

Resolution and Plan of Action for ASEAN Region Towards 2030

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Resolution on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030

We, the Ministers of the ASEAN-SEAFDEC Member Countries on the occasion of the Forty-second Meeting of the ASEAN Ministers on Agriculture and Forestry (42nd AMAF) held virtually on 21 October 2020 in Cambodia, with the Minister of Japan responsible for fisheries through *ad referendum*, taking into consideration the “Resolution on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020” adopted by the Ministers responsible for fisheries of the ASEAN-SEAFDEC Member Countries during the *ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security Towards 2020 “Fish for the People 2020: Adaptation to a Changing Environment* in 2011, and accommodating the emerging issues that could occur in the near future;

Reaffirming our commitment to the United Nations 2030 Agenda for Sustainable Development adopted in 2015, particularly those that contribute to achieving sustainable development and management of fisheries;

Bearing in mind the possible impacts climate change has on fishery resources, and noting ongoing efforts to address and better understand climate change under the United Nations Framework Convention on Climate Change (UNFCCC) adopted in 1994, the Paris Agreement, and the Intergovernmental Panel on Climate Change (IPCC);

Being guided by the 2007 ASEAN Charter, which aims to ensure sustainable development for the benefit of present and future generations and to place the well-being, livelihood, and welfare of the peoples at the center of ASEAN community building process;

Recognizing the ASEAN Community Vision 2025, and the Vision and Strategic Plan for ASEAN Cooperation in Food, Agriculture and Forestry (2016-2025) which are meant to achieve “A competitive, inclusive, resilient and sustainable Food, Agriculture, and Forestry (FAF) sector integrated with the global economy, based on a single market and production base contributing to food and nutrition security and prosperity in the ASEAN Community”;

Being aware of the ASEAN-Japan Cooperation through the ASEAN Plus Three Mechanism that aims to support the realisation of ASEAN Community Vision 2025;

Also **bearing in mind** the continuous efforts of the ASEAN Member States (AMSs) in ensuring the sustainable development of fisheries and aquaculture is in line with relevant international guidelines and agreements, *e.g.* the FAO Code of Conduct for Responsible Fisheries; and the Regional Guidelines on Responsible Fisheries in Southeast Asia, the Regional Plan of Action to Promote Responsible Fishing Practices including Combating IUU Fishing in the Region (RPOA-IUU) framework, and the ASEAN RPOA for the Management of Fishing Capacity;

Acknowledging the efforts of the AMSs in implementing the Resolution on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020 adopted on 17 June 2011; and the Joint ASEAN-SEAFDEC Declaration on Regional Cooperation for Combating Illegal, Unreported and Unregulated Fishing and Enhancing the Competitiveness of ASEAN Fish and Fishery Products, adopted on 3 August 2016;

Recognizing the ASEAN-SEAFDEC Strategic Partnership that provides the cooperative platform between ASEAN and SEAFDEC in achieving the long-term common goals towards the development and management of sustainable fisheries through various regional initiatives;

<p>DO HEREBY RESOLVE, without prejudice to the sovereign rights, obligations, and responsibilities of our countries under relevant international laws and arrangements, to:</p>
<p>1. Endeavour to sustain the supply of fish and fishery products from the ASEAN region to improve food security, facilitate poverty alleviation, and improve the livelihoods of ASEAN people dependent on the harvesting, farming and marketing of fish and fishery products, by enhancing the necessary national fisheries policies, legal and institutional frameworks that encourage and support responsible fisheries and aquaculture operations, including small-scale operations as well as providing supplementary livelihood options;</p>
<p>2. Further develop strategic partnerships and cooperation to maximize the synergies and complementarities among the various stakeholders, <i>e.g.</i> government, private sector, civil society, and relevant development partners and donor agencies, in addressing regional and global challenges that may impact sustainable development of fisheries and aquaculture throughout the supply chain;</p>
<p>3. Promote capacity building of relevant organizations and stakeholders through mobilization of resources and harmonization of initiatives that support fisheries communities and governments, with due consideration given to gender equality;</p>
<p>4. Strengthen fisheries governance, in line with international practices, by evaluating current constraints to ensure comparability and compatibility of the required practices and the operations of fisheries in the AMSs;</p>
<p>5. Further develop regional initiatives to promote a responsible fisheries management mechanism, taking into account the specific social, economic, cultural, ecological, and institutional contexts and diversity of the ASEAN and ASEAN fisheries in the spirit of the realization of the ASEAN Economic Community and the ASEAN Socio-Cultural Community;</p>
<p>6. Implement effective management of fisheries that integrates habitat with fishery resources management, and aims to improve the social and economic benefits of all stakeholders, especially by delegating selected management functions to the local level and promoting co-management as a partnership between government and relevant stakeholders;</p>
<p>7. Promote sound management of fishing capacity and use of responsible fishing technologies and practices, recognizing increasing emphasis on rights-based fisheries; and at the same time, secure the rights and well-being of inland and coastal fisheries communities as well as the ecological well-being;</p>
<p>8. Strengthen cooperation among AMSs and with international and regional organizations in combating IUU fishing and management of fishing capacity to balance available resources;</p>
<p>9. Support the efforts to promote low carbon development technologies by minimizing the contribution of the fisheries sector to greenhouse gas emissions, with emphasis on promoting the use of energy-efficient equipment and alternative energy sources;</p>
<p>10. Enhance resilience of fisheries communities in anticipating and adapting to changes in the environments of inland and coastal waters, including those caused by climate change, which could adversely affect communities in their operations of fisheries and aquaculture;</p>
<p>11. Increase awareness and support the reduction of impacts of aquatic pollution and marine debris, including abandoned, lost or otherwise discarded fishing gear (ALDFG), and microplastics/microbeads on fisheries and aquaculture;</p>
<p>12. Strengthen knowledge, including local knowledge, and science-based development and management of fisheries by enhancing the national capacity to collect, analyze, and share fisheries data and information;</p>
<p>13. Improve the working conditions of people engaged in fisheries activities, and strengthen measures for safety of fishing vessels taking into consideration the specificity of fisheries of the region;</p>
<p>14. Enhance awareness of the contributions that inland fisheries have on food security and livelihoods, and ensure that the well-being of fishery resources and stakeholders are taken into consideration when undertaking development projects that could impact on the sustainability of inland fisheries;</p>
<p>15. Promote inter-agency coordination of the multiple uses of inland aquatic resources to conserve inland aquatic habitats;</p>

16. Strengthen aquaculture governance and implement good aquaculture practices to sustain production for food safety and security, sustainable livelihoods, and rural development;
17. Promote cooperation among AMSs and with international and regional organizations to support the implementation of good aquaculture practices through joint research, technology transfer, and human resource development;
18. Mitigate the potential impacts of aquaculture on the environment and biodiversity including the spread of pathogens of aquatic animals caused by over-intensification of aquaculture operations, inappropriate implementation of aquatic animal health management, and uncontrolled introduction and movement of aquatic species;
19. Promote joint ASEAN approaches and positions in international trade in fish and fishery products produced in the region, by harmonizing the standards, criteria, and guidelines, and developing mutually-recognized agreements on sustainability and food safety management systems;
20. Support the competitiveness of the ASEAN fish trade through the development of procedures and programs that would certify, validate, or otherwise indicate the origin of fish and fishery products to improve product traceability, sustainable fishing practices, and food safety, in accordance with international and national requirements;
21. Optimize the utilization of catch/harvest by reducing post-harvest losses and wastes to increase fish supply and improve economic returns through promotion of appropriate technologies, facilities and best practices along the supply chain;
22. Improve and exchange technologies, and enhance facilities to ensure that fish quality assurance and safety management systems are in place and operational, taking into account the importance of traditional fishery products and food security requirements, and promote the development of fishery products as supplementary livelihoods for fisheries communities;
23. Support the Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030 adopted by the Senior Officials of the ASEAN-SEAFDEC Member Countries on [Date]; and to
24. Pledge our commitment to fully support this Resolution, and task the ASEAN Senior Officials to implement necessary actions and report the progress in the advancement of sustainable fisheries that contribute to a prosperous, stable, and peaceful ASEAN Community;
AND DO HEREBY DECIDE, That the Resolution on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030 be implemented as soon as possible and use the <i>Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030</i> adopted by the Senior Officials of the ASEAN-SEAFDEC Member Countries on the occasion of the Special Senior Official Meeting of the 41 st ASEAN Ministerial Meeting on Agriculture and Forestry (SSOM-41 st AMAF) held virtually on 5 August 2020 in Brunei Darussalam, and the Senior Official of Japan responsible for fisheries through <i>ad referendum</i> , as priority actions for formulating and implementing programs, projects, and activities by the AMSs and through the appropriate ASEAN-SEAFDEC mechanisms.

Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030

<p>The Senior Officials of the ASEAN-SEAFDEC Member Countries on the occasion of the Special Senior Officials Meeting of the 41st ASEAN Ministerial Meeting on Agriculture and Forestry (SSOM-41stAMAF) held virtually on 5 August 2020 in Brunei Darussalam, with the Senior Official of Japan responsible for fisheries through <i>ad referendum</i>, taking into consideration the priority actions stipulated in the Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020 adopted by the Senior Officials responsible for fisheries of ASEAN-SEAFDEC Member Countries during the ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security Towards 2020 “Fish for the People 2020: Adaptation to a Changing Environment” in 2011, as well as the emerging issues; and</p>
<p>Guided by the (Draft) Resolution on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030, and the need to enhance collaboration among government agencies that have the responsibility for fisheries and fisheries-related issues in order to harmonize policies, plans and activities that support sustainable fisheries, food safety and security at the national and regional levels;</p>
<p>Recognizing the progress made by the ASEAN Member States (AMSs) in the implementation of the Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2020;</p>
<p>Recalling the initiatives of the AMSs to adopt the policy frameworks and instruments developed through the ASEAN-SEAFDEC Strategic Partnership (ASSP);</p>
<p>HEREBY DECIDE That the Plan of Action on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030 should serve as priority actions for AMSs in developing and implementing programs, projects, and activities in support of the implementation of the Resolution on Sustainable Fisheries for Food Security for the ASEAN Region Towards 2030.</p>
<p>A. Planning and Information</p>
<p>1. Integrate the planning of marine capture fisheries, inland capture fisheries, and aquaculture sub-sectors to promote sustainable development of the fisheries sector, including harvesting and post-harvest in both capture fisheries and aquaculture;</p>
<p>2. Strengthen the capacity to plan for sustainable fisheries in the context of changing socio-economic and ecological environments through the mobilization of the most up-to-date data and information, and the provision of appropriate policy summaries for decision makers;</p>
<p>3. Strengthen national statistical mechanisms for fisheries and aquaculture including data collection disaggregated at species level, and exchange of statistical data; and include collection/compilation of non-routine data and information, <i>e.g.</i> from fish consumption surveys, species composition, biological information, as well as local and indigenous knowledge, with the aim of improving the valuation of fisheries including monitoring of their performance;</p>
<p>4. Establish reference points, and come up with estimated biomass or capacity level to determine the maximum sustainable yield, allowable biological catch, or allowable effort for marine and inland fisheries;</p>
<p>5. Strengthen the collection of data and information, where relevant, on species under international concern, <i>e.g.</i> sharks and rays, sea turtles, catadromous eels, aquatic mammals, etc., and harmonize/standardize data collection methods among countries in the region;</p>
<p>6. Enhance regional fishery information systems and mechanisms to facilitate sharing, exchange and compilation of statistics and information required at the sub-regional and regional level, and apply where appropriate, regionally standardized definitions and classifications for statistical data to facilitate regional compilation, analysis, and data exchange;</p>
<p>7. Coordinate, decentralize and enhance the sharing of relevant statistics and fisheries-related data and information between the national fisheries and other authorities including those responsible for food security, environment, trade, aquaculture, water resources, agriculture/ forestry, wetlands, migration/employment, and rural development;</p>
<p>8. Promote the use of simple and practical indicators that had been developed, for planning, monitoring, and evaluation of fisheries in support of achieving sustainability;</p>

9. Share and exchange information on research findings, good practices, and experiences among countries, including national and regional institutions;
B. Fisheries Management
10. Regularly review, update and strengthen national fisheries policies, legal and institutional frameworks through consultation and engagement of government agencies, the private sector, fishers, civil society, and other relevant stakeholders;
11. Accelerate the development of fisheries management plans as basis for fisheries conservation and management;
12. Implement measures to prevent unauthorized fishing and eliminate illegal fishing practices, <i>e.g.</i> strengthening enforcement of laws and regulations, establishing monitoring control and surveillance (MCS) mechanisms and network, developing and promoting responsible fishing practices, encouraging supplementary livelihood options;
13. Enhance implementation of comprehensive policies for fisheries management through (i) licensing systems (boats, gear, and people); (ii) rights-based fisheries; (iii) supportive legal and institutional frameworks; (iv) strengthened institutional cooperation; and (v) streamlined co-management;
14. Strengthen the adoption of fisheries management approaches, <i>e.g.</i> co-management and ecosystem approaches to fisheries management, at all levels with all relevant stakeholders involved in the process of planning and policy formulation for management of natural resources, conservation, rehabilitation of habitats and protective geographical features, and improvement of human well-being;
15. Strengthen the capacity of fisheries communities and the capability of fisheries-related organizations (<i>e.g.</i> by empowering such organizations as appropriate) to implement necessary actions towards increased resilience, improved livelihoods, adoption of supplementary livelihoods, and poverty alleviation, in support of achieving sustainable development with gender integration in the process;
16. Enhance the participation of local communities, fisheries-related organizations, and other stakeholders in fisheries management and in fisheries and stock assessments by providing data, local ecological information, and traditional knowledge on the status of fisheries and stocks;
17. Raise awareness of the need to develop financial incentives, especially for small-scale stakeholders and cooperatives, <i>e.g.</i> micro-credit, with national and regional institutional assistance for the responsible development of fisheries enterprises and developmental activities that optimize economic returns;
18. Enhance the efficient use of energy by adapting appropriate technologies for fishing gear and fishing vessel design, and fishing operations; and promote the use of alternative energy sources;
19. Improve the capability of fishing crew and workers in fishing industry, and conduct educational and skills development program for new crew members and workers entering the industry; while also adopt appropriate technologies to optimize number of crew onboard fishing vessels;
20. Promote the implementation of good and appropriate employment practices in accordance with domestic laws and regulations or relevant international instruments;
21. Enhance the capacity of relevant authorities and communities to collaboratively resolve conflicts on resources utilization;
22. Explore the potential of under-utilized fishery resources through comprehensive fishery resources surveys, and promote their exploitation in a precautionary manner based on analysis of the best available scientific information;
23. Encourage the implementation of the Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines) and promote the collection of sex-disaggregated statistics on fishers and fish workers in the fish value chain;
24. Promote fair distribution of benefits gained from both intra-regional and international trade of fish and fishery products among small-scale actors along the whole value chain;
25. Monitor and assess the perceived impacts of climate change to fisheries and aquaculture; and adjust existing programs to take into consideration the effects of climate change and natural disasters, focusing on the programs for (i) developing appropriate adaptation and mitigation plans; (ii) integrating fisheries and habitats management; (iii) enhancing community resilience through

livelihood diversification; (iv) strengthening local organizations; and (v) promoting safety at sea and other priority areas;
26. Assess and manage the impacts of aquatic pollution and marine debris, including abandoned, lost, or otherwise discarded fishing gear (ALDFG) and microplastics/microbeads, on fisheries and aquaculture;
27. Foster cooperation with other countries for the conduct of stock assessment on straddling, transboundary, highly migratory, and shared fishery resources, as appropriate, to serve as inputs for formulating science-based fishery management plan; and strengthen sub-regional and bilateral cooperation including inter-agency cooperation for management of such resources;
Marine Fisheries
28. Strengthen the implementation of measures and activities to combat IUU fishing by ensuring compliance with national laws and regulations, and with the provisions of relevant international instruments; encourage the development and implementation of national plans of action to combat IUU fishing; promote inter-agency coordination for effective implementation of laws and regulations; and enhance awareness and understanding of applicable international and regional instruments and agreements through information dissemination campaigns;
29. Establish and strengthen regional, sub-regional, and bi-lateral coordination on fisheries management and efforts to combat IUU fishing; and where appropriate promote the establishment of Monitoring, Control and Surveillance (MCS) network through inter-agency coordination and information sharing;
30. Mobilize regional/sub-regional collaboration frameworks and tools for combating IUU fishing, <i>e.g.</i> <i>Regional Plan of Action to Promote Responsible Fishing Practices</i> including Combating Illegal, Unreported and Unregulated Fishing (RPOA-IUU); ASEAN Regional Plan of Action for the Management of Fishing Capacity (RPOA-Capacity); Regional Fishing Vessels Record (RFVR); ASEAN Catch Documentation Scheme (ACDS), and the use of technologies to support monitoring and surveillance of fishing activities, <i>e.g.</i> Vessel Monitoring System (VMS), traceability systems;
31. Support consultative dialogues at regional/sub-regional level among fisheries legal officers to share and exchange information on updated legal and regulatory frameworks in addressing issues in fisheries management;
32. Improve the capacity of relevant national authorities to effectively implement the requirements of port State measures and flag State responsibilities;
33. Intensify research on the impacts of various fishing gear types and methods on the ecosystem and populations of aquatic animals, and develop and promote environment-friendly fishing practices, <i>e.g.</i> low impact and fuel efficient (LIFE) fishing gears/methods;
34. Mitigate bycatch and discard concerns including excessive catch of juvenile fish by promoting the adoption and implementation of relevant regional and international guidelines, <i>e.g.</i> FAO International Guidelines on Bycatch Management and Reduction of Discards;
35. Promote resource enhancement approaches with appropriate monitoring and evaluation programs, <i>e.g.</i> deployment of appropriate resource enhancement structures, restocking of commercially-important aquatic species, and restoration of degraded habitats, taking into consideration possible socio-ecological impacts;
36. Apply the concept of fisheries <i>refugia</i> in line with the Regional Guidelines on the Use of Fisheries <i>Refugia</i> for Capture Fisheries Management in Southeast Asia to complement the existing conservation and management measures, including the integration of fisheries with habitats management;
37. Promote the adoption of different management approaches to sustainably manage major critical coastal habitats, <i>e.g.</i> mangroves, coral reefs and seagrasses; and develop and disseminate information and guidance on the use of appropriate tools and interventions;
38. Enhance safety at sea, decent working conditions and implementation of onboard fishing vessels sanitation, including the development of new design for fishing vessels, in compliance with relevant international standards;
39. Assess the possible impacts of subsidies on fisheries, particularly on the special requirements and the needs of small-scale fisheries in the region;
Inland Fisheries

40. Establish and implement comprehensive policies and supporting legal and institutional frameworks, and adopt ecosystem approaches to inland fisheries management that devolve co-management responsibilities to the local authorities and stakeholders, strengthen the rights of communities, and promote rights-based fisheries;
41. Enhance awareness of the importance of inland fisheries for local food security, and the importance of rehabilitating and restoring habitats for migratory inland aquatic animals, restocking indigenous aquatic species to enhance productivity (with monitoring and evaluation of restocking programs) and encouraging culture-based inland fisheries, where appropriate;
42. Monitor the impacts, and mitigate the negative impacts of invasive/alien species on the inland ecosystem and biodiversity;
43. Strengthen inter-agency coordination (national/sub-regional) on multiple-use water resources of the wetlands/ flood- plains to sustain inland fisheries, mitigate conflicts among users and also encourage better coordination to address transboundary inland fisheries management issues;
44. Promote Research and Development (R&D) to understand the migration patterns, spawning grounds and seasons, and nursery grounds of important inland aquatic animals; and ensure the sustainability of inland fisheries by maintaining health of the ecosystem, particularly the inter-connectivity of habitats and the specific management needs during the dry season;
45. Monitor and assess the impacts of the construction/operations of man-made structures that could alter the water ways and affect migration and spawning of aquatic animals, particularly those at risk of overexploitation, and develop mitigating measures and appropriate conservation and management measures for such impacts through consultative processes that may involve collaboration with regional organizations;
46. Encourage coordinated planning and management on the use of inland water bodies including rivers, floodplains, wetlands, etc. through (i) resource enhancement programs; (ii) inland fisheries management programs; (iii) environmental impact assessment of structures on the aquatic resources; and (iv) restocking of indigenous and/or commercially-important aquatic animals species taking into consideration concerns on genetic diversity; and build/improve the capacity of human resources and institutions in the implementation of such programs;
47. Formulate guidelines to promote the use of practical and simple indicators for inland/ floodplain fisheries within the national inland fisheries management framework, to facilitate (i) timely local level fisheries management decisions with due respect to the large number of people/ farmers that take part in fishing; (ii) dialogues to ensure that the inter-connectivity of fish migration path is kept as a tool for management/conservation measures; and (iii) adaptation to the effects of climate change within water bodies;
C. Aquaculture
48. Strengthen national programs and policies on aquaculture address social, economic, and environmental aspects of sustainable aquaculture to improve food security, livelihoods, and employment, and alleviate poverty by (i) providing the mechanisms and enabling policies for good aquaculture practices, efficient markets and fair trade; (ii) strengthening the capacity of small-holder fish farmers; and (iii) promoting inter-agency collaborations;
49. Develop and implement ASEAN guidelines for environment- friendly and responsible aquaculture and good aquaculture practices that cover (i) integration of quality and safety management systems for products with significant trade potentials; (ii) use of chemicals in aquaculture in relation to food safety; (iii) development of product traceability systems from farm to market; and (iv) implementation of quarantine and inspection/ sampling procedures and Sanitary and Phytosanitary (SPS) measures for aquaculture products to ensure food safety;
50. Integrate aquaculture into rural development activities within the context of multiple-use of land and water resources through inter-agency coordination in policy formulation, project planning and implementation, stakeholder consultation, extension services and technology transfer; and participate in and provide support to regional initiatives that assess the role of aquaculture in poverty alleviation for better policy formulation;
51. Explore the use of advanced technologies for marine (inshore and offshore) and inland aquaculture, including the development of full-cycle breeding and aquaculture technologies for selected high-value species;

<p>52. Implement measures or strategies at national and local levels to: (i) monitor and regulate aquaculture operations; (ii) prevent over intensification of aquaculture; and (iii) ensure that activities are carried out in a sustainable manner and that aquatic animal welfare is taken into consideration as appropriate; (iv) effectively enforcing regulations to avoid conflict in the use of common resources; and (v) adopt the concept of environmental carrying capacity including the implementation of good aquaculture practices;</p>
<p>53. Provide government support for R&D on: (i) improving existing genetic resources; (ii) assessing the impact of climate change on aquaculture; and (iii) improving the feeding and aquatic animal health management;</p>
<p>54. Promote the production and distribution of specific pathogen-free (SPF) and specific pathogen-resistant (SPR) broodstock and seeds through: (i) establishment of certified government or private hatcheries as sources of quality seed; (ii) dissemination of new breeding technologies and techniques for the effective distribution and maintenance of genetically-improved strains; and (iii) implementation of sound policies that promote better hatchery management practices, including the responsible collection and use of wild broodstock and seed;</p>
<p>55. Improve aquatic biosecurity by providing support to: (i) research on the development of domesticated, genetically improved, specific pathogen-free (SPF), and specific pathogen-resistant (SPR) aquaculture species; and (ii) small-scale hatchery operators and farmers to access healthy broodstock and improve their ability to adopt, at the farm level, the established techniques for aquatic animal health management;</p>
<p>56. Formulate and implement complementary and supportive policies that will: (i) build the capacity of fish farmers and hatchery operators in adopting broodstock and hatchery technologies and innovations; (ii) enhance fish farmers and hatchery operators' access to SPF/SPR broodstock and seeds produced through farmer-friendly broodstock management methods; (iii) foster strong cooperation between the public and private sectors engaged in development and dissemination of quality broodstock and seed stock; (iv) strengthen the capacity of fish farmers' groups, <i>e.g.</i> by empowering fish farmers' groups; and (v) promote development of a skilled workforce for the aquaculture industry;</p>
<p>57. Encourage good and appropriate employment practices in accordance with domestic laws and regulations or relevant international instruments;</p>
<p>58. Raise awareness of the need to develop financial incentives and micro-credit, with national and regional institutional assistance, for the responsible development of aquaculture enterprises and developmental activities that optimize economic returns;</p>
<p>59. Reduce the risk of negative environmental impacts, loss of biodiversity, and disease transmission by regulating the introduction and movement of aquatic organisms in accordance with relevant regional and international guidelines, <i>e.g.</i> the Regional Technical Guidelines on Health Management for the Responsible Movement of Live Aquatic Animals;</p>
<p>60. Continue national efforts to prevent and control serious disease outbreaks by providing government support to: (i) R&D following standard procedures (<i>e.g.</i> OIE standards) in handling emerging diseases and surveillance of transmission of diseases; and (ii) regional initiatives on harmonization of regional disease control standards, disease reporting, and implementation of contingency plans to handle emerging diseases;</p>
<p>61. Further enhance capabilities in the diagnosis and control of aquatic animal diseases through: (i) continued support in development of technology and techniques for disease identification; (ii) promotion of the widespread use of users friendly, field-friendly, rapid and standardized diagnostic tests; and (iii) establishment of regional and inter-regional referral systems, including the designation of reference laboratories and timely access to fish health experts within the region;</p>
<p>62. Strengthen the implementation of regional warning systems on aquatic animal health and diseases to inform other AMSs of relevant epidemiological events and to raise awareness of emerging pathogens that may pose risks. Build emergency preparedness capacity through rapid and timely responses to reduce potential catastrophic consequences of emerging diseases as highlighted by ASEAN Network of Aquatic Animal Health Centres (ANAAHC);</p>
<p>63. Promote the prudent use of legal antibiotics in aquaculture, and monitor the impacts of Antimicrobial Resistance (AMR) on aquatic animals;</p>

64. Improve the efficient use of aquafeeds by regulating the quality of manufactured feed and feed ingredients, and support continued/ applied research for developing suitable alternative protein sources that will reduce the cost and dependence on fish meal and other fish-based products, and subsequently promote regional sharing of information on feed ingredients; encourage the culture of species requiring no or low fish meal content in their feed and application of effective feeding management practices, taking into account the need for cultural and social acceptance of feed ingredients;
65. Undertake risk assessment of the culture of exotic aquatic species, and establish measures to prevent the escape of high risk species and their possible impacts on the natural ecosystem and biodiversity;
66. Improve human resource capabilities for responsible aquaculture through: (i) closer public and private sector collaboration in R&D, paying particular attention to the need for advanced skills in biotechnology and assessment of the efficacy and economics of the use of probiotics and immunostimulants including vaccines; and (ii) effective implementation of aquaculture education and extension services;
67. Formulate and implement national policies and strategies that will enable the aquaculture sector to adopt measures to mitigate the potential impacts of climate change and environmental stressors by providing support to R&D on climate change, and other environmental-related issues to increase resilience, strengthening the overall capacity of various stakeholder groups and fostering cooperation within the aquaculture sector and with other sectors, and developing standard procedures for disaster risks reduction in aquaculture;
68. Apply precautionary approach to safeguard the environment from the over-intensification and expansion of inland, coastal and offshore aquaculture;
69. Conduct risk assessment and R&D related to the use of Genetically Modified Organism (GMO) products in aquaculture (e.g. broodstock and aquafeeds) including food safety issues;
D. Optimal Utilization of Fish and Fishery Products
70. Strengthen support for the development and application of technologies and best practices that optimize the utilization of catches/farmed products, reduce post-harvest losses and wastes, value-add byproducts and valorize fish waste/trimmings in commercial and small-scale fisheries, aquaculture, and processing operations, through improved processing, facilities and infrastructure development, onboard and onshore handling, and storage, distribution and marketing of fish and fishery products;
71. Promote the production of and preserve the diversity of traditional fish products by assisting producers to secure stable supplies of quality raw materials and meet food safety requirements; and improve product identity, nutritive value and marketing. In the process, promote the identity of and other initiatives on local fishery products;
72. Strengthen fish quality and safety management systems that support the competitive position of ASEAN fish and fishery products in the world markets, including possible adoption of cold chain management standards and moving towards ISO22000 and ISO/IEC 17025 accreditation of national fish inspection laboratories; enhance capacity and acknowledge the recognized national laboratories, risk analysis and equivalence agreement, e.g. the Mutual Recognition Agreement (MRA); and promote the implementation of the quality and safety management systems among small and medium enterprises in the AMSs;
73. Encourage relevant control agencies at all levels to apply appropriate legislation and coordinated activities regarding the handling, processing, distribution, storage, marketing, quality, and safety of fish and fishery products;
74. Promote and conduct training programs and develop training materials to upgrade the technical skills and competencies of personnel in the public and private sectors on fisheries post-harvest technologies, and food quality and safety management systems;
75. Raise awareness of the need to develop financial incentives and micro-credit, with national and regional institutional assistance for the responsible development of fisheries and aquaculture enterprises, and developmental activities that optimize economic returns;
76. Encourage good and appropriate employment practices in accordance with domestic laws and regulations or relevant international instruments;

77. Adopt standards and guidelines for handling fish and fishery products, and implement hygienic fish handling onboard fishing vessels and provide training on fish and fishery products handling as part of the requirements for issuance of permits at all levels for fish vessel crews;
E. Fish Trade
78. Strengthen cooperation among AMSs to implement international standards with regards to trade in fish and fishery products within the ASEAN;
79. Implement regional/ ASEAN standards (<i>e.g.</i> ASEAN Good Aquaculture Practices (ASEAN GAqP), ASEAN Shrimp Good Aquaculture Practices (ASEAN Shrimp GAP), and ASEAN Policy Guidelines on Standards and Conformance) applicable for fishery and aquaculture products that are in line with international requirements and applicable to the region; and promote such standards to be acceptable by importing markets;
80. Encourage the implementation of appropriate international standards and strengthen programs relevant to Sanitary and Phytosanitary (SPS) and Technical Barriers to Trade (TBT) measures, R&D, as well as capacity building and awareness raising on fish trade-related issues;
81. Encourage, as appropriate, the development of national laws, rules and regulations on trading of species in accordance with relevant rules of international law;
82. Strengthen cooperation and mechanisms among AMSs to work towards common positions that could be reflected in international fish trade related fora, <i>e.g.</i> World Trade Organization (WTO), Food and Agriculture Organization of the United Nations (FAO)/COFI Sub-committee on Fish Trade, Office International des Epizooties (OIE), <i>Codex Alimentarius</i> Commission (CAC), and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES);
83. Engage the private sector (<i>e.g.</i> ASEAN Seafood Federation) in addressing trade-related issues, and in collaborative efforts to promote and sustain regional and international trade;
84. Assist small-scale producers to comply with standards on safety and quality of fish and fishery products by providing support programs including capacity building;
85. Assist small-scale producers from both capture fisheries and aquaculture in securing and maintaining access to markets at the national, regional and international levels, and in the process, develop marketing systems that are not capital intensive but are accessible for local producers;
86. Apply traceability systems with mechanisms as needed to certify or validate the information for the whole supply chain by harmonizing AMSs' inspection systems in line with international standards and strengthening port inspections process to improve traceability;
87. Encourage and provide guidance to develop/improve branding or eco-labeling of fish and fishery products that demonstrate the eco-friendly and socially acceptable nature of ASEAN products, including organic standards and coordination of Halal requirements;
F. Regional and International Policy Formulation
88. Increase participation and involvement of AMSs in international fora and technical committees, <i>e.g.</i> CITES, CAC, FAO, OIE, Regional Fisheries Bodies (RFBs), and WTO; and promote ASEAN interest, recognizing that fisheries policies of relevance to the ASEAN are increasingly discussed and agreed upon at the global level.