>
<td></td>
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<tr>
<td><strong>Output 2.7</strong></td>
<td>Conduct training management of disease control programmes, including strategic planning and M &amp; E</td>
<td>One workshop conducted in August 2007</td>
<td>Training conducted</td>
</tr>
<tr>
<td>Develop capacity of national coordinators to manage FMD and other disease control programmes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Component 3: PUBLIC AWARENESS AND COMMUNICATIONS

**To develop a communication strategy that supports effective implementation of the FMD programme**

### Output 3.1

Strategy promotes regional goals of SEAFMD and links to national strategies

<table>
<thead>
<tr>
<th>PLANNED ACTIVITIES</th>
<th>TARGETS (NOVEMBER 2006 – DECEMBER 2007)</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update Regional Communication Plan</td>
<td>New Communication Officer to update plan in consultation with National Coordinators</td>
<td>Updated Regional Communication Plan</td>
</tr>
<tr>
<td>Implementation of SEAFMD communication plan for 2007.</td>
<td>Communications plan implemented according to schedule</td>
<td>Communications plan implemented and reports provided.</td>
</tr>
<tr>
<td>Strengthen network of communication focal points</td>
<td>Organise Regional Workshop in Strengthening Communication Plan</td>
<td>Workshop held and report distributed</td>
</tr>
<tr>
<td>Website maintained and developed</td>
<td>Website maintenance and annual enhancement to continue.</td>
<td>Website current and in use.</td>
</tr>
<tr>
<td>SEAFMD News published quarterly</td>
<td>4 editions published and distributed in 2007 (March, June, September, December)</td>
<td>Newsletter published on schedule</td>
</tr>
<tr>
<td>SEAFMD electronic library updated</td>
<td>Compilation of SEAFMD reports, technical papers and relevant documents into CD format</td>
<td>CD of SEAFMD e-library distributed</td>
</tr>
<tr>
<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 current.</td>
</tr>
<tr>
<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 published</td>
</tr>
<tr>
<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>Brochure printed by June 2007</td>
</tr>
<tr>
<td><strong>PROGRAMME DESCRIPTION</strong></td>
<td><strong>PLANNED ACTIVITIES</strong></td>
<td><strong>TARGETS (NOVEMBER 2006 – DECEMBER 2007)</strong></td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td><strong>Output 3.2</strong> &lt;br&gt;Communications and public awareness (PA) activities</td>
<td>Member countries with RCU assistance where necessary to implement their communications and PA plans. Organised PA campaigns, workshops, meetings in the MTM, Upper and Lower Mekong zones</td>
<td>Communication and PA activities to be maintained and reported at SubCom meetings. Organise at least 4 PA campaigns along the border areas</td>
</tr>
<tr>
<td><strong>Output 3.3</strong> &lt;br&gt;National FMD plans that include communications strategy</td>
<td>Ensure that each national FMD plan includes a communication strategy</td>
<td>Included in national plans and SEAFMD communication strategy</td>
</tr>
</tbody>
</table>

**Component 4:** <br>DISEASE SURVEILLANCE, DIAGNOSIS, REPORTING AND CONTROL

<p>| <strong>Output 4.1</strong> &lt;br&gt;Ensuring the application of harmonised approaches to FMD surveillance, diagnosis and control | Harmonised technical approaches documented and incorporated into national plans. Conduct training on disease outbreak investigation, surveillance and control | Harmonised approaches agreed for diagnosis during the Laboratory network meeting in March 2007 and surveillance and control procedures harmonised during the SubCom and National Coordinators’ meetings Conduct 5 trainings, giving priority to CMLV countries | Recommendations on harmonised approaches on surveillance, diagnosis and control endorsed and implemented. Trainings conducted |
| <strong>Output 4.2</strong> &lt;br&gt;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. Countries to nominate contact persons for epidemiological network and carry out meeting/workshop in association with National Coordinators Meeting in July/August 2006 | Reporting system is maintained Epidemiological network established and operational. |</p>
<table>
<thead>
<tr>
<th>PROGRAMME DESCRIPTION</th>
<th>PLANNED ACTIVITIES</th>
<th>TARGETS (NOVEMBER 2006 – DECEMBER 2007)</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Output 4.3</strong></td>
<td>FMD control efforts across the region are optimised as a result of shared information</td>
<td>Endorsement of control strategies at SubCom and commitment of members to implement control measures and record impact.</td>
<td>Information shared</td>
</tr>
<tr>
<td>Sharing information about the evaluation of FMD control strategies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Output 4.4</strong></td>
<td>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</td>
<td>Annual report presented in March 2007 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.</td>
<td>Information reported and interpreted. One workshop of Laboratory network held in March 2007. Kits and reagents distributed. QA system established.</td>
</tr>
<tr>
<td>Maintain and enhance diagnostic capability within the region</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Output 4.5</strong></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. Encourage and facilitate submission of field specimens from member countries (particularly from Cambodia, Laos, Myanmar and Vietnam) to the RRL</td>
<td>RRL/RCU to report on operational status at annual SubCom meeting in March 2007. Submit application to OIE for twinning of RRL Pakchong and AAHL Geelong. All member countries submit samples.</td>
<td>RRL operational to international standards. Application submitted to OIE. RRL fully operational and regional information on FMD status maximised.</td>
</tr>
<tr>
<td>Establishment of the Regional Reference Laboratory (RRL) in Pak Chong, Thailand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Output 4.6</strong></td>
<td>Facilitate submission of samples from the RRL where appropriate.</td>
<td>No. of samples submitted from neighbouring countries and tested by RRL</td>
<td>Regional information maximised and validated</td>
</tr>
<tr>
<td>Facilitate submission of FMD specimens to the Regional Reference Laboratory</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROGRAMME DESCRIPTION</td>
<td>PLANNED ACTIVITIES</td>
<td>TARGETS (NOVEMBER 2006 – DECEMBER 2007)</td>
<td>OUTCOMES</td>
</tr>
<tr>
<td>-----------------------</td>
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<tr>
<td><strong>Component 5</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>POLICY AND LEGISLATION TO SUPPORT DISEASE CONTROL AND ZONE ESTABLISHMENT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Output 5.1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appropriate legal frameworks for FMD control developed</td>
<td>Examine existing policies and legislation from member countries</td>
<td>Review existing policies and legislation and recommend provisions to improve</td>
<td>Framework developed</td>
</tr>
<tr>
<td><strong>Output 5.2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development of policies and procedures to ensure reduction of cross-border spread of disease, and where necessary develop appropriate harmonised quarantine measures</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 1 meeting per WG and technical and secretariat support for all WGs.</td>
<td>Working groups are active.</td>
</tr>
<tr>
<td><strong>Output 5.3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Progress MTM Campaign for FMD Freedom</td>
<td>Conduct meeting of the Tristate Commission 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, SubCom and ASWGL Regular reports to TSC</td>
<td>Meetings held in April 2007 and reports completed within 2 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 and May 2007 Reports submitted twice per year</td>
<td>Meeting held. MOU, project description, logical framework, min standards current. TSC receives the best technical and epidemiological advice. Post graduate research plans agreed Reports submitted Reports submitted</td>
</tr>
<tr>
<td>PROGRAMME DESCRIPTION</td>
<td>PLANNED ACTIVITIES</td>
<td>TARGETS (NOVEMBER 2006 – DECEMBER 2007)</td>
<td>OUTCOMES</td>
</tr>
<tr>
<td>-----------------------</td>
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</tr>
<tr>
<td><strong>Output 5.4</strong></td>
<td>Conduct meetings of the Working Group of the Upper and Lower Mekong Zones</td>
<td>Meetings held in January and October 2007</td>
<td>Meeting held</td>
</tr>
<tr>
<td>Progress with zoning in the Upper and Lower Mekong</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Output 5.5**        | Organise stakeholders meetings/workshop along strategic borders | Workshops of traders and other stakeholders in the following borders:  
- Laos–Thailand–Myanmar  
- Cambodia–Vietnam  
- Vietnam–China | Workshops held |
| Animal Movement Control | Collaborate with ACIAR and other agencies on animal movement studies | Participate meetings with ACIAR project animal movement | Meetings held |
| | Facilitate the drafting protocols to harmonized procedures for cross-border of animals | Harmonised protocol drafted | Draft protocol endorsed to member countries for consideration |

**Component 6**

**RESEARCH AND TECHNOLOGY TRANSFER**

| Output 6.1 | Identify research issues of importance to SEAFMD and encourage participation of relevant research organisations | Research issues identified.  
Update ongoing and report annually  
Assist member countries develop research proposals | Listing of research topics for possible funding by donors  
List updated  
Number of research proposals drafted |
| Identify any new key research issues through the SubCom and canvass potential collaborators.  
Maintain research register on the SEAFMD website | | |
<p>| | | |
| | | |
| <strong>Output 6.2</strong> | Demonstrated involvement with international technology transfer programmes including participation in regional workshops or training programmes | Participate in international meetings on identifying priority research areas | Meetings attended |
| Collaborate with projects designed to extend new technology to the diagnosis and control of FMD in the region | | | |</p>
<table>
<thead>
<tr>
<th>PROGRAMME DESCRIPTION</th>
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<th>TARGETS (NOVEMBER 2006 – DECEMBER 2007)</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Component 7</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LIVESTOCK SECTOR DEVELOPMENT INCLUDING PRIVATE SECTOR INTEGRATION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Output 7.1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involve various livestock sector projects in the member countries with assistance of national co-ordinator and enhance the impact of such projects on animal disease status and FMD in particular</td>
<td>Participation of PSCC and private sector organisations or companies in private sector session at SubCom 13.</td>
<td>Private sector session and meeting of the PSCC held in March 2007.</td>
<td>PS actively involved in SEAFMD.</td>
</tr>
<tr>
<td></td>
<td>Strengthen Private Sector Consultative Committee (PSCC)</td>
<td></td>
<td>Regional meeting held and report disseminated to member countries and other key stakeholders</td>
</tr>
<tr>
<td></td>
<td>Review membership of PSCC</td>
<td></td>
<td>New members identified</td>
</tr>
<tr>
<td></td>
<td>Review and Update the Private Sector Plan in association with the PSCC.</td>
<td></td>
<td>Revised PS Plan.</td>
</tr>
<tr>
<td><strong>Output 7.2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Encourage establishment of livestock sector organisations that represent stakeholder views</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>Livestock industries more organised.</td>
</tr>
<tr>
<td><strong>Output 7.3</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strengthen the involvement of existing livestock sector organisations in the SEAFMD campaign</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 active.</td>
</tr>
<tr>
<td></td>
<td>Existing livestock sector organisations provide financial or technical support.</td>
<td>National coordinators to negotiate.</td>
<td>Increased support.</td>
</tr>
<tr>
<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 2007.</td>
<td>More samples submitted to RRL and WRL.</td>
</tr>
</tbody>
</table>
### Programme Description

**Output 7.4**
Strengthen animal health service delivery through integration of the private sector

**Involvement of animal health private sector in SEAFMD.**

**Incorporation of specific targets in the national plans for the period 2008-2010.**

**Active participation of private sector**

### Component 8: Monitoring and Evaluation

**Output 8.1**
Establishe procedures to monitor the performance of the Regional Coordination Unit (RCU) and the regional programme

- SubCom 13 to endorse annual workplan subject to revision to include SubCom decisions.
- RCU to undertake Completion Report to provide to AusAID
- RCU to support AusAID Independent Completion Report (to be completed by independent consultant)

**Workplan endorsed and circulated by end of March 2007.**

**Completion Report to be completed by last quarter of 2007.**

**Independent Completion Report to be submitted by independent consultant to AusAID**

**Workplan endorsed and revised.**

**Completion Report submitted to AusAID**

**Independent Completion Report to be submitted by independent consultant to AusAID**

**Output 8.2**
Regular reports provided to OIE, donor agency and SubCom

- 6-monthly and annual reports submitted to OIE, AusAID.
- Annual reports to Scientific Commission, Regional Commission, SubCom on FMD in Southeast Asia, ASWGL.
- OIE mission requests, reports and expenses reports submitted.

**Reports submitted on time in April and November.**

**Annual reporting completed on time.**

**OIE documents submitted within 1 month of mission.**

**6-monthly report to OIE and AusAID submitted in April and November.**

**Reports submitted on time.**

**Documents submitted on time.**

**Output 8.3**
Financial reporting according to OIE guidelines

- Accurate financial reports submitted as required.

**Reports submitted.**
The Animal Health and Movement Management Improvement in Cambodia

Introduction

Agriculture in the Kingdom of Cambodia is playing an important role in the national economy; it contributes 42.7% of the total Gross Domestic Product (GDP), in which 56% from rubber plantation and other crops, 7% from Fisheries, 7% from Forestry, and 30% from Livestock.

Livestock production is one of the priorities in agricultural domain and it plays an important role in ensuring and elevating food security for the entire Cambodian people. Cambodian farmers raise cattle, buffaloes, pigs, and poultry for their draught power, meat, eggs and generating income.

At the present, cattle and buffaloes are threatening by parasitic and infectious diseases result many animals were died, sick and its productivity is decreased significantly. There are four important infectious diseases among cattle and buffaloes: haemorrhagic septicaemia, foot and mouth disease (FMD), blackleg and anthrax. FMD causes major problem to farmers and recognized as economic disease. The problem is being recognized as losses due to treatment of animals, low output of the working capacity of sick animals, impact on rice cultivation and animal trade.

Most of Cambodian farmers raise animals traditionally, without using modern technology. Although the extensive production system is not well developed and in small scale it plays a vital role in providing meat and eggs to local demands effectively. This raising system is under the Department of Animal Health and Production (DAHP) providing services to provincial and local level, where village animal health workers (VAHW) play an important role in providing veterinary services directly to farmers.

Animal statistics in Cambodia

<table>
<thead>
<tr>
<th>Year</th>
<th>Cattle</th>
<th>Buffalo</th>
<th>Pig</th>
<th>Poultry</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>2,992,640</td>
<td>693,631</td>
<td>1,933,930</td>
<td>15,249,201</td>
</tr>
<tr>
<td>2001</td>
<td>2,868,727</td>
<td>625,907</td>
<td>2,118,273</td>
<td>15,251,574</td>
</tr>
<tr>
<td>2002</td>
<td>2,924,457</td>
<td>625,912</td>
<td>2,704,435</td>
<td>16,677,864</td>
</tr>
<tr>
<td>2004</td>
<td>3,039,945</td>
<td>650,572</td>
<td>2,428,566</td>
<td>13,990,592</td>
</tr>
<tr>
<td>2005</td>
<td>3,184,146</td>
<td>676,646</td>
<td>2,688,612</td>
<td>15,085,547</td>
</tr>
<tr>
<td>2006</td>
<td>3,344,712</td>
<td>724,378</td>
<td>2,740,815</td>
<td>15,136,065</td>
</tr>
</tbody>
</table>

Trends of livestock in Cambodia
**Major infectious diseases in livestock**

The Ministry of Agriculture, Forestry and Fisheries (MAFF) recognizes that disease prevention is a strategic effort to improve animal production and safe trade of livestock and livestock products. MAFF enforces this effort through the function of its Department of Animal Health and Production (DAHP), which provides linkages with other departments in MAFF and other ministries and agencies concerning the administration of livestock health, production and processing at national and international levels. The major infectious diseases in livestock are classified as follows:

<table>
<thead>
<tr>
<th>Animal species</th>
<th>Major diseases</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle, buffalo and small ruminants</td>
<td>Haemorrhagic septicaemia</td>
<td>Epidemic</td>
</tr>
<tr>
<td></td>
<td>Blackleg</td>
<td>Endemic</td>
</tr>
<tr>
<td></td>
<td>Foot and mouth disease</td>
<td>Endemic</td>
</tr>
<tr>
<td></td>
<td>Anthrax</td>
<td>Sporadic</td>
</tr>
<tr>
<td>Pig</td>
<td>Swine fever</td>
<td>Epidemic</td>
</tr>
<tr>
<td></td>
<td>Swine erysipela</td>
<td>Endemic</td>
</tr>
<tr>
<td></td>
<td>Foot and mouth disease</td>
<td>Endemic</td>
</tr>
<tr>
<td></td>
<td>Salmonellosis</td>
<td>Endemic</td>
</tr>
<tr>
<td></td>
<td>Colibacillosis</td>
<td>Endemic</td>
</tr>
<tr>
<td>Poultry</td>
<td>Newcastle disease</td>
<td>Epidemic</td>
</tr>
<tr>
<td></td>
<td>Fowl cholera</td>
<td>Epidemic</td>
</tr>
<tr>
<td></td>
<td>Gumboro disease (IBD)</td>
<td>Endemic</td>
</tr>
<tr>
<td></td>
<td>Fowl pox</td>
<td>Endemic</td>
</tr>
<tr>
<td></td>
<td>Avian influenza</td>
<td>Sporadic</td>
</tr>
<tr>
<td></td>
<td>Infectious bronchitis</td>
<td>Sporadic</td>
</tr>
</tbody>
</table>

**Current haemorrhagic septicaemia disease situation**

A total of 16 outbreaks of haemorrhagic septicaemia (HS) were reported in 9 out of 24 provinces throughout Cambodia during the 12-month period from January to December 2006. Those provinces are: Prey Veng, Kampong Cham, Kampong Chhnang, Kandal, Kampong Thom, Siem Reap, Mondulkir and Preash Vihear. Three animal species were infected: cattle, buffaloes and pigs.

- 16 HS outbreaks in 9 provinces involved
  - 195 cattle
  - 132 buffaloes
  - 617 pigs
- Killed
  - 50 cattle
  - 36 buffaloes
  - 43 pigs
HS Distribution by month in 2006

Number of sick animals

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

HS outbreaks in Cambodia in 2006
Current foot and mouth disease situation

A total of 53 outbreaks of foot and mouth disease (FMD) were reported in 13 out of 24 provinces throughout Cambodia during the 12-month period from January to December 2006. Those provinces are: Krong Preah Sihanouk, Krong Keb, Prey Veng, Banteay Mean Chey, Battambang, Takeo, Kampot, Kampong Cham, Kampong Chhnang, Kandal, Kracheh, Kampong Thom and Kampong Speu. Three animal species were infected: cattle, buffaloes and pigs.

- 53 FMD outbreaks in 13 provinces involved
  - 11,409 cattle
  - 1,131 buffaloes
  - 266 pigs
- Killed
  - 222 cattle
  - 3 buffaloes
  - 18 pigs
- Virus type?

DAHP has a national strategy for the control of FMD spread:

- Vaccination
- Regulation/Legislation
- Veterinary measures
- Public awareness.

Vaccination campaign in provinces

29,000 doses of FMD vaccine including 10,000 doses receiving from APHCA/FAO/RAP were distributed to the following provinces by the Department of Animal Health and Production:

- B.M Chey  5,000 doses
- Battambang  5,000 doses
- Kg Cham  1,500 doses
- Kag Speu  1,500 doses
- Kg Thom  1,200 doses
- Kampot  1,500 doses
- Kandal  1,500 doses
- Kracheh  500 doses
- Prey Veng  3,000 doses
- Pursat  2,000 doses
- Ratanakiry  500 doses
- Siem Reap  1,000 doses
- K.P. Sihanouk  500 doses
- Svay Rien  1,500 doses
- Takeo  1,500 doses
- Krong Pailin  1,000 doses
- Cattle breeding station  300 doses
Control of Transboundary Animal Diseases (TADs) in the GMS Project

Project GCP/RAS/206/ASB has been designed to support improved TADs control in the Greater Mekong Sub-region (GMS) countries. These countries include Cambodia, Laos, Thailand, Vietnam and the Yunnan Province of PR China.

Referring to the letter of agreement, Trans-boundary Animal Disease Control has been implemented in Cambodia from 20 March 2006. A total of 69 villages randomly selected in 8 provinces for the KAP and Serological survey (Kompong Speu, Kampot, Kandal, Koh Kong, Phnom Penh, Prey Veng, Krong Preah Sihanouk and Takeo). These provinces represent the FMD and CSF Control Zone as identified by the Lower Mekong Working Group.

The objective of this study is to estimate the prevalence of FMD and CSF in FMD proposed zone (Lower Mekong FMD zone). 14 serum samples were collected from cattle and buffalo, and 7 serum samples from pigs from each village. The total of 974 sera samples from cattle and buffaloes; and 483 samples from swine.

Blood was collected from the jugular vein of all species and all information which related to samples was recorded. Information on animal husbandry practices were collected and transferred into excel spreadsheets.

Laboratory capacity

Actually, in National Animal Health and Production Investigation Center has ability to perform diagnostic tests as follows:

- LP ELISA for detection of antibodies level of FMD
- NPLA for detection of antibodies level of CSF

In the GMS Project, 974 sera samples were collected from cattle and buffaloes; and 483 samples from swine. These samples can't test in National Animal Health and Production Investigation Center (NAHPIC) because it has the error with ELISA Reader so that 800 sera of cattle and buffaloes were sent to FMD laboratory in Pak Chong, Thailand, for testing. Recently, NAHPIC received one set of ELISA machine from the GMS Project.
Disease prevention and animal movement management

Insufficient outputs of medicine and vaccination is the major limitation for DAHP in animal health intervention. With the current annual government budget, DAHP is able to provide service in a regular epidemic situation for cattle and buffaloes against HS approximately 50%, blackleg 30% and anthrax. In the context of herd immunity this figure of vaccination rate is low as a result of lack of vaccine supplies.

The control of FMD in particular is a specific task, and it is a challenge for Cambodia where overall infrastructure and capacity are limited. The joint effort and fruitful cooperation in animal disease control should translate into the base important for promoting legal animal trade and market opportunity to mutually benefit both Cambodian farmers and stakeholders. The effort should aim at improving income generation and living standard of household of would result in reducing the poverty following the Royal Government’s mandates, promoting safe trade of animal products, ensuring food safety for not only Cambodia’s interests but for our trade, partners in the region and the world.

There has been a massive illegal cattle and buffalo movement from Cambodia to Vietnam through unrecognized so-called farmer to farmer trade along the borders. This issue has been brought to the MAFF attentions by issuing the ordinance No. 157 dated 22 May 2002 for the measure to manage and control of illegal movement of animals and animal products, in addition to the context of Sub-decree No. 16 on Sanitary inspection of animals and animal products dated 13 March 2003.

Report on achievement of objectives of the SEAFMD Campaign

Component 1: Government policy and veterinary regulation/legislation

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 foregoing 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 following goals to:
- Improve animal health and production services
- Improve the rural income
- Improve quality and productivity of livestock
- Strengthen legislation and livestock trade

1.1. Policy and strategies

- Staff technical capacity building
- Establishing structure that reflects the its management responsibilities
- Support to privatization of the animal health and production services at village and industrial levels
- Developing adequate regulation and legislation of the livestock trade and recognition
- Improving the environmental and consumer protection measures as part of effort to export accreditation
- Developing meat processing and marketing system of animal products
- Providing the policy for equitable farm gate prices to encourage local and international investment
The following programmes will make suitable addition to the operational structure so that the objectives can be achieved by:

- Developing based technical capacity
- Developing infrastructure to fit the long term objective
- Establishing HRD programme based on Training Need Assessment
- Introducing additional technical capacities in various fields that are necessary to achieve the long term objectives of reducing the mortality and morbidity of livestock which will contribute to increase of animal production
- Enhancing research facilities
- Developing animal health and production information system
- Developing the capacity in collect, collate, monitor and analyze information on a provincial, national and international basis
- Undertaking the epidemiological investigation into animal diseases and productions constraints
- Developing a routine diagnostic capacity to serve the animal health
- Undertaking the baseline for residue analysis capability and capacity
- Registration and licensing of village animal health worker and veterinary inspectors
- Registration and licensing livestock traders and pharmaceutical products
- Establishing farmers field school
- Developing livestock integration demonstration
- Promoting animal breeding, nutrition, husbandry and management skills
- Encouraging the privatization of veterinary services and supplies
- Supporting the formation of appropriate training programmes for service providers and private sectors
- Supporting the formation of farmer group and associations

1.2. Disease prevention measure

DAHP recognizes that the effective disease prevention in livestock provides direct benefit to overall livestock development that domestically it contributes to diversifying the rural incomes. The disease prevention has been enforced through vaccination and control of animal movement under the Government's Sub-decree No. 16 on sanitary inspection of animals and animal products dated 13 March 2003. However, for the service delivery, DAHP recognizes the private service involvement in veterinary service for both treatment and disease prevention. This allows to be operated for collection under the village animal health system legitimated by the government’s Sub-decree No. 26 on the Establishment and Training of Village Animal Health Worker.

Component 2: National and International Co-operation and Planning

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 the support from AusAids, 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 3: Public Awareness and Education

3.1. FMD public awareness

In Working 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.

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: Capacity Building

At present, MAFF is heavily in favor of animal health, animal production and administration whilst all of these fields need immediate strengthening of management skills training, experience opportunity, planning and monitoring, all within the capacity building programme.

As the Royal Government of Cambodia has placed high priority on rehabilitation of the agricultural sector, development efforts have been aimed at:
- Ensuring the National Food Security status (meet minimum staple food requirements for all producers) and
- Increasing Rural Incomes (ensure a more equitable return to farmer’s efforts and risks)

To ensure this goal, livestock sub-sector focuses on the following capacity building programmes:
- Technical and management training and education
- Livestock research
- Targeted extension (technical message delivery)
- Animal Health Risk Management
- Provision of Producer Services
- Trade and Market Assurance Programmes
- Consumer Protection and Industry Regulation

Animal health risk management concept

It is the management of animal health issues in conjunction with the Animal Production Services 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. 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 5: Information and Communication

The Epidemiology Unit that is the core of the National Animal Health and Production Information System (NAHPIS) within NAHPIC that funded under IFAD/WB project is to be empowered to carry out filed studies and investigations as well as disease surveillance programme.

The Epidemiology Unit will direct communication links with the provincial offices and programme and through them to the district veterinary services sectors. A top-down system of control is essential for disease control as well as to create a system of prompt reporting of high quality data. Reporting channel is being developed under the APIP of DAHP structure that link the district to province and province to the central monitoring and evaluation unit, which is organised by the Epidemiology Unit.
NAHPIC through the Epidemiology Unit will be developed strong linkages with:

- The Village Animal Health Workers (VAHWs) as these have continuous grassroots contact with the livestock sub-sector and are, together with livestock owners and village headmen, the critically important first link in the surveillance chain. VAHW can also assist in collecting data disease outbreak investigations, and participate in studies and surveys
- NGOs and others that promote and nurture VAHW networks
- Abattoir owners, commercial livestock producers, and livestock producers or marketing as these will be useful sources of data

**Component 6: Technical Issues Concerning Animal Disease Control**

Beside important infectious diseases mentioned earlier, parasitic diseases are also responsible for poor productivities and gradual loss of livestock especially amongst the household animal production. *Fasciola*, strongyloidosis and coccidiosis have been high prevalence in family animal production as compared to the semi-industrial one.

**Disease surveillance, diagnosis, reporting and control: support service sector**

Under IFAD Loan 432-KH, it is allowed the following actions to be taken to date in term 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 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.

**Conclusion**

Amongst important and necessary tasks to do, the controlling of animal disease should be the regional effort, especially ensuring veterinary cooperation and the role of veterinary inspection for animal and animal products for livestock trade shall be further strengthened. The control of FMD in particular is a specific task, and it is a challenge for Cambodia where overall infrastructure and capacity are limited. The joint effort and fruitful cooperation in animal disease control should translate into the base importance for improving and promoting legal animal trade and market opportunity to mutually benefit with neighbouring countries’ farmers and stakeholders. The efforts should aim at improving income generation and living standard of household would result in reducing the poverty following the Royal Government’s mandates, promoting safe trade of animal products, ensuring food safety for not only Cambodia’s interests but for our trade partners in the region and the world.
Status of foot and mouth disease

In the year 2006, there were 87 outbreaks of foot and mouth disease (FMD) occurring in 10 states of Malaysia. These outbreaks occurred throughout the year except in the months of August and September. The average numbers of FMD outbreaks were 7.25 per month. The numbers of cases for the whole year were 1,901 cases.

There were two peaks of outbreaks. The first peak was from January to June and the second peak was from October to December. This was an unusual pattern of outbreaks than previous years where the peak of outbreaks is usually high during the festive season towards the end of the year.

Malaysia has outbreaks of highly pathogenic avian influenza (HPAI) in February 2006 and the utilization of resources was concentrated towards the control and eradication of HPAI from February to March. Continuous utilization of resources for surveillance to declare the country free of HPAI ended in May 2006.

This resulted in the lack of resources to implement FMD control activities and measures. There was a drop in the effectiveness to manage animal movement by traders illegally as well as incursions across the national border in the control zone resulting in increase of FMD outbreaks in 2006 as compared to 2005 (40 outbreaks).

Malacca being a small state with clustering of animal population closely had 25 outbreaks and the rest of the states south of control zone had 20 outbreaks. There were 42 outbreaks in the control zone.

A total of 69 specimens consisting of epithelial tissues and serum were diagnosed at the National FMD Laboratory, of which 54 (62%) specimens were diagnosed as serotype O and 7 (8%) as serotype A; 8 (9.2%) specimens of serum which were sent to the laboratory due to insufficient of epithelial tissues from animals were diagnosed positive to FMDV infection using FMDV 3ABC NSP ELISA. The FMDV serotype O was the predominant serotype followed by serotype A.

However, from April onwards, FMD control measures were implemented with the availability of resources. The measures implemented manage to control FMD outbreaks and in July only one outbreak was reported. No outbreaks were reported in the months of August and September.

From October to December there was an increase of outbreak due to the high demand of animals for slaughter during the festive season. These outbreaks were mostly in the control zone while there were a few outbreaks in the eradication zone. This was the second peak of outbreaks which normally occurs due to incursions at the border and animal movement within the country during festive season at the end of the year.

Report on achievement of objectives of the SEAFMD Campaign

Component 1: International Co-ordination 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.

- Attended the 12th Meeting of the OIE Sub-Commission for FMD in South East Asia, 27 February – 3 March 2006, Chiang Mai, Thailand.
- Attended the 9th Meeting of OIE SEAFMD National Coordinators, 21-23 August 2006, Bangkok, Thailand.
- Collaborated and participated the ASEAN Foot and Mouth Disease Laboratory Network to harmonise and standardise FMD diagnostic tests reagents and antigens in the member National FMD Laboratories.
- Attended MTM TSC Meeting in February 2006, Chaam, Thailand.
- Attended Special MTM Meeting on 20 July 2006, Bangkok, Thailand.
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.

- The National Plan to eradicate FMD 2006–2009 was approved by the government. A thorough study of the plan indicates that some of the components in the plan will need to be outsourced like vaccination logistics, national livestock identification system using RFID and animal disease control system. This is mainly due to the limited resources available in the DVS. Proposals for this outsourcing have been called for submission to DVS from the private sector and a new budget will be proposed to the government.

- A meeting of the National Committee on Control and Eradication of Animal Diseases was held from 31 July to 3 August 2006. Specific attention was given to control of FMD.

Component 3: Public Awareness and Communications

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

- Meetings, seminars and forums with stakeholders have been conducted. Pamphlets and leaflets during vaccination campaigns are distributed in the control zone and in eradication zone.

- Information and knowledge of FMD have also been published in newspapers to create awareness in the general public.

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.

Clinical surveillance detected FMD in 10 states of Malaysia. Specimens of epithelial tissues and serum were sent for diagnosis and serotyping to the National Foot and Mouth Disease Laboratory, Kota Bharu, Kelantan.

A total of 69 specimens of epithelial tissues and serum were received by the laboratory, of which 54 (62%) specimens were diagnosed as serotype O and 7 (8%) as serotype A using FMD antigen detection ELISA; 8 (9.2%) specimens of serum which were sent due to insufficient epithelial tissues from the animals were positive for FMDV infection using FMDV 3ABC Non-Structural Protein (NSP) ELISA. 18 (20.6%) outbreaks were diagnosed clinically because they were spill over from previous outbreak in the same area.

Serological surveillance was carried out on imported cattle from neighbouring countries. The FMDV NSP ELISA test resulted in 20-30 % of the animals was positive indicating these animals were exposed to FMDV infection.

Reports are promptly sent to the SEAFMD Regional Co-ordination Unit and OIE.

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

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

- Formulation of new import protocols for livestock from Thailand, Myanmar and Cambodia.

- Presentation of protocol for importation of livestock to DLD Thailand in special MTM Meeting, Bangkok, Thailand, 20 July 2006.

- Presentation and discussions of import protocols to traders of both Thailand and Malaysia was done during the workshop on Animal Movement Management at Malaysia–Thailand Border, Alor Setar, Kedah, Malaysia, 29-30 August 2006.

- The Animal Act 1953 revised to 2006 is in placed to implement disease control leading to zone establishment. Importation ban on import of life animals from FMD endemic countries was lifted and mitigation measures to reduce risk are in-cooperated in the import protocols. Risk assessment on importation of livestock and livestock products was done.
Component 6: Regional research and technology transfer

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

- The National Foot and Mouth Disease Laboratory is involved in the networking of all national FMD laboratories in SEA Countries. The laboratory supports and participates in the research activity project ‘Production of Foot and Mouth Disease Antigen and Antibody ELISA Reagent Kits’.

- Participates in the project to harmonize and standardize the laboratory test used for both diagnosis and serology of FMD virus in this SEA National Foot and Mouth Disease Laboratory.

- Malaysia has a student studying Masters Programme specializing in FMD at Murdock University, Australia.

Component 7: Livestock sector development including private sector integration

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

- A workshop on the Animal Movement Management at the Malaysia–Thailand Border (JICA) was held at Alor Setar, Kedah, Malaysia on 29-30 August 2006. Discussions were held on cross-border movement of animals, importation regulations and procedures in Malaysia, exportation and quarantine procedures and regulations, and risk analysis and management.

- Seminars on FMD and control as well as benefits of being FMD free were held with stakeholders.

Component 8: Monitoring and evaluation

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

- The National Committee on Control and Eradication of Animal Diseases monitors and evaluates the status-progress and development of FMD in the country. Necessary comments and recommendations for improvement are implemented.

- Disease situation and updates on activities to control and eradicate FMD are also submitted monthly to the RCU SEAFMD for the constant monitoring and evaluation.

National FMD Plan of Activities for 2007

1. Vaccination against FMD
   - Targeted mass vaccination in affected districts neighbouring the MTM Control Zone (whole district or sub-district).
   - Strategic ring vaccination in outbreak areas in eradication zone.
   - Mass vaccination in states in the control zone.

2. Risk management of importation of live animals from FMD endemic countries
   - Import to reduce the pressure of smuggling.
   - Ascertaining compliance to import protocols.
   - Mandatory testing of imported animals with NSP ELISA with negative results prior to export.

3. Animal movement management
   - Strengthening of animal movement control.
   - Revising existing regulations.
   - Mandatory laboratory testing with NSP ELISA prior to animal movement within the country.
   - Strengthening the capacity and capability of the National FMD Laboratory.
   - Implementing the recommendations as in the Malaysia–Thailand Border Meeting in 2006.
4. **Organisation of MTM Meeting in Kota Bharu, Kelantan, Malaysia, 23-27 April 2007**  
   - Thrust on safe movements of animals in the MTM Control Zone.

5. **Awareness campaign to stakeholders**

6. **Continuous surveillance of FMD status in imported animals**

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Appendix XII

COUNTRY REPORT
OF
MYANMAR

Introduction

According to the statistic of livestock population in Myanmar, cattle population is 2.1 million, buffalo is 2.7 million, pig population is 5.7 million and sheep and goat is 2.4 million. The most cattle population is in Sagaing Division, buffalo population is in Shan State and pig population is in Ayeyarwaddy and sheep and goat population is in Mandalay Division.

Current FMD situation

In 2006, a total of 44 outbreaks of FMD occurred in 31 townships of 8 States and Divisions. A total of 2,571 cattle and buffaloes and 44 pigs were infected by FMD virus type O. Incidences were highest in Rakhine State and Sagaing Division. There have been no FMD outbreaks in Tanintharyi Division of MTM area since 1999. According to the field investigation animal movement and common grazing pasture was the main source of FMD outbreaks in Myanmar.

Report on achievement of objectives of the SEAFMD Campaign

Component 1: International co-ordination and support

The Livestock Breeding and Veterinary Department (LBVD) is responsible for prevention, control and eradication of livestock diseases of economic and zoonotic importance. LBVD is committed to support the OIE SEAFMD in coordinating the Malaysia–Thailand–Myanmar (MTM) campaign programme for FMD control among ASEAN countries.

Regarding the project Thailand-Japan technical cooperation on Animal Disease Control in Thailand and neighbouring countries, JICA donated 14 items of equipment for FMD vaccine production and diagnosis in 2003-2005. Recently more 3 items of equipment received from the phase 1 project. OIE RCU donated some reagents from RRL Pakchong, Thailand and CEDI ELISA Kit for FMD diagnosis in 2007. Myanmar always participated in FMD control activities conducted by OIE RCU in SEA region. Myanmar hosted animal movement management workshop at Tarchilake township of Myanmar–Thailand border area by Thai-JICA ADC project in November 2006. The 4th Myanmar Zoning Working Group workshop was held at Mandalay by OIE RCU in December 2006.

Component 2: Programme Management Resources and Funding

Livestock Breeding and Veterinary Department recognized FMD as one of the most serious draft power loses disease in Myanmar. As a result, it is committed to support not only FMD control programme but also other related programme such as establishment of FMD free zone in MTM area. FMD laboratory is established under the supervision of LBVD, FMD laboratory responsible not only FMD vaccine production but also FMD diagnosis and epidemiological studies. FMD vaccine production promoted from 100,000 doses to 200,000 doses by the contribution of equipment from Thai-JICA ADC project.

Component 3: Public Awareness and Communication

Livestock Breeding and Veterinary Department conducted workshops and seminars on animal health and disease control for in-service personnel, farmers and livestock owners. LBVD issued timely notification of FMD through public media such as daily newspapers, radio and TV programme especially at the onset of monsoon. SPS CBP (AusAID) project donated for public awareness and sero-surveillance programme in 2005. LBVD continued the public awareness programme at MTM area in 2007. Group discussion, interviews and Dutaik meetings are held in Dawei district and Kawthaung district. FMD transmission containment plan was initiated in 2006 by LBVD and local authority of Ayeyarwaddy Division. Public awareness, early information and communication system, movement control and vaccination programmes are involved in this plan.
Component 4: Disease Surveillance, Diagnosis, Reporting and Control

During the year 2006, sero-surveillance was conducted by Animal Disease Control in Thailand and neighbouring countries, Thai-JICA project. Sero-surveillance team visited to 4 townships from Sagaing Division and collected 400 serum samples and tested in National FMD Laboratory. In 2007, sero-surveillance team visited the Dawei district and Kawthaung district of MTM area and collected 90 serum samples.

In Myanmar, a total of 44 FMD outbreaks occurred in 31 townships of 8 States and Divisions and 2,571 cattle and buffaloes and 44 pigs were affected. About 40 samples are received from field outbreaks. Only virus type ‘O’ was detected by ELISA in FMD Laboratory.

FMD control in Myanmar is not completely successful due to the following factors:
- Farmers are not aware of the impact of FMD disease
- Insufficient amount of FMD vaccine for control measures.
- Difficult to control the movement of animals both inland and border areas.
- Inefficient transportation facilities for departmental personnel.

Component 5: Policy, Legislation Standard to Support Disease Control and Zone Establishment

Control of FMD and other infectious disease has been implemented under the Animal Health and Development Law since 1993. In 1999, rules and regulations were issued to exercise the law. Myanmar is fully participating with the other neighboring countries and FMD control activities.

Five policy objectives are issued by the Ministry of Livestock and Fisheries:
1) to increase the livestock production for domestic consumption and share the surplus with other countries;
2) to undertake the conservation and effective utilisation of livestock resources;
3) to promote investments related livestock sector development;
4) to take harmonious efforts with livestock development and sustainability;
5) to uplift the socio-economic status of livestock communities.

Component 6: Regional Research and Technology Transfer

There are two FMD diagnostic laboratories in Myanmar. One laboratory is in Yangon and the other is in Mandalay at the middle part of Myanmar. LBVD also established a new FMD vaccine production in Myinmu township of Sagaing Division. 4 staff for FMD diagnosis and 2 staff for vaccine production were trained in Pakchong FMD center under the Thai-JICA project. Dr Kinichi Sakamoto from NIAH, Japan visited to Myanmar to supervise the FMD diagnosis in 2006. Myanmar attended to AADCP workshop on establishment of SEAFMD laboratory Network in 2005 and also attended to FAO/OIE workshop on strengthening FMD laboratory network in 2007.

Component 7: Livestock Sector Development Including Private Sector Integration

The Ministry of Livestock and Fisheries is mainly responsible for the national livestock sector development. Myanmar Livestock Federation (MLF) is a non-governmental organisation and established at various levels (township, district, state and division and central). Under the control of MLF, there are swine producer associations, dairy farm association, animal health product association, milk producer association and these activities include reporting the occurrence of FMD as well as sample submission to National FMD Laboratory.

Component 8: Monitoring and Evaluation

National FMD control plan has been initiated with zoning approach and the logical framework of OIE RCU SEAFMD control will be performance indicator in Myanmar. Monthly and quarterly reports to OIE RCU and country report to annual meeting of OIE Sub-Commission. The Research and Disease Control division of LBVD always monitors current status of contagious diseases and emergency preparedness for FMD and new emerging diseases. LBVD evaluation meetings held in every four months interval at head office with the heads of state and division veterinary officers.
EXECUTIVE SUMMARY

The status of FMD in the country specifically Luzon has improved remarkably, achieving a no disease situation for more than one year. The last reported outbreak occurred in an abattoir in Lucban, Quezon on 28 December 2005 affecting three heads of pig. Having such development, the National FMD Task Force took advantage of the Progressive Zoning Approach so that local counterparts would pour out support to maintain the clean status of their respective provinces. It is important that the local government units will show ownership of the campaign for it to be more effective and successful. True enough, such approach paved the way for further upgrading of not only two provinces but all regions in Luzon starting 2005. The so-called infected zones or control zones, namely Regions III, IV-A and Metro Manila (NCR), have been classified nationally as Protected Zones, while Regions CAR and two other provinces (Ilocos Norte and Aurora) had been included in the list of FMD-free zones without vaccination through the Department of Agriculture’s Administrative Orders.

The implementation of standardized shipping permit also contributed to this achievement as traders learned to comply with the system coupled with strengthened quarantine checkpoint facilities and competent personnel. The media practitioners are also picking up on this development together with avian influenza as the country is still free from the said disease.

Looking forward, the Philippines will be ready to apply for recognition of Luzon to OIE by year 2008 thus all stakeholders and policy makers are constantly met to keep the momentum of FMD eradication in the Philippines.

Report on achievement of objectives of the SEAFMD Campaign

Component 1: International Coordination and Support

National FMD Task Force’s request to extend the Project FMD Eradication in the Philippines has been granted by AusAID based on the Mid-Term Evaluation review conducted in April 2005. The extension, which will run for 24 months, shall include application to OIE for FMD-freedom in Luzon with vaccination.

Component 2: Programme Management, Resources and Funding

The Project is managed by the Bureau of Animal Industry (BAI) with supervision from Food and Agriculture Organization (FAO). The task force’s management is being directed by the Head and a Deputy Head in close coordination with different line agencies of the Department of Agriculture, which include the Livestock Development Council (LDC), National Meat Inspection Service (NMIS) and the Department of Agriculture Regional Field Units (DARFUs) and other government offices such as the Philippine National Police, public information offices and local government units and non-government organizations.

Activities on FMD are being conveyed through the Regional FMD Task Forces Coordinators who are also coordinators for Avian Influenza. Regular meeting with these counterparts are being held to ensure that activities are undertaken accordingly to the work plan as well as discuss issues and concerns on the programme implementation.

Aside from the fund provided for by the AusAID, other activities in the campaign are supported through the Department of Agriculture’s livestock fund allocated to the Bureau and to the 15 regions.

Component 3: Public Awareness and Communication

To sustain awareness of the stakeholders, the Task Force continues to conduct workshops with the local counterpart information officers. These local information officers basically facilitate information campaign through broadcast and print media with regards to both FMD and avian influenza programmes, as well as help in conceptualising and
disseminating information materials. The FMD Task Force regularly provides media advisory to media practitioners to facilitate press conferences.

Moreover, Super Pig mascot proved to be useful tool to sustain consumer awareness on advocacy to buy only healthy meat certified by the NMIS. The mascot has gone busy visiting public markets and gracing events such as festivals or feasts and other occasions celebrated by the local government offices.

**Component 4: Disease Surveillance, Diagnosis Reporting and Control**

Sero-surveillance is a routine activity conducted at the Regional level in coordination with respective provincial veterinary offices. In this regard, a total of 7,619 samples have been tested at the FMD Diagnostic Laboratory for CY 2006 for routine sero-surveillance while a total of 2,177 samples tested came from breeder farms applying for BAI Farm Accreditation.

The Compliance Monitoring Team of the National FMD Task Force has established contact with the municipal and provincial offices as well as with the Philippine National Police to conduct monitoring of livestock establishments. The team quickly responded to field reports describing FMD-like signs observed in hogs on April, August and December in 2006, and in November involving goats. Lesions observed were due to trauma for hogs while orf in goats.

Proper cleaning and disinfection of premises are regularly reminded to the farmers to prevent disease occurrence or infection. The Bureau continues to provide free disinfectants and FMD vaccine to backyard farmers (vaccination is conducted in Regions III, IV-A and Metro Manila only).

**Component 5: Policy, Legislation, and Standards to Support Disease Control and Zone Establishment**

Progressive zoning approach has been effective in strengthening the campaign against FMD at the local level. Local chief executives appreciated the strategy as their respective province is included in the BAI FMD Task Force’s recommendation to the Secretary of Agriculture to upgrade the provinces’ status accordingly.

In 2005, Regions CAR (Cordillera) and I (Ilocos Region) had been upgraded to FMD-free with vaccination while seven provinces in Regions III (Central Luzon) and IV-A (Southern Tagalog) had been classified as Protected Zone from Control Zone. Moreover in 2006, having maintained a clean slate on FMD, Region CAR with provinces of Aurora in Region III and Ilocos Norte of Region I have been further classified to FMD-free without vaccination while Regions III, IV-A and Metro Manila have been classified as protected zones. All these local declarations were made through the Department of Agriculture’s Administrative Orders. Further strengthening of such initiative is provided for by the local chief executives through passing their respective local ordinances.

The National FMD Task Force continues to conduct consultative meetings with the regions as well as with the provincial veterinarians for sustaining the activities on FMD eradication campaign. Crucial to this campaign are the strengthening of quarantine checkpoint facilities and the use of standardized shipping permit form, which was first launched in 2005. There has been a remarkable decrease on the use of falsified or tampered shipping permits as recovered in abattoirs since distribution of the forms emanate from the DA Regional Field Units then to Provincial Veterinary Offices.

**Component 6: Regional Research and Technology Transfer**

The FMD Diagnostic Laboratory’s supervisor is actively participating in research and collaborative works in the region. Among the workshops attended included the following:

- establishment of the ASEAN FMD Laboratory network held in Pakchong, Thailand;
- attendance to veterinary biologics training programme at the Institute for Cooperation in Animal Biologics (IICAB), Iowa State University, Ames, Iowa, United States of America;
- participation in the international conference on animal health through Thailand–Japan Technical Cooperation held in Bangkok, Thailand;
- attendance to 11th International Veterinary Biosafety Workshop held in Singapore.

She has also prepared a paper on the recent findings on the role of carrier animals on the spread of FMD.
All these are equally relevant to the campaign against FMD as well as in the strengthening of the FMD Diagnostic Laboratory’s capabilities.

**Component 7: Livestock Sector Development Including Private Sector Integration**

With this phase of the campaign, livestock sector involvement is much felt. Hog raisers association willingly provided support to continue operation of animal quarantine checkpoints to ensure that no infected animal would be transported to their areas. Traders also participated in the campaign as observed through increased number of licensed traders which was intensified in 2004 with 2,034 registered livestock handlers and carriers. However, registration slightly decreased in year 2005 by 14% as compared to year 2004 and 10% in year 2006 as compared to year 2005. Nevertheless, compliance of traders to disinfect their livestock carriers at the disinfection centers had improved.

To further protect the gains achieved for Luzon, the National FMD Task Force has made a proposal to the hog growers association with the National Hog Action Team and the DA’s Livestock Development Council on creating indemnification fund for use in time of disease incursion. Option to derive the fund would be from the Shipping Permit issued by the Provincial Veterinary Offices in every animal transported. This same matter has also been presented to the Provincial/City/Municipal Veterinary League of the Philippines (PCMVLP) to further support and facilitate creation of the indemnity fund.

**Component 8: Monitoring and Evaluation**

The project-eradication of FMD in the Philippines is well monitored by FAO and AusAID. It was during the evaluation activity conducted by the team composed of representatives from AusAID, FAO and the Philippines that extension was in deed necessary to finally eliminate the disease in the country. Likewise, the National FMD Task Force through the Bureau regularly furnishes the Department of Agriculture updates and accomplishments of the project. Through these reports the policy makers are kept abreast with the FMD Campaign thereby further pouring out support specifically on approving draft policies such as Administrative Orders and Memorandum Circulars for stakeholders’ compliance.

Regular consultative meetings are also held with stakeholders to gather their insight with regard to the current programme implementation. Such meetings are important so that activities on FMD campaign will be effectively discharged with cooperation from stakeholders.
Introduction

According to the statistics of Department of Livestock Development (DLD), Thailand’s livestock population in 2006 was approximately 0.5 million dairy cattle, 7.7 million beef cattle, 1.6 million buffaloes, 8.1 million pigs and 0.4 million sheep and goats.

Current FMD situation

A total 43 FMD outbreaks occurred in Thailand in 2006 (see details in Table 1). The outbreaks occurred in almost all regions except the eastern part of Thailand: 19 outbreaks in the northeastern part, 13 outbreaks in the northern part, 8 outbreaks in the central part and 3 outbreaks in the southern part of Thailand).

Table 1.– FMD in Thailand in 2006

<table>
<thead>
<tr>
<th>Type of animals</th>
<th>No. of susceptible animals</th>
<th>No. of cases</th>
<th>No. of deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bovine</td>
<td>47,569</td>
<td>1,990</td>
<td>7</td>
</tr>
<tr>
<td>Buffaloes</td>
<td>1,674</td>
<td>128</td>
<td>-</td>
</tr>
<tr>
<td>Swine</td>
<td>2,050</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>51,293</td>
<td>2,118</td>
<td>7</td>
</tr>
</tbody>
</table>

The strains of FMD virus diagnosed are shown in Table 2. Molecular epidemiology of FMDV in 2006 was studied: type O were defined as SEA topotype and Cathay topotype and type A was defined as Asia topotype.

Table 2.– FMD outbreaks in Thailand in 2006 by type of virus and region

<table>
<thead>
<tr>
<th>Type of virus</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (%)</td>
<td>32 (74.42%)</td>
</tr>
<tr>
<td>O (%)</td>
<td>1 (2.33%)</td>
</tr>
<tr>
<td>Not typed (%)</td>
<td>7 (16.28%)</td>
</tr>
<tr>
<td>Not sampled</td>
<td>3 (6.98%)</td>
</tr>
<tr>
<td></td>
<td>43 (100%)</td>
</tr>
</tbody>
</table>

Spread of outbreaks

According to the field investigation, animal movement was still a major factors associated with the occurrence of FMD (see details in Table 3). Animal movements were reported to be associated with 38 outbreaks (88.40%).

Table 3.– Factors associated with FMD outbreaks in Thailand in 2006

<table>
<thead>
<tr>
<th>Factor</th>
<th>Outbreaks</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Animal Movement</td>
<td>38</td>
<td>88.40</td>
</tr>
<tr>
<td>1.1. General movement</td>
<td>9</td>
<td>20.90</td>
</tr>
<tr>
<td>1.2. Illegal movement</td>
<td>6</td>
<td>14.00</td>
</tr>
<tr>
<td>1.3. Movement within province</td>
<td>3</td>
<td>7.00</td>
</tr>
<tr>
<td>1.4. Vehicle / Vendor</td>
<td>8</td>
<td>18.60</td>
</tr>
<tr>
<td>1.5. Livestock market</td>
<td>12</td>
<td>27.90</td>
</tr>
<tr>
<td>2. Grazing /Swill or feed</td>
<td>2</td>
<td>4.70</td>
</tr>
<tr>
<td>3. Unknown factors</td>
<td>3</td>
<td>7.00</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>100.00</td>
</tr>
</tbody>
</table>
Major epidemiological changes

The total number of FMD outbreaks in Thailand decreased from 92 in 2005 to 43 in 2006. In the southern part of the country the number of FMD outbreaks dropped to only 3. In 2006, the FMD virus type A was significantly predominant to type O.

New control measures

1. Farmers were encouraged to keep their own animal health and give vaccination to their own animal with under supervision of DLD staff. A 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 was 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.

Report on achievement of objectives of the SEAFMD Campaign

Component 1: International co-ordination 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 2006 were as follows:

JICA

The Japan-Thailand cooperation on animal disease control in Thailand and neighboring countries has been continued by strengthening on animal disease control and technology transfer to upgrade laboratory staffs including FMD. These activities enhanced capacity FMD laboratories and improvement of human resources. Thai quarantine officer was invited to Myanmar, Cambodia and Vietnam to give lecture on the topic of animal quarantine system in Thailand in late September-October 2006. This training course led the staff in these three countries who are working in quarantine field could share knowledge as well as experience in their own countries. Two Workshops on animal movement management were held in Alor Setar, Malaysia and Tachilek, Myanmar to discuss animal movement protocol along the border of Malaysia-Thailand and Myanmar-Thailand, respectively.

FAO

FAO-ADB Project: Control of Transboundary Animal diseases (TADs) in the Greater Mekong Sub-region (GCP/RAS/206/ASB) is funded by ADB. The project involves five Greater Mekong Sub-region countries such as Cambodia, Laos, Thailand, Vietnam and Yunnan province of the People’s Republic of China. The three most important TADs in the sub-region – FMD, classical swine fever and highly pathogenic avian influenza – have been a major constraint to livestock production, a significant barrier to trade in livestock and livestock products and a threat to food and human safety.

The 2nd Project Steering Committee Meeting was held in Kunming from 27 to 29 June 2005 to discuss with need assessment of each member countries. Followed by ADB consultation on Phase II needs of the project on the control of transboundary animal diseases in the Greater Mekong Subregion, Oudomxay, Laos, 25-26 January 2007.

As for Thailand, the DLD proposes to develop in bioinformatics and develop primer to produce reagents which would be advantage to National Institute of Animal Health and Regional Reference Laboratory for FMD (RRL). The DLD requests for new equipment such as sequencer, real-time PCR system, vacuum concentration centrifuge for RRL and also training course for staff in targeted area.
AADCP-RPS Project

AADCP-RPS Project on Establishment of an Asian Reference Laboratory for FMD control programme, this project get successful outcome and it will be terminated in April 2007.

Bilateral Cooperation

Thailand-Laos

The 5th Meeting of Joint Technical Committee on Livestock Development was held in Pattaya, Chonburi province, from 3 to 5 August 2005. 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. As a result of the meeting, a committee on animal movement from each side was set up to draft principle protocol for animal and animal products moved between both countries.

The DLD supported 5,000 doses of trivalent vaccine to Department of Livestock and Fisheries for control of FMD outbreak in Vientiane in November 2006.

Thailand- Cambodia

The 5th Bilateral meeting on cooperation on animal health development between Cambodia and Thailand was held during 15-17 February 2006 in Bangkok. Technical cooperation on FMD control was discussed and both sides agreed to review the import and export protocols and health certificates.

The DLD supported 10,000 FMD trivalent vaccine doses to the Department of Animal Health and Production through FAO/APHCA for the control of FMD outbreak in Cambodia in August 2006.

In addition, cooperation between Thailand and Cambodia was strengthened based on Cabinet’s resolution on 19 July 2005 which has approved to support Cambodia to prevent and control highly pathogenic avian influenza. The three-year project has been designed to assist in two main areas; materials and dispatch of Thai expert on sero-surveillance together with laboratory to Cambodia. Donation of animal health materials including protective goggle, respiratory mask, protective gown, boot, glove as well as disinfectant and veterinary laboratory materials supplied to National Animal Health and Production Investigation Center (NAPHIC) by Thai Government was arranged after the 5th Bilateral meeting. The second round of donation with more animal health and veterinary laboratory material is being prepared and expected to handover these materials in April 2007.

Component 2: Programme management, resources and funding

Overall fiscal budget in 2006 for FMD was allocated up to USD 4.9 million. Thailand has implemented National Livestock Identification and Registration System (NLIRS) by using ear tag and computerization system in some provinces in the southern region – such as Chumporn province–, the eastern region and the north-eastern region in 2006. The target of this programme is also done in Royal Project and beef cattle extension in million household project. 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, organisation, 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.

Broadcasting the knowledge to prevent FMD and vaccination campaign was conducted on radio, television and also in webpage. A manual was published and distributed to farmers to give basic knowledge on FMD vaccination, how to vaccine their own animal under supervision of DLD field staff.
Component 4: Diseases surveillance, diagnosis, reporting and control

In 2006, Thailand surveyed the prevalence for FMD by using non-structure protein (NSP) test and monitor antibody titer after vaccination by LP ELISA twice a year.

Diagnosis

Tissue specimens were received from member countries, Cambodia, Myanmar, Laos and Vietnam. The assays were conducted for confirmation of serotype identification then further investigation for strain characterization of vaccine matching and phylogenetic tree analysis of FMD virus outbreak in Thailand and neighbouring countries. This study will useful for supporting the selection of seed virus strain and molecular epidemiological information of FMD in the region. As well as the serum samples were received from Laos and Cambodia for testing the quality assurance of the LP ELISA and NSP assay.

A panel of FMD isolates from Thailand and SEAFMD countries were submitted to WRL, United Kingdom, in June 2006. A total of 21 samples from field outbreaks from Thailand (11 samples), Laos (5 samples), Vietnam (4 samples) and Myanmar (1 sample) were sent to WRL for diagnostic confirmation and nucleotide sequencing.

Reporting

After FMD outbreaks, initial report, investigated 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 6th Meeting of the Upper Mekong Working Group on FMD Zoning and Animal Movement Management was held in Oudomxay, Laos, from 22 to 24 January 2007. The meeting involved field trips to the borders between China and Laos. The last FMD outbreak in Nan province (Control Zone) was in 2001. There are many recommendations arising from the meeting such as developing a comprehensive strategic plan for Upper Mekong zoning with clear timelines, well-defined milestone, resource required; using strategic mass vaccination in control zone, etc. Thailand is recommended to host the next meeting in January 2008.

Establishment of Lower Mekong Commission for FMD Zoning and Animal Movement Management

The 5th Meeting of the Lower Mekong Working Group on FMD Zoning and Animal Movement Management was held in Sakaew, Thailand during 17-19 October 2006. 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 efforts have been done to approach FMD free zone in this region. The 7th Meeting of the Tristate Commission (TSC) on the Establishment of the MTM Peninsular Campaign for FMD Freedom was held in Chaam, Petchaburi, Thailand on 1-3 February 2006. The meeting noted the new policy of DLD, Thailand to implement compulsory livestock identification to enhance animal movement management, and encourage other member countries to implement similar policy particularly for those animals crossing the border. Two delegates from Thailand attended a workshop on the establishment of an epidemiology network for the MTM campaign for FMD freedom, from 13 to 20 November 2006 at Murdoch University. The roles of the epidemiological network were thoroughly discussed in order to give recommendation to the Tristate commission.
Component 6: Regional research and technology transfer

The Department of Livestock Development (DLD) has supported the research and collaboration with international organisation as follows:

Training of Regional Reference Laboratory staff (listed below) at the Australian Animal Health Laboratory (AAHL) and Department of Primary Industries and ANQAP, Australia, under the AADCP-RPS project:

- Dr Dilok Ounpomma: laboratory information management system (LIMS)
- Dr Panithan Thongtha: laboratory quality system and molecular diagnosis
- Dr Romphrike Udon: biosecurity laboratory practice and microbiological containment
- Mr Jaruay Yothakeaw: microbiological containment engineer maintenance
- Ms Rattanee Chanthadee: biosecurity laboratory practice and cell culture
- Dr Wilai Linchonsubongkoch: laboratory quality system, proficiency testing

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. 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 laboratory, especially the Regional Reference Laboratory. 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.

Component 8: Monitoring and evaluation

The 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.
COUNTRY REPORT
OF
VIETNAM

FMD situation in 2005
- In 2006, the number of FMD outbreaks increased in Vietnam with thousands of infected animals. The disease occurred throughout the country and reached its peak in May 2006 (see Figures 1, 2 and 3 at the end of the report).
- Tissue samples were taken for isolation of FMD virus in outbreaks. Results show that there were two FMD virus serotypes circulating in Vietnam in 2006 (type O throughout the country, type Asia1 in the northern provinces).
- The occurrence of FMD type Asia1 and type A (in 2005) poses a risk for the whole country.

FMD prevention and control
- All the forces were mobilised to carry out disease control activities (quarantine, destruction, vaccination, etc.). Slaughter policy was apply when there were few outbreaks and in areas where the disease was new and isolated.
- Proper FMD vaccines were chose and administered in the high-risk areas and around outbreaks (type O and Asia1 in the northern provinces).
- In 2006, a total of 11,393,277 doses of FMD vaccines were distributed to localities; of which, 2,050,663 doses of trivalent vaccine (O, A, Asia1), 243,110 doses of types O&A, 1,173,807 doses of type O&Asia1 and 7,925,697 doses of type O.
- Disease surveillance:
  ▪ Routine surveillance studies were conducted to determine virus strains, monitor vaccine efficacy;
  ▪ Improvement of laboratory technology and close linkages with international laboratories.
- Control of animal movement in main road and across international borders:
  ▪ Animal quarantine measures were enforced through the system of quarantine stations and check-points, both within the country and national borders;
  ▪ Fixed checkpoints were established at main roads. Temporary check-points were established whenever outbreaks occurred and removed if the outbreaks were over.
  ▪ Upgrading the border controls, especially the animal movement inspection in bordering provinces.
- Awareness.
- International cooperation.

Report on achievement of objectives of the SEAFMD Campaign

Component 1: International co-ordination and support
- Co-organising the 5th Meeting of the Upper Mekong Working Group on AMM and Zoning, Hanoi, 11-13 January 2006.
- DAH/OIE Workshop on FMD Control in Vietnam, 10 October 2006, Hanoi.
- International experts visited Vietnam to discuss with the minister of MARD, DAH leaders and local veterinary authorities on FMD control strategies (Dr Murray and Dr Abila in October 2006; Dr Abila, Ms Hungerford (SEAFMD) and Dr Morzaria (FAO-ADB) on 7 and 8 June 2006; Drs Chris Morrissy and Peter Durr (AAHL) from 10 to 22 July 2006).
- The Vietnam - Laos Bilateral Meeting on Animal Quarantine held in July 2006.
- Taking part in international projects on disease control and prevention (e.g. FAO-ADB, JICA, CARD).
Component 2: Programme Management, Resources and funding

- The National plan for FMD control and eradication in the period of 2006-2010 has been readjusted with the total amount of VND 724 billion (equivalent to USD 45 million).
- The DAH has developed the detailed action plan for FMD control in 2007 (VND 203 billion, equivalent to USD 12.5 million).

Component 3: Public Awareness and Communications

- Strengthening public awareness campaigns through the media.
- Handbooks and leaflets on FMD control and prevention have been distributed to farmers and animal health workers.
- Organising conferences for traders on animal movement management.
- Training and awareness activities according to the national plan for FMD control and eradication 2006-2010.

Component 4: Disease surveillance, diagnosis, reporting and control

- In 2006, 20,997 serum samples and 1,000 tissue samples have been tested in the National Centre for Veterinary Diagnosis and HCM Regional Veterinary Office:
  - The National Centre for Veterinary Diagnosis sent 21 tissue samples to RRL in Pakchong. In addition, 4,312 serum samples and 403 tissue samples have been tested in the NCVD (1,484 serum samples for the sero-survey in Son La, Lai Chau and Dien Bien provinces, FAO-ADB project).
  - The HCM Regional Centre has tested 16,685 serum samples and 597 tissue samples.
- FAO-ADB project on Control of Transboundary Animal Diseases (TADs) in the Greater Mekong Sub-region (GCP/RAS/206/ASB), which is funded by ADB, in collaboration with CARD project to carry out FMD and CSF surveillance in several provinces in the South.
- The reporting system from the commune level to district to Sub DAH to RDAH and to DAH was developed. DAH organised training courses for provincial veterinary staff on using of TADinfo Information System (Java/HTML version) to submit disease data online and to carry out simple data analyses.

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

- The regulation on FMD control and prevention has been revised and adjusted.
- Adequate compensation for the value of animal destroyed was provided to farmers.
- Many provinces have set up their own plans for FMD prevention and control in their areas to develop their own FMD free zones, such as Provinces in the Red River Delta and Mekong Delta.

Component 6: Regional research and technology transfer

- AusAID project (CARD 072/04VIE) aims to strengthen capability of FMD surveillance and control in order to increase national bio security.
- Veterinary staff have participated in training courses on FMD diagnostic techniques in China.
Component 7: Livestock sector development including private sector integration  

*Livestock population during the period 1995 – 2005*  
*(in millions)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Buffalo</th>
<th>Cattle</th>
<th>Pigs</th>
<th>Goats/Sheep</th>
<th>Poultry</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>2.962</td>
<td>3.639</td>
<td>16.306</td>
<td>0.550</td>
<td>142.1</td>
</tr>
<tr>
<td>1996</td>
<td>2.954</td>
<td>3.800</td>
<td>16.921</td>
<td>0.513</td>
<td>151.4</td>
</tr>
<tr>
<td>1997</td>
<td>2.943</td>
<td>3.905</td>
<td>17.636</td>
<td>0.515</td>
<td>160.6</td>
</tr>
<tr>
<td>1998</td>
<td>2.951</td>
<td>3.984</td>
<td>18.132</td>
<td>0.514</td>
<td>166.4</td>
</tr>
<tr>
<td>1999</td>
<td>2.900</td>
<td>4.100</td>
<td>18.800</td>
<td>0.470</td>
<td>179.3</td>
</tr>
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<td>2000</td>
<td>2.960</td>
<td>4.150</td>
<td>19.500</td>
<td>0.475</td>
<td>185.0</td>
</tr>
<tr>
<td>2001</td>
<td>2.950</td>
<td>4.200</td>
<td>21.000</td>
<td>0.480</td>
<td>220.0</td>
</tr>
<tr>
<td>2002</td>
<td>2.814</td>
<td>4.062</td>
<td>23.170</td>
<td>0.622</td>
<td>233.3</td>
</tr>
<tr>
<td>2003</td>
<td>2.835</td>
<td>4.395</td>
<td>24.885</td>
<td>0.780</td>
<td>254.0</td>
</tr>
<tr>
<td>2004</td>
<td>2.869</td>
<td>4.908</td>
<td>26.144</td>
<td>1.020</td>
<td>218.1</td>
</tr>
<tr>
<td>2005</td>
<td>2.920</td>
<td>5.540</td>
<td>27.730</td>
<td>1.310</td>
<td>219.9</td>
</tr>
</tbody>
</table>

- Livestock industry is attracting more investment from both the Government and private sectors.  
- Farmers can access to loan with preferential interest rates from many banks.  
- Number of commercial farms is increasing rapidly with more intensive scale of production.

Component 8: Monitoring and evaluation  
- The National FMD plan for FMD control and prevention for 2006-2010 was reviewed  
- In March 2007, the National Conference on Veterinary service will be held to discuss disease control strategies in 2006 and plan for 2007.

5 March 2007  
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.../ Figures
### Figure 1 – FMD situation in Vietnam in 2006

<table>
<thead>
<tr>
<th>Month</th>
<th>Provinces infected</th>
<th>Total of outbreaks</th>
<th>Species infected</th>
<th>Virus strain</th>
<th>No. of infected</th>
<th>No. of deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kon Tum</td>
<td>1</td>
<td>bov</td>
<td>-</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>buf</td>
<td></td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Long An</td>
<td>1</td>
<td>sui</td>
<td>O</td>
<td>121</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Tien Giang</td>
<td>1</td>
<td>sui</td>
<td>O</td>
<td>89</td>
<td>17</td>
</tr>
<tr>
<td></td>
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<td>sui</td>
<td>O</td>
<td>17</td>
<td>0</td>
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<tr>
<td></td>
<td>Can Tho</td>
<td>1</td>
<td>sui</td>
<td>O</td>
<td>16</td>
<td>0</td>
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<tr>
<td>February</td>
<td>Dong Thap</td>
<td>1</td>
<td>sui</td>
<td>O</td>
<td>38</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Can Tho</td>
<td>1</td>
<td>sui</td>
<td>O</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Bac Lieu</td>
<td>1</td>
<td>sui</td>
<td>O</td>
<td>25</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Dac Lac</td>
<td>1</td>
<td>bov</td>
<td>-</td>
<td>25</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Ninh Thuan</td>
<td>1</td>
<td>bov</td>
<td>-</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>March</td>
<td>Bac Lieu</td>
<td>1</td>
<td>sui</td>
<td>O</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Dac Lac</td>
<td>1</td>
<td>bov</td>
<td>-</td>
<td>37</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Ninh Thuan</td>
<td>1</td>
<td>bov</td>
<td>-</td>
<td>28</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Gia Lai</td>
<td>1</td>
<td>bov</td>
<td>-</td>
<td>53</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Kon Tum</td>
<td>1</td>
<td>bov</td>
<td>-</td>
<td>23</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Phu Yen</td>
<td>1</td>
<td>bov</td>
<td>O</td>
<td>73</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Lam Dong</td>
<td>1</td>
<td>bov</td>
<td>O</td>
<td>125</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>sui</td>
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<td>148</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Bac Kan</td>
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Figure 2. Number of infected communes by day
Figure 3.– Illustration map for FMD situation in Vietnam in 2006