



**ASEAN STRATEGIC PLAN OF ACTION FOR
COOPERATION ON LIVESTOCK (2021-2025)**

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
ASF	African Swine Fever
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 Vision and SP-FAF 2016-2025 was endorsed by the 37th AMAF Meeting 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.

Subsequently, the ASEAN Strategic Plan of Action (SPA) for Cooperation on Livestock (2016-2020) was adopted by the Thirty Eighth Meeting of the ASEAN Ministers on Agriculture and Forestry (38th AMAF), held on 6 October 2016 in Singapore.

As a continuation, the ASEAN Strategic Plan of Action for Cooperation on Livestock (2021-2025) was formulated based on the Vision and SP-FAF (2016-2025) and the SPA for Cooperation on Livestock (2016-2020). The Strategic Plan of Action is living document and could be updated frequently 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 2021-2025

Taking into account the ASEAN Vision on Food, Agriculture and Forestry towards 2025 and the progress made to date in implementing the ASEAN Economic Community Blueprint 2025 measures, the following goal and objectives are defined in the Strategic Plan of Action 2021-2025 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 (2021-2025) 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.

Activity 1.1.5. Developing the software for animal farm ID management system.

Output 1.2: Harmonized production and processing standards to promote trade

Activity 1.2.1 As planned earlier, develop Manual for GMP for:

Slaughterhouse and meat processing plant

Activity 1.2.2. Update previously published GAHP manuals on commercial broiler and layer incorporating information on veterinary drug residues in food of livestock origin.

Activity 1.2.3. Conduct training on HACCP and risk assessment giving illustrations with specific diseases.

Activity 1.2.4. Conduct training on humane slaughter of animals.

Activity 1.2.5. Conduct combined regional training courses on halal food for Food Inspectors, Food Auditors and Laboratory Analysts.

Activity 1.2.6. Continue to 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. 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. Expanded program for paraveterinarians to strengthen disease control measures through capacity building.
- (g) Develop action plan, tools and funding mechanism for promoting One Health strategies at country and regional level.

Activity 2.1.3. 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 FAO-OIE Global Framework for the Progressive Control of Trans-boundary Animal Diseases.
- (c) Develop and implement plans for expansion of disease free zone in AMS for control and eradication of FMD and HPAI.
- (d) Hold workshop on a harmonized methodology for economic assessment of FMD impact at the village and higher levels.
- (e) Participate in implementation of the emergency pandemic threats programme (EPT-2), especially focused on H7N9 Virus.
- (f) Implement SEACFMD 2021-2025 roadmap.
- (g) Develop and conduct activities and programmes on swine diseases including ASF, CSF and PRRS.

Activity 2.1.4. 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 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. 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 2.2.4. Monitor progress in implementation of the ASEAN-China MOU on SPS collaboration to improve food safety, and animal inspection and quarantine procedures.

Activity 2.2.5. Promote production of safe and healthy livestock products by producers and processors at all levels following GAHP, GMP and HACCP guidelines.

Activity 2.2.6. 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 2.2.7. 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.

Activity 2.3.4. Update/train national labs on current technology relevant to the current situation in the region.

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.

Output 4.2. Developing model of livestock farm

Activity 4.2.1. Model of pig biosecurity farm for ASF disease.

Activity 4.2.2. Model of organic animal farm

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 ACCAHZ will implement the relevant activities under ASEAN Cooperation on Livestock.

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 2023 and a final review should be undertaken in 2025.

ANNEX 1: DETAILED SPA - LIVESTOCK SECTOR, 2021-2025

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.		2021-2025	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.	2021-2025	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	2021-2025	ASWGL Other to be identified
	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.	Advocacy document with justification to redefine SMEs to include small-scale livestock production and processing enterprises	2021-2023 2021-2023	ASWGL Other to be identified

		Regulation by SME authorities redefining SME as above		
	Activity 1.1.5. Developing the software for animal farm ID management system.	the software for management system	2021-2023	ASWGL Other to be identified
Output 1.2: Harmonized production and processing standards to promote trade				ASWGL Other to be identified
	Activity 1.2.1 As planned earlier, develop Manual for GMP for: - Slaughterhouse and meat processing plant	Published manuals	2021-2023	ASWGL Other to be identified
	Activity 1.2.2 Update previously published GAHP manual on commercial broiler and layer incorporating information on veterinary drug residues in food of livestock origin.	Published updated manual on commercial broiler and layer	2021-2024	ASWGL Other to be identified
	Activity 1.2.3 Conduct training on HACCP and risk assessment giving illustrations with specific diseases	Training materials and inventory of batches of trained personnel	2021-2025	ASWGL Other to be identified
	Activity 1.2.4 Conduct training on humane slaughter of animals on need/request basis	Batches of trained personnel	2021-2025	ASWGL Other to be identified
	Activity 1.2.5 Conduct combined regional training courses on halal food for Food Inspectors, Food Auditors and Laboratory Analysts	Batches of trained personnel	2021-2025	ASWGL ASEAN Working Group on Halal Food Other to be identified

	Activity 1.2.6 Continue to monitor adoption and practice of GAHP and GMP standards to reduce inter-country differences in compliance.	Annual monitoring report on extent of adoption of approved standards for various commodities by AMS, capacity gaps, corrective measures taken, and plan ahead.	2021-2025	ASWGL Other to be identified
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.	Fully functional ACCAHZ	2021-2022	
	Activity 2.1.2 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.	2021-2023	ASWGL Thailand Other to be identified
	(b) Continue field epidemiology course-based Masters Programme offered in the Philippines	Progress report on the course administration, participation and outcome.	2021-2023	ASWGL The Philippines
	(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.	2021-2023	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	2021-2023	ASWGL The Philippines Other to be identified
	(e) Take steps for mutual recognition of veterinary professionals	Proposal with justification and steps for implementation, then	2021-2023	ASWGL ACCAHZ

		report on follow up for implementation		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. Expanded program for para-veterinarians to strengthen disease control measures through capacity building	Progress report on implementation, participation, outcome and replication in AMS	2021-23	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.	2021-2023	ASWGL AVEC Other to be identified
	Activity 2.1.3 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	2021-2025	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.	2021-2025	ASWGL Other to be identified
	(b) Participate in implementation of the Global Framework for the Progressive Control of Trans-boundary Animal Diseases	Annual progressreport on implementation of the programme, outcomes, gaps and reasons and new initiatives taken.	2021-2025	ASWGL ACCAHZ Other to be identified
	(c) 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.	2021-2025	ASWGL Other to be identified

	(d) 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	2021-2022	ASWGL Other to be identified
	(e) 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.	2021-2025	ASWGL Other to be identified
	(f) Implement SEACFMD 2021-2025 roadmap	Annual progress report on implementation, participation and outcome of the roadmap	2021-2025	ASWGL
	(g) Develop and conduct activities and programmes on swine diseases including ASF, CSF and PRRS	Annual progress report on activities and programmes conducted for swine diseases	2021-2025	ASWGL
.	Activity 2.1.4 : Management of exotic and emerging disease including emergency preparedness and response		2021-2025	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.	2021-2025	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	2021-2023	ASWGL Other to be identified
	Activity 2.2.3 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	2021-2022	ASWGL Other to be identified
	Activity 2.2.4 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	2021-2025	ASWGL Other to be identified
	Activity 2.2.5 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.	2021-2025	ASWGL Other to be identified
	Activity 2.2.6 Share/exchange information and expertise with other agencies to improve the quality of surveillance and the effectiveness of responses to food-borne diseases and	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	2021-2025	ASWGL Other to be identified

	food poisoning outbreaks of livestock origin	poisoning outbreaks of livestock origin.		
	Activity 2.2.7 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.	Survey report identifying current capacities and gaps of food laboratories in AMS to handle livestock/livestock product origin food safety issues.	2021-2025	ASWGL Other to be identified
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 Annual progress report of implementation progress	2021-2025 2021-2025	ASWGL ACCAHZ Other to be identified
	Activity 2.3.2 Conduct training on Harmonisation of Technical Requirements for Registration of Veterinary Medicinal Products (VICH)	Course justification, outline and implementation plan. Course administration and report on participation and outcome	2021-2023 2021-2023	ASWGL ACCAHZ NFPVP Other to be identified
	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.	2021-2025	ASWGL ACCAHZ Other to be identified

		Course administration, participation and outcome	2021-2025	
	Activity 2.3.4 Update/train national labs on current technology relevant to the current situation in the region			
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.	2021-2025	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.	2021-2023	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.	2021-2023	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	2021-2023	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	2021-2023	ASWGL Other to be identified

Output 2.5. Coordinated effort to promote prudent antimicrobial usage monitor and detect antimicrobial resistance infections and reduce its spread in livestock		2021-2025	
Output 3.1 More productive and globally competitive livestock sector			
	Activity 3.1.1 Promote multi-country collaborative research for productivity improvement and policy analysis to benefit from sharing knowledge and experiences, and economies of scale in research.	Create an <i>ad hoc</i> task force to develop an action plan on collaborative research on productivity improvement and policy analysis.	2021-2023 ASWGL ASWG on Agricultural 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	2021-2023 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	2021-2023 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	2021-2025 ASWGL ASWG on Agricultural R&D Other to be identified
		Jointly developed plans/projects by interested parties for transfer/adaptation of	2021-2025

		technology/industry/institution and their implementation.		
	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 outcome.	2021-2023 2021-2023	ASWGL Other to be identified
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	2021-2022 2021-2025	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.	2021-2025	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.	2021-2025	ASWGL Other to be identified

		Develop plan/projects for conservation/ improvement/utilization of resources and implement.	2021-2025	
	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	Proposal containing nature and extent of emergency response preparation required and components of preparation, modes of administration, funding mechanism, and follow up action required.	2021-2025	ASWGL Other to be identified
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.	Brief document justifying low interest livestock credit for smallholders, especially women, and dialogue with credit agencies	2021-2025	ASWGL Other to be identified
	Activity 4.1.2 Document success stories in ASEAN 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.	A study report containing inventory of successful institutions that helped smallholder access to quality input and high value output market. Publicise the survey result widely through various outlets to potential uses.	2021-2025 2021-2025	ASWGL Other to be identified
	Activity 4.1.3 Make policy advocacy for programmes/projects to encourage larger scale enterprises to perform a mentoring role for smallholders	A document showing mutual benefits of partnership between large and small scale livestock enterprises , and justification for public sector support to facilitate	2021-2025	ASWGL Other to be identified

	to foster adoption of innovations and participation in high value markets.	such collaboration, and disseminate 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.	2021-2025	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.	2021-2025	ASWGL Other to be identified
Output 4.2. Developing model of livestock farm				
	Activity 4.2.1. Model of pig biosecurity farm for ASF disease.	6 Model of pig biosecurity farm	2021-2023	ASWGL Other to be identified
	Activity 4.2.2. Model of organic animal farm	6 Model of organic animal farm	2021-2023	ASWGL Other to be identified