

Endorsed by the SSOM-37th AMAF



**ASEAN STRATEGIC PLAN OF ACTION FOR
COOPERATION ON LIVESTOCK (2016-2020)**

LIST OF ACRONYMS AND ABBREVIATIONS

ACCAHZ	ASEAN Coordination Centre for Animal Health and Zoonosis
AMAF	ASEAN Ministers on Agriculture and Forestry
AMS	ASEAN Member States
ASWGL	ASEAN Sectoral Working Group on Livestock
CFS	Chronic Fatigue Syndrome
EAHMI	Environmental Animal Health Management Initiative
FAF	Food, Agriculture and Forestry
FMD	Food and Mouth Disease
GAHP	Good Animal Husbandry Practices
GIS	Geographic Information Systems
GMP	Good Manufacturing Practices
HACCP	Hazard Analysis Critical Control Point
HPAI	Highly Pathogenic Avian Influenza
MOU	Memorandum of Understanding
NTBs	Non Tariff Barriers
OIE	World Organization for Animal Health
SOM-AMAF	Senior Officials Meeting of the ASEAN Ministers on Agriculture and Forestry
SMART	Specific, Measurable, Attainable, Relevant, Trackable
SME	Small and Medium Enterprises
SP-FAF	Strategic Plan of ASEAN Cooperation in Food, Agriculture and Forestry
SPS	Sanitary and Phyto-sanitary Measures
TORs:	Term of References
UNICEF	United Nations Children's Fund
VICH	International Cooperation on Harmonization of Technical Requirements for Registration of Veterinary Medicinal Products

BACKGROUND

The Special SOM-34th AMAF, held on 13-14 August 2013 in Pakse, Lao PDR agreed on the need to develop a vision, objectives and goals of the ASEAN Cooperation in Food, Agriculture and Forestry sectors towards 2020 (FAF), based on the review of the current Framework and Strategic Plan.

Following the assignment from SOM-AMAF, the ASEAN Ad-Hoc Task Force on Development of Vision, Objectives and Goals for ASEAN Cooperation in Food, Agriculture and Forestry Towards 2025 (ATF-FAF) had prepared the Vision and Strategic Plan of Food, Agriculture and Forestry (SP-FAF) (2016-2025),

The Vision and SP-FAF 2016-2025 was endorsed by the 37th Meeting of AMAF on 10 September 2015 in Makati City, Philippines. The SP-FAF (2016-2025) is designed to guide ASEAN towards the completion of the Millennium Development Goals (MDGs) and the post-2015 Sustainable Development Goals (SDGs), and to achieve the related goals of the UN Zero Hunger Challenge.

The ASEAN Strategic Plan of Action for Cooperation on Livestock (2016-2020) was formulated based on the Vision and SP-FAF (2016-2025). The Strategic Plan of Action is living document and could be updated annually based on the needs of ASEAN Member States.

ASEAN COOPERATION ON LIVESTOCK

The livestock sector makes important contribution to national output, employment and food security in the ASEAN region though its relative importance varies across the AMS. Share of agriculture in national output is declining in the more advanced AMS while the share of livestock within agriculture is increasing. While intensive and larger scale production and processing are emerging in the more advanced states, smallholder livestock still dominates in the less developed AMS where they play key roles in poverty alleviation, food security and nutrition and gender equality.

It can be reasonably assumed that livestock will remain a key sector within agriculture in the ASEAN region because of its contribution to high value food and nutrition, the demand for which will continue to grow with economic growth and urbanization. Role of smallholder systems will also remain important in some countries. Therefore, ASEAN policies and strategies for the sector need to be designed taking into account the fact that each member country has different livestock commodity portfolio with different roles.

Under Cooperation in Food, Agriculture and Forestry in ASEAN, the ASEAN Sectoral Working Group on Livestock (ASWGL) was established to provide a mechanism to develop and implement the relevant activities in the livestock sector such as ASEAN Standards in Livestock for Vaccines and Good Animal Husbandry Practices.

LIVESTOCK SECTOR'S GOAL AND OBJECTIVES FOR 2016-2020

Taking into account the ASEAN Vision on Food, Agriculture and Forestry post-2015 and the progress made to date in implementing the ASEAN Economic Community Blueprint 2015 measures, the following goal and objectives are defined in the Strategic Plan of Action 2016-2020 for the livestock sector.

Goal: Sustainable livestock production and trade contribute to growth, poverty alleviation, food security and improved nutrition in the ASEAN region.

Objectives: Recognizing differences and gaps between AMS in livestock production systems, technologies and national capacities:

- Promote policies to facilitate investment and harmonization of production and processing standards in the livestock sector for expansion of trade.

- Implement disease control measures, establish food safety, health and hygiene standards in line with international standards to reduce disease and market risks, and increase consumer safety for expansion of trade.
- Promote cooperation in research, technology transfer and institution building, and introduce regulatory measures for reducing production risks and instability, and for sustainable productivity improvement and natural resource management including livestock impact on the environment and climate change.
- Promote greater smallholder participation in market for poverty alleviation, food security, nutrition and gender equality.

STRATEGIC PLAN OF ACTION FOR COOPERATION ON LIVESTOCK (2016-2020) STRATEGIC THRUSTS AND ACTIVITIES

Based on the objectives identified in the Vision and Strategic Plan of ASEAN Cooperation in Food, Agriculture and Forestry 2016-2025 and the major global and regional issues in the livestock sector the four (4) Strategic Thrusts for programme development are proposed:

Strategic Thrust 1: Enhance intra- and extra-ASEAN trade in livestock commodities

Strategic Thrust 2: Disease control and food safety to expand trade and protect human health

Strategic Thrust 3: Sustainable productivity improvement, natural resources management and livestock impact on the environment and climate change;

Strategic Thrust 4: Support smallholder livestock for poverty alleviation, food security, nutrition, and gender equality

Under each thrust, three types of activities are suggested, including: those initiated earlier but not yet completed; those planned earlier but not yet initiated or implemented; and new activities.

Strategic Thrust 1: Enhance intra- and extra-ASEAN trade in livestock commodities.

Output 1.1: Improved policy and regulatory environment to facilitate trade

Activity 1.1.1. Monitor and take steps for elimination of any remaining non-trade barriers to increase volume of trade in livestock commodities.

Activity 1.1.2. Advocate to ASEAN Economic Ministers and ASEAN Leaders to include livestock in priority commodity list of the AEC (individual AMS may promote specific livestock commodity(ies) depending on relative importance and comparative advantage).

Activity 1.1.3. Promote the harmonization of regulatory and institutional measures for quarantine, inspection and sanitary procedures for trade in live animals and livestock products.

Activity 1.1.4. Where applicable, advocate appropriate authorities to redefine SME to include small-scale livestock production and processing enterprises to facilitate their access to domestic and regional markets.

Output 1.2: Harmonized production and processing standards to promote trade

Activity 1.2.3. As planned earlier, develop Manual for GMP for production of:

- (a) Slaughterhouse and meat processing plant
- (b) Ice cream processing plant
- (c) Yoghurt processing plant
- (d) Egg processing plant
- (e) Milk processing plant

Activity 1.2.4. Update previously published GAHP manuals on commercial broiler and layer incorporating information on veterinary drug residues in food of livestock origin.

Activity 1.2.5. Conduct training on HACCP and risk assessment giving illustrations with specific diseases.

Activity 1.2.6. Conduct training on humane slaughter of animals.

Activity 1.2.7. Conduct combined regional training courses on halal food for Food Inspectors, Food Auditors and Laboratory Analysts.

Activity 1.2.8. Monitor adoption and practice of GAHP and GMP standards to reduce inter-country differences in compliance.

Strategic Thrust 2: Disease control and food safety to expand trade and protect human health

Output 2.1 Harmonized comprehensive integrated disease control measures

Activity 2.1.1. Operationalize the ACCAHZ as a regional body.

Activity 2.1.2. After reorganisation of the FAF sector governance structure, which is currently under discussion, review the TORs, governance and financing mechanisms of the existing networks and forums under ASWGL with a view to see whether there are overlaps/duplications of functions, whether there are issues/areas that are not adequately covered by existing bodies, whether and how some networks/bodies/forums may be consolidated for greater efficiency, and whether the governance structure and mechanism of various networks/bodies/forums may be standardized and synchronized with the new governance structure of FAF.

Activity 2.1.3. Increase capacity development in Veterinary Epidemiology and undertake relevant epidemiological works:

- (a) Conduct regional training courses on field epidemiology
- (b) Continue field epidemiology course-based Masters Programme offered in the Philippines.
- (c) Conduct training/workshop on Control and Eradication of priority animal diseases and zoonoses as well as and other economically important trans-boundary animal diseases” .
- (d) Publish report of the baseline survey conducted by Philippines on incidence of CSF in the ASEAN region conducted by the Philippines.
- (e) Take steps for mutual recognition of veterinary professionals.
- (f) Monitor Progress in implementation of the Project on Environmental Animal Health Management Initiative (EAHMI) to integrate EAHMI into the core Veterinary Service by the use of Geographic Information Systems (GIS) Technology developed by the Philippines.
- (g) Develop action plan, tools and funding mechanism for promoting One Health strategies at country and regional level.

Activity 2.1.4. Monitor progress in implementation of programmes and projects and undertake new projects for control and eradication of economically important trans-boundary animal diseases:

- (a) Follow OIE guidelines in implementation of compartmentalization of livestock production systems by AMS.
- (b) Participate in implementation of the Global Framework for the Progressive Control of Trans-boundary Animal Diseases.

- (c) Implement Southeast Asia–China FMD 2020 programme for control and eradication of FMD from the region.
- (d) Develop and implement plan for Expansion of Disease Free Zone in AMS for control and eradication of FMD.
- (e) Hold workshop on a harmonized methodology for economic assessment of FMD impact at the village and higher levels.
- (f) Participate in implementation of the ASEAN Roadmap for HPAI free region by 2020 including control of zoonosis.
- (g) Participate in implementation of the emergency pandemic threats programme (EPT-2), especially focused on H7N9 Virus.
- (h) Develop and implement a plan for elimination of Rabies as an animal and human health hazard from the region by 2020

Activity 2.1.5. Management of exotic and emerging disease including emergency preparedness and response.

Output 2.2. Harmonized food safety standards for livestock products to protect human health and expand trade

Activity 2.2.1. Taking common ASEAN approach, monitor harmonization of the procedures in implementation of the SPS measures established by the OIE across AMS as agreed by ASWGL.

Activity 12.2.12. Complete pending activities for development of Manual for GAHP for production of:

- (a) Duck for slaughter
- (b) Sheep and goat for breeding
- (c) Sheep and goat for slaughter
- (d) Pig for slaughter
- (e) Pig for breeding

Activity 1.2.2. As planned earlier, develop Manual for GAHP for production of:

- (a) Duck egg
- (b) Dairy cattle
- (c) Porcine semen and embryo
- (d) Bovine (including buffalo) semen and embryo
- (e) Caprine semen and embryo

Activity 2.2.2. Synergize ASEAN programmes on health and food safety with programmes of international organisations and bilateral partner country programmes in the region with a focus on livestock commodities.

Activity 2.2.3. Develop ASEAN biosecurity manual for commercial swine and ruminant production.

Activity 2.2.4. Establish guideline to control on the use of anti-microbials drugs in livestock.

Activity 2.2.5. Conduct workshop/training on Animal Identification and Traceability Systems giving illustration with respect to a specific type of animal to improve food safety standards and traceability.

Activity 2.2.6. Monitor progress in implementation of the ASEAN-China MOU on SPS collaboration to improve food safety, and animal inspection and quarantine procedures.

Activity 2.2.7. Promote production of safe and healthy livestock products by producers and processors at all levels following GAHP, GMP and HACCP guidelines.

Activity 2.2.8. Share/exchange information and expertise with other agencies to improve the quality of surveillance and the effectiveness of responses to food-borne diseases and food poisoning outbreaks of livestock origin.

Activity 2.2.9. Survey on the competency of existing network of food laboratories include ASEAN food reference laboratories in ASEAN in terms of facilities and personnel to support food safety policies and regulations with a focus on livestock/ livestock products.

Output 2.3. Harmonized vet laboratory and vet product quality standards to promote collaboration among labs, and expand trade in livestock and veterinary products

Activity 2.3.1. Implement Regional Strategic Framework for Vet Laboratory Capacity Building and Networking in the ASEAN.

Activity 2.3.2. Conduct training on Harmonisation of Technical Requirements for Registration of Veterinary Medicinal Products (VICH)

Activity 2.3.3. Undertake training for skill development of vet laboratory staff.

Output 2.4. Easily accessible standard information on animal health for quick planning and decision making by various stakeholders

Activity 2.4.1. Improve the operation of the ASEAN Animal Health Cooperation website <http://asean-animalhealth.org/> with increased data content and regular update.

Activity 2.4.2. Make an inventory including profile and mailing list of Veterinary Epidemiologists and other animal health professionals at least with a Master's degree and upload on the website.

Activity 2.4.3. Make an inventory including profile of ASEAN accredited animal vaccine testing laboratories and upload on the website.

Activity 2.4.4. Develop and update disease incidence maps using epidemiological survey data.

Activity 2.4.5 Utilization of regional information sharing platform such as ARAHIS for decision making

Output 2.5 Coordinated effort to promote prudent antimicrobial usage monitor and detect antimicrobial resistance infections and reduce its spread in livestock.

Strategic Thrust 3: Sustainable productivity improvement, natural resources management including livestock impact on the environment and climate change

Output 3.1. More productive and globally competitive livestock sector

Activity 3.1.1. Promote multi-country collaborative research in productivity improvement and policy analysis to benefit from sharing knowledge and experiences, and economies of scale in research.

Activity 3.1.2. Undertake research and field innovation projects on increasing feed and fodder supply, enhancing utilization efficiency of locally available feed resources, and nutrition-genetics interaction for better management of both feed and animal genetic resources.

Activity 3.1.3. In order to address problems of water footprint in intensive production systems, undertake research on water use efficiency under alternative feed-water management regimes.

Activity 3.1.4. Conduct survey to identify successful technology, industry and institutional models developed in AMS, and facilitate their transfer and adaptation through joint ventures in the private sector as well as through public-private partnerships.

Activity 3.1.5. Implement Training Course on Buffalo Production Using Reproductive Biotechnology with ASEAN-India Joint Cooperation Fund.

Output 3.2. Resource conserving and environment friendly livestock development

Activity 3.2.1. Develop SMART indicators to monitor water pollution, land degradation due to nutrient loading and greenhouse gas emission from increased intensification and industrialisation of livestock production and processing keeping in mind that there are different species of livestock, and types and scales of establishments.

Activity 3.2.2. Undertake advocacy with extension services for diffusion of environmentally sound farming and food processing including improved manure management technologies.

Activity 3.2.3. Conduct survey on indigenous animal and microorganism genetic resources and take steps for their conservation, improvement and utilization

Activity 3.2.4. Develop emergency response capacity to deal with animal welfare, feed stock, animal reproductive and disease control measures during and/or after natural disasters .

Strategic Thrust 4: Support smallholder livestock for poverty alleviation, improved nutrition, food security and gender equality

Output 4.1. Livestock serve as an important pathway for poverty alleviation, improved nutrition and gender equality

Activity 4.1.1. Make policy advocacy for low interest livestock credit accessible to the poor, especially women, through micro-credit, SME and other programmes designed for poverty alleviation.

Activity 4.1.2. Document success stories in ASEAN region to identify institutions like farmer groups, cooperatives, contract farming that successfully improved small-scale producers' access to quality inputs and high value markets for outputs, and disseminate it for adoption by others.

Activity 4.1.3. Make policy advocacy for programmes/projects to encourage larger scale enterprises to perform a mentoring role for smallholders to foster adoption of innovations and participation in high value markets.

Activity 4.1.4. Make advocacy for giving priority in public sector researches, programmes, projects and technology diffusion for productivity improvement of smallholder livestock producers.

Activity 4.1.5. Encourage school feeding programmes based on milk and/or eggs linked to local livestock operations to address problems of under-malnutrition among the poor.

More details on deliverables, time lines for delivery and implementation responsibilities for each proposed activity are shown in Annex 1.

IMPLEMENTATION

ASEAN Ministers of Agriculture and Forestry (AMAF) and Senior Officers' Meeting of AMAF (SOM-AMAF) are the highest policy and decision-making bodies for implementation of agriculture and forestry related activities under the AEC. For the livestock sector, the ASEAN Sectoral Working Group on Livestock (ASWGL), supported by several technical bodies such as the ASEAN National Focal Point on Veterinary Products and the ASEAN Task Force on Highly Pathogenic Avian Influenza (HPAI) will implement the relevant activities under ASEAN Cooperation on Livestock. In the activities proposed above, specific actions have been listed to review the terms of reference, governance structure and functioning mechanism and financing mechanism of various networks and forums under ASWGL to see where and how the existing bodies may be reorganized for improving efficiency.

Priority activities may be funded by AMS and/or by donor resources or through bilateral collaboration. However, when donor fund or bilateral collaboration is sought, the guiding principle should be to give high priority to activities already listed or added later rather than get involved in adhoc disjointed projects. Collaboration with dialogue partners and international agencies should be to maximize regional and international public goods.

REVIEW AND MONITORING

Monitoring and evaluation should be based on the deliverables developed. A general midterm independent external review should be conducted in 2018 and a final review should be undertaken in 2020.

ANNEX 1: DETAILED SPA - LIVESTOCK SECTOR, 2016-20

Strategic Thrust/ Output	Activities/Sub-Activities	Deliverables	Timeline	Implementation responsibility (Lead, others including partners)
Strategic Thrust 1: Enhance intra- and extra ASEAN trade in livestock commodities				
Output 1.1: Improved policy and regulatory environment to facilitate trade				
	Activity 1.1.1 Monitor and take steps for elimination of any remaining non-tariff barriers to increase volume of trade in livestock commodities.	Regularly publish new and updated regulations and statements on tariff and NTBs for easy access by business.	2016-2020	ASWGL Other to be identified
	Activity 1.1.2 Advocate to ASEAN Economic Ministers and ASEAN Leaders to include livestock in priority commodity list of the AEC (individual AMS may promote specific livestock commodity(ies) depending on relative importance and comparative advantage).	Advocacy document showing justification for inclusion of livestock in priority commodity list.	2016-2017	ASWGL Other to be identified
	Activity 1.1.3 Promote the harmonization of regulatory and institutional measures for quarantine, inspection and sanitary procedures for trade in live animals and livestock products.	Publication of harmonized procedures	2016-2018	ASWGL ARISE, NRT Other to be identified
	Activity 1.1.4 Where applicable, advocate appropriate authorities to redefine SME to include small-scale	Advocacy document with justification to redefine SMEs to include small-scale livestock	2016-2017	ASWGL Other to be identified

	livestock production and processing enterprises to facilitate their access to domestic and regional markets.	production and processing enterprises Regulation by SME authorities redefining SME as above	2016-2017	
Output 1.2: Harmonized production and processing standards to promote trade				ASWGL Other to be identified
	Activity 1.2.1 Complete pending activities for development of Manual for GAHP for production of : (a) Duck for slaughter (b) Sheep and goat for breeding (c) Sheep and goat for slaughter (d) Pig for slaughter (e) Pig for breeding	Published manuals	2016-2020	ASWGL Ad-hoc Expert taskforce on Development of the GAHP should be established. Other to be identified
	Activity 1.2.2 As planned earlier, develop Manual for GAHP for production of: (a) Duck egg (b) Dairy cattle (c) Porcine semen and embryo (d) Bovine (including buffalo) semen and embryo (e) Caprine semen and embryo	Published manuals	2016-2018	ASWGL Ad-hoc Expert taskforce on Development of the GAHP should be established. Other to be identified

	<p>Activity 1.2.3 As planned earlier, develop Manual for GMP for:</p> <p>(a) Slaughterhouse and meat processing plant</p> <p>(b) Ice cream processing plant</p> <p>(c) Yoghurt processing plant</p> <p>(d) Egg processing plant</p> <p>(e) Milk processing plant</p>	Published manuals	2016-2018	<p>ASWGL</p> <p>Ad-hoc Expert taskforce on Development of the GMP should be established.</p> <p>Other to be identified</p>
	<p>Activity 1.2.4 Update previously published GAHP manual on commercial broiler and layer incorporating information on veterinary drug residues in food of livestock origin.</p>	Published updated manual on commercial broiler and layer	2016-2020	<p>ASWGL</p> <p>Other to be identified</p>
	<p>Activity 1.2.5 Conduct training on HACCP and risk assessment giving illustrations with specific diseases</p>	Training materials and inventory of batches of trained personnel	2016-2018	<p>ASWGL</p> <p>Other to be identified</p>
	<p>Activity 1.2.6 Conduct training on humane slaughter of animals on need/request basis</p>	Batches of trained personnel	2016-2020	<p>ASWGL</p> <p>Other to be identified</p>
	<p>Activity 1.2.7 Conduct combined regional training courses on halal food for Food Inspectors, Food Auditors and Laboratory Analysts</p>	Batches of trained personnel	2016-2019	<p>ASWGL</p> <p>ASEAN Working Group on Halal Food</p> <p>Other to be identified</p>
	<p>Activity 1.2.8 Monitor adoption and practice of GAHP and GMP standards to reduce inter-country differences in compliance.</p>	Annual monitoring report on extent of adoption of approved standards for various commodities by AMS, capacity gaps, corrective measures taken, and plan ahead.	2016-2020	<p>ASWGL</p> <p>Other to be identified</p>

Output 2.1 Harmonized comprehensive integrated disease control measures				
	Activity 2.1.1 Operationalize the ACCAHZ as a regional body.	Fully functional ACCAHZ	2016-2018	
	Activity 2.1.2 After reorganisation of the FAF sector governance structure, which is currently under discussion, review the TORs, governance and financing mechanisms of the existing networks and forums under ASWGL with a view to see whether there are overlaps/duplications of functions, whether there are issues that are not adequately covered by existing bodies, whether and how some networks/bodies/forums may be consolidated for greater efficiency, and whether the governance structure and mechanism of various networks/bodies/forums may be standardized and synchronized with the new governance structure of FAF.	Review report on findings on TOR, governance mechanism, action plan and funding mechanism of the various networks, forums and bodies and recommendations for any rationalization or modification for greater efficiency. Action on recommendations	2016-2018 2018	ASWGL ASEAN NFP on Veterinary Products ATF on HPAI ACCAHZ Other to be identified
	Activity 2.1.3 Increase capacity development in Veterinary Epidemiology and undertake relevant epidemiological activities :			ASWGL ACCAHZ Other to be identified
	(a) Conduct regional training courses on field epidemiology	Administration of the course, report on participation and outcome.	2016-2018	ASWGL Thailand Other to be identified
	(b) Continue field epidemiology course-based Masters Programme offered in the	Progress report on the course administration, participation	2016-2020	ASWGL The Philippines

	Philippines	and outcome.		
	(c) Conduct training/workshop on Control and Eradication of priority animal diseases and zoonoses as well as other economically important trans-boundary animal diseases.	Administration of the course developed earlier, report on participation and outcome.	2016-2018	ASWGL The Philippines Other to be identified
	(d) Publish report of the baseline survey on incidence of CSF in the ASEAN region conducted by the Philippines	Publish baseline report and disseminate widely through different outlets	2016-2018	ASWGL The Philippines Other to be identified
	(e) Take steps for mutual recognition of veterinary professionals	Proposal with justification and steps for implementation, then report on follow up for implementation	2016-2018	ASWGL ACCAHZ Other to be identified
	(f) Implement the Project on EAHMI to integrate EAHMI into the core Veterinary Service by the use of GIS Technology developed by the Philippines	Progress report on implementation, participation, outcome and replication in AMS	2016-18	ASWGL The Philippines Other to be identified
	(g) Develop action plan, tools and funding mechanism for promoting One Health strategies at country and regional level.	Proposal containing concept, justification, action plan and funding mechanism.	2016-2020	ASWGL AVEC Other to be identified
	Activity 2.1.4 Monitor progress in implementation of programmes and projects and undertake new projects for control and eradication of economically important trans-boundary animal diseases:	See below	2016-2020	ASWGL ACCAHZ Other to be identified
	(a) Follow OIE guidelines in implementation of compartmentalization of livestock production systems by AMS	Annual report documenting extent of implementation in each AMS, outcomes, gaps and reasons, and steps ahead.	2016-2020	ASWGL Other to be identified

	(b) Participate in implementation of the Global Framework for the Progressive Control of Trans-boundary Animal Diseases	Annual progress report on implementation of the programme, outcomes, gaps and reasons and new initiatives taken.	2016-2020	ASWGL ACCAHZ Other to be identified
	(c) Implement Southeast Asia–China FMD 2020 programme for control and eradication of FMD from the region.	Annual progress report on activities undertaken, achievements, gaps and reasons and plans ahead	2016-2020	ASWGL ACCAHZ Other to be identified
	(d) Develop and implement plan for Expansion of Disease Free Zone in AMS for control and eradication of FMD.	Annual progress report on plan development and implementation, outcomes, and plan ahead.	2016-2020	ASWGL Other to be identified
	(e) Hold workshop on a harmonized methodology for economic assessment of FMD impact at the village and higher levels	Organization of the course, and report on participation and outcome	2016-2018 2018-2020	ASWGL Other to be identified
	(f) Participate in implementation of the ASEAN Roadmap for HPAI free region by 2020 including control of zoonosis.	Annual progress report on activities undertaken, outcomes, gaps and reasons and plan ahead.	2016-2020	ASWGL ATF on HPAI Other to be identified
	(g) Participate in implementation of the emergency pandemic threats programme (EPT-2), especially focused on H7N9 Virus	Annual progress report on activities undertaken, outcomes, gaps and reasons, and plan ahead.	2016-2020	ASWGL Other to be identified
	(h) Develop and implement a plan for elimination of Rabies as an animal and human health hazard from the region by 2020	Proposal on the plan and implementation procedure by lead country.	2016-2018	ASWGL Other to be identified

		Agreement by participating AMS for implementation and follow up	2018-2020	
.	Activity 2.1.5 : Management of exotic and emerging disease including emergency preparedness and response		2016-2020	ASWGL Other to be identified
Output 2.2 Harmonized food safety standards for livestock products to protect human health and expand trade				
	Activity 2.2.1 Taking common ASEAN approach, monitor harmonization of the procedures in implementing the SPS measures established by the OIE across AMS as agreed by ASWGL.	Annual monitoring report on extent of harmonization of procedures for implementing OIE, SPS measures by individual AMS, gaps and reasons and plan ahead.	2016-2020	ASWGL ACCAHZ Other to be identified
	Activity 2.2.2 Synergize ASEAN programmes on health and food safety with programmes of international organizations and bilateral partner country programmes in the region with a focus on livestock commodities.	Document summarizing synergies and differences between ASEAN programmes on health and food safety with programmes of international organizations and bilateral partner country programmes in the region with a focus on livestock commodities	2016-2018	ASWGL Other to be identified
	Activity 2.2.3 Develop ASEAN biosecurity manual for commercial swine and ruminant production.	Published manual	2016-2018	ASWGL Other to be identified
	Activity 2.2.4 Establish guidelines to control the use of anti-microbials in livestock.	Published Standard and monitoring report on progress in implementation.	2016-2020	ASWGL Other to be identified

	Activity 2.2.5 Conduct workshop/training on Animal Identification and Traceability Systems giving illustration with respect to a specific type of animal to improve food safety standards and traceability.	Proposal on workshop/training including course outline and implementation plan. Course delivery, report on participation and outcome	2016-2017 2017-2018	ASWGL Other to be identified
	Activity 2.2.6 Monitor progress in implementation of the ASEAN-China MOU on SPS collaboration to improve food safety, and animal inspection and quarantine procedures.	Annual progress report on implementation, outcomes and gaps, and plan ahead	2016-2020	ASWGL Other to be identified
	Activity 2.2.7 Promote production of safe and healthy livestock products by producers and processors at all levels following GAHP, GMP and HACCP guidelines	Produce extension/communication materials and publicise through various outlets, e.g. extension agencies, websites of farmer organisations and business organisations, etc.	2016-2020	ASWGL Other to be identified
	Activity 2.2.8 Share/exchange information and expertise with other agencies to improve the quality of surveillance and the effectiveness of responses to food-borne diseases and food poisoning outbreaks of livestock origin	Regular monitoring report on exchange of information with ASEAN Rapid Alert System for Food and Feed, and other agencies dealing with food-borne diseases and food poisoning outbreaks of livestock origin.	2016-2020	ASWGL Other to be identified
	Activity 2.2.9 Survey on the competency of existing network of food laboratories include ASEAN food reference laboratories in ASEAN in terms of	Survey report identifying current capacities and gaps of food laboratories in AMS to handle livestock/livestock	2016-2018	ASWGL Other to be identified

	facilities and personnel to support food safety policies and regulations with a focus on livestock/livestock products.	product origin food safety issues.		
Output 2.3 Harmonized vet laboratory and vet product quality standards to promote collaboration among labs, and expand trade in livestock and veterinary products				
	Activity 2.3.1 Implement Regional Strategic Framework for Veterinary Laboratory Capacity Building and Networking in the ASEAN	Document containing strategic framework for veterinary laboratory capacity building and networking, and implementation plan	2016-2018	ASWGL ACCAHZ Other to be identified
		Annual progress report of implementation progress	2017-2020	
	Activity 2.3.2 Conduct training on Harmonisation of Technical Requirements for Registration of Veterinary Medicinal Products (VICH)	Course justification, outline and implementation plan.	2016-2018	ASWGL ACCAHZ NFPVP Other to be identified
		Course administration and report on participation and outcome	2017-2018	
	Activity 2.3.3 Undertake training for skill development of Vet laboratory staff	Proposal containing justification, target personnel for training, training course outline and implementation plan.	2016-2018	ASWGL ACCAHZ Other to be identified
		Course administration, participation and outcome	2017-2020	

Output 2.4 Easily accessible standard information on animal health for quick planning and decision making by various stakeholders				
	Activity 2.4.1 Improve the operation of the ASEAN Animal Health Cooperation website http://asean-animalhealth.org/ with increased data content and regular update.	Regularly updated website with increased data content.	2016-2020	ASWGL ACCAHZ Other to be identified
	Activity 2.4.2 Make an inventory including profile and mailing list of Veterinary Epidemiologists and other animal health professionals at least with a Master's degree and upload on the website.	An inventory including profile of Vet Epidemiologists and other vet professionals uploaded on the website.	2016-2018	ASWGL ACCAHZ Other to be identified
	Activity 2.4.3 Make an inventory including profile of ASEAN accredited animal vaccine testing laboratories and upload on the website.	An inventory including profile of accredited vaccine testing labs uploaded on the website.	2016-2018	ASWGL ACCAHZ Other to be identified
	Activity 2.4.4 Develop and update disease incidence maps using epidemiological survey data.	GIS maps containing disease incidence data for the region updated regularly	2016-2020	ASWGL Other to be identified
	Activity 2.4.5 Utilization of regional information sharing platform such as ARAHIS for decision making	Epidemiological information to support decision making process	2016-2020	ASWGL Other to be identified
Output 3.1 More productive and globally competitive livestock sector				
	Activity 3.1.1 Promote multi-country collaborative research for	Create an <i>ad hoc</i> task force to develop an action plan on	2016-2018	ASWGL ASWG on Agricultural

	productivity improvement and policy analysis to benefit from sharing knowledge and experiences, and economies of scale in research.	collaborative research on productivity improvement and policy analysis.		R&D Other to be identified
	Activity 3.1.2 Undertake research and field innovation projects on increasing feed and fodder supply, enhancing utilization efficiency of locally available feed resources, and nutrition-genetics interaction for better management of both feed and animal genetic resources.	Design and implementation of multi-country collaborative research and field projects	2016-2020	ASWGL ASWG on Agricultural R&D Other to be identified
	Activity 3.1.3 In order to address problems of water footprint in intensive production systems, undertake research on water use efficiency under alternative feed-water management regimes.	Design and implementation of multi-country collaborative research	2016-2020	ASWGL ASWG on Agricultural R&D Other to be identified
	Activity 3.1.4 Conduct survey to identify successful technology, industry and institutional models developed in AMS, and facilitate their transfer and adaptation through joint ventures in the private sector as well as through public-private partnerships.	Survey report with inventory of transferable technology, industry and institutional models Jointly developed plans/projects by interested parties for transfer/adaptation of technology/industry/institution and their implementation.	2016-2018 2018-2020	ASWGL ASWG on Agricultural R&D Other to be identified
	Activity 3.1.5 Implement Training Course on Buffalo Production Using Reproductive Biotechnology with ASEAN-India Joint Cooperation Fund	Document containing course outline, implementation plan. Administration of the course, report on participation and	2016-2018 2017-2020	ASWGL Other to be identified

		outcome.		
Output 3.2 Resource conserving and environment friendly livestock development				
	Activity 3.2.1 Develop SMART indicators to monitor water pollution, land degradation due to nutrient loading and greenhouse gas emission from increased intensification and industrialisation of livestock production and processing keeping in mind that there are different species of livestock, and types and scales of establishments.	Published report on SMART indicators to be used by AMS Annual report on monitoring data following SMART indicators	2016-2018 2018-2020	ASWGL Other to be identified
	Activity 3.2.2 Undertake advocacy with extension services for diffusion of environmentally sound technologies in farming and food processing including improved manure management.	Produce advocacy/good practices extension materials and disseminate widely among extension agencies.	2016-2020	ASWGL Other to be identified
	Activity 3.2.3 Conduct survey on indigenous animal and microorganism genetic resources and take steps for their conservation, improvement and utilization.	Survey report containing inventory of indigenous species and breeds of animals and birds in the region with information on habitat, current population, recent trends in population change etc. Develop plan/projects for conservation/improvement/utilization of resources and implement.	2016-2018 2018-2020	ASWGL Other to be identified
	Activity 3.2.4 Develop emergency response capacity to deal with animal	Proposal containing nature and extent of emergency	2016-2020	ASWGL

	welfare, feed stock, animal reproductive and disease control measures during and/or after natural disasters	response preparation required and components of preparation, modes of administration, funding mechanism, and follow up action required.		Other to be identified
Output 4.1: Livestock serve as an important pathway for poverty alleviation, improved nutrition and gender equality				
	Activity 4.1.1 Make policy advocacy for low interest livestock credit accessible to the poor, especially women, through micro-credit, SME and other programmes designed for poverty alleviation.	Brief document justifying low interest livestock credit for smallholders, especially women, and dialogue with credit agencies	2016-2018	ASWGL Other to be identified
	Activity 4.1.2 Document success stories in ASEAN to identify institutions like famer groups, cooperatives, contract farming that successfully improved small-scale producers' access to quality inputs and high value markets for outputs, and disseminate it for adoption by others.	A study report containing inventory of successful institutions that helped smallholder access to quality input and high value output market.	2016-2018	ASWGL Other to be identified
		Publicise the survey result widely through various outlets to potential uses.	2017-2020	
	Activity 4.1.3 Make policy advocacy for programmes/projects to encourage larger scale enterprises to perform a mentoring role for smallholders to foster adoption of innovations and participation in high value markets.	A document showing mutual benefits of partnership between large and small scale livestock enterprises , and justification for public sector support to facilitate such collaboration, and disseminate	2016-2020	ASWGL Other to be identified

		the document widely.		
	Activity 4.1.4 Make advocacy for giving priority in public sector research, programmes, projects and technology diffusion for productivity improvement and market access of smallholder livestock producers.	A document showing impact of smallholder livestock development projects on poverty alleviation, food security, and gender equality and further justification for public sector research and technology diffusion for productivity improvement and market access of small scale producers, and follow up for project formulation and implementation.	2016-2020	ASWGL Other to be identified
	Activity 4.1.5 Encourage school feeding programmes with milk and/or eggs linked to local livestock operations to address problems of under-nutrition among the poor	Encourage dialogue with concerned ministries/agencies like Education, Health and Finance, Agriculture/Livestock, FAO, UNICEF and local livestock development projects/agencies and industries to design and introduce school feeding programmes.	2016-2020	ASWGL Other to be identified