



Standard on ASEAN Good Aquaculture Practices for Shrimp Farming (ASEAN Shrimp GAP)

1. INTRODUCTION

1.1 Purpose and scope of ASEAN Shrimp GAP

The ASEAN Economic Community Blue print (Section A7-para 38) recognizes the importance of developing GAP to enhance intra and extra ASEAN trade and the long term competitiveness of ASEAN food, agriculture and forestry products and commodities.

For fisheries products, shrimp from aquaculture has been selected as the first commodity to develop ASEAN GAP, because of the importance of sustainability of the shrimp production sector and in particular the contributions shrimp makes to socio-economic development in the region. The development of a variety of standards and certification schemes for farmed shrimp products by other organizations, importers and NGOs has created difficulties and resulted in some marketing confusion for the shrimp farming industry of the ASEAN Member States (AMSs).

In support of greater ASEAN harmonization of the aquaculture production sector within the ASEAN region, and shrimp farming in particular, this ASEAN Shrimp GAP has been developed.

The scope of the ASEAN Shrimp GAP is to provide guidance for shrimp farm producers to promote good aquaculture practice for sustainable shrimp farming that is environmentally sound, socially acceptable and economically viable to ensure good quality shrimp products that are safe and suitable for utilization and human consumption.

This ASEAN Shrimp GAP also recognizes the need for alignment with relevant regional and international standards.

The ASEAN Shrimp GAP has been developed taking into account the structure of the region's shrimp production sector, which is currently characterized by a majority of small scale farms. Such small scale farms are characterized by small production volumes, and/or relatively small surface area, mainly without permanent labor, and typically limited technical and financial capacity to support individual certification.

1.2 How ASEAN Shrimp GAP was developed

To develop ASEAN Shrimp GAP, a series of meetings were held involving national and international experts and representatives from public and private sectors of ASEAN member countries.

The First Expert Group Meeting of ASEAN Shrimp Alliance was held in Bangkok during 29-30 September 2009. This expert meeting developed a draft ASEAN Shrimp GAP based on the relevant elements contained in the 2008 draft FAO Technical Guidelines on Aquaculture Certification, particularly the minimum substantive criteria of the Guidelines and the institution and procedural requirements for implementation of certification schemes. In addition, the

Minimum Requirements for GAP for ASEAN Mutual Recognition Agreement (MRA) was also used as a basis for the formulation of the ASEAN Shrimp GAP.

The Second Expert Group Meeting of ASEAN Shrimp Alliance was held in Bangkok during 30-31 March 2010. A revised ASEAN Shrimp GAP incorporating feedback from national consultations and changes from the 2009 draft FAO Technical Guidelines on Aquaculture Certification.

The Third Expert Group Meeting of ASEAN Shrimp Alliance was held in Bangkok during 7-8 March 2011. A revised of the draft ASEAN Shrimp GAP based on the FAO Technical Guidelines on Aquaculture Certification approved during the 29th Session of COFI¹.

1.3 Structure of ASEAN Shrimp GAP

The ASEAN Shrimp GAP consists of four modules covering 1) Food Safety and Quality, 2) Animal Health and Welfare², 3) Environmental Integrity, and 4) Socio-economic Aspects. These modules are aligned to the Minimum Substantive requirements which are listed in the FAO Technical Guidelines on Aquaculture Certification².

2. TERMS AND DEFINITIONS

For the purpose of this ASEAN Shrimp GAP, the following terms and definitions are applied. These terms and definitions are adapted from Technical Consultation on the FAO Technical Guidelines on Aquaculture Certification.

Harmonisation

The establishment, recognition and application of common standards by different members (adapted from Sanitary and Phytosanitary (SPS) agreement)

Shrimp farming

The farming of shrimp involving intervention in the rearing process to enhance production and the individual or corporate ownership of the stock being cultivated. It does not include post harvest activities such as processing, distribution, and retailing.

Small scale shrimp farming.

Shrimp farms with small production volume, and/or relatively small surface area, mainly without permanent labor, and typically lacking technical and financial capacity to support individual certification.

Standard

An approved document that provides for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory under international trade rules. It may also include or deal exclusively with terminology, symbols, packing, and making or labeling requirements as they apply to a product, process or production method. A public sector standard is prepared by the international standardization community, and is always approved by an officially recognized body. A private sector standard is prepared by a private body and is not in all cases approved by an officially recognized body.

¹ The 29th Session of the Committee on Fisheries. 31 Jan-4 Feb, 2011, Rome.

² FAO, 2011. Technical Guidelines for Aquaculture Certification. Rome. 26 pp.

Traceability

The ability to follow the movement of a product of shrimp farming or inputs such as feed and seed, through specified stage (s) of production³.

Veterinary drugs

Any substance or combination of substance presented for treating disease in animals or which may be administered to animals with a view to making a medical diagnosis or to restoring, correcting or modifying physiological functions in animals.

3. ASEAN SHRIMP GAP MODULE**3.1 Food Safety and Quality**

Principle: Shrimp farming will be conducted in a manner that ensures food safety and quality by implementing appropriate national standards and regulations following the FAO/WHO Codex Alimentarius Commission.

Minimum requirements:**1) Banned/non-approved antibacterials, veterinary drugs and/or chemicals**

Banned or unapproved antibacterials, veterinary drugs and/or chemicals should not be used in any stage of shrimp production.

2) Authorized veterinary drugs, chemicals and hazardous materials

Authorized veterinary drugs, chemicals and hazardous materials used in shrimp production should be manufactured, distributed, labeled and stored properly.

Specified dosages and withdrawal periods should be strictly respected.

Hazardous materials of veterinary drugs and chemicals should be disposed of in a proper manner.

3) Probiotics and biological agents

Probiotics and biological agent inputs should be registered with, and approved by, the relevant/competent authorities.

4) Water quality

Water used for shrimp farming should be of a quality suitable for the production of food which is safe for human consumption.

Farms should not be sited where there is a risk of contamination of the water by chemical or biological hazards.

³ This ASEAN standard limits to the scope of the farm level; i.e. pre-production, production, harvesting and handing.

Where needed, proper water treatment should be put in place.

5) Source of broodstock and seed

The source of broodstock and seed for shrimp farming (larvae, post larvae, fry and the fingerlings, etc.) should be such to reduce the risk of carryover of potential human health hazards into the growing stocks.

6) Feed and feed ingredients

Feeds and feed ingredients should not contain unsafe levels of pesticides, biological, chemical (e.g. antibiotics) and physical contaminants.

Feeds should be handled and stored in such a way to prevent spoilage, mould growth and contamination.

Commercially manufactured feeds should be certified and/or come from manufactures registered to the competent authorities and comply with national feed production regulations/quality standards.

7) Design and operation of shrimp farming facilities

Shrimp farming facilities should be designed and operated in ways that prevent shrimp contamination by workers, sewage/toilets, domestic animals, machinery oil/fuel and other possible sources.

Shrimp farms should use good hygienic practices.

8) Harvesting and post-harvest handling at farms

Water and ice used during harvesting and grading should be of quality suitable for the production of food which is safe for human consumption.

Appropriate technique for harvesting and post harvest handling should be applied to minimize contamination and physical damage.

9) Training

Worker should be trained in good hygienic practices to ensure they are aware of their roles and responsibilities for protecting aquaculture products from contamination and deterioration.

10) On-farm traceability

All data related to food safety should be recorded, kept, maintained and made accessible for at least one year.

3.2 Animal Health and Welfare

Principle: Shrimp farming should be conducted in a manner that assures the health and welfare of farmed shrimp, by optimizing health, minimizing stress, reducing shrimp disease risks and

maintaining a healthy culture environment at all phases of the production cycle. Animal welfare applies only in so far as it affects animal health.

Minimum requirements:

1) Movement of live shrimp and shrimp products

Movement of live shrimp and shrimp products should take place in accordance with the relevant provisions in the OIE Aquatic Animal Health Code to prevent introduction or transfer of disease and infectious agents pathogenic to shrimp while avoiding unwarranted sanitary measures.

2) Culture environment

Good feeding, fertilization, water management and stocking practices should be performed to create a sound culture environment and minimize stress of cultured shrimp.

3) Shrimp health management

Shrimp health management programmes should be implemented in compliance with relevant national legislation and regulations taking into account the FAO CCRF Technical Guidelines on Health Management for Responsible Movement of Live Aquatic Animals and relevant OIE Standards.⁴

Routine monitoring of shrimp health should be performed and records of health and corrective actions should be maintained.

On occurrence or an outbreak of any disease of shrimp, farmers should notify and seek advice from the relevant authority or other available expertise.

Where polyculture is conducted, effective measures should be taken to reduce potential disease transmission between culture species.

4) Veterinary drugs and therapeutants

Control of diseases with authorized veterinary drugs should be carried out only on the basis of a proper diagnosis.

Veterinary drugs should be used in a responsible manner and in accordance with applicable national legislation and relevant international agreements.

5) Training

Workers should be trained on good aquatic animal health and welfare management practices to ensure they are aware of their roles and responsibilities in maintaining shrimp health and welfare.

⁴ Aquatic Animal Health Code/Guidelines, World Organization for Animal health (OIE).

6) Record keeping

Records, certificates and test reports of shrimp health should be documented, kept and maintained during culture and for at least one year after harvesting.

3.3 Environmental Integrity

Principle: Shrimp farming should be planned and practiced in an environmentally responsible manner in accordance with applicable national and international rules and regulations. Ensuring environmental integrity requires that environmental impacts of planning, development and operational practices for shrimp farming are addressed.

Minimum requirements:

1) Shrimp farm location and infrastructure

Location of shrimp farm should be in accordance with local and national plans and regulations on environmental protection.

Farm site selection and infrastructure construction should take into consideration the conservation of natural habitat and minimization of disturbance to surrounding environment.

Infrastructure such as for water intake and discharge, access roads, should minimize negative impacts on local communities and other resource users.

2) Responsible use of inputs

Shrimp farms should be operated in economically viable ways that make efficient use of fuel/energy, feeds and water.

Inputs should be used in a responsible manner to minimize negative environmental impacts taking into account;

- (a) Proper storage, handling and application of inputs
- (b) Use of hatchery seed preferably
- (c) Use of exotic species only after positive assessment of Import Risk Analysis followed by appropriate quarantine measures
- (d) No use of shrimp whose genetic material has been altered in a way that does not occur naturally
- (e) Use of appropriate measures to minimize escape of cultured shrimp

3) Responsible management of effluents

Discharges of water, sediment and sludge, from the farm should not cause negative environmental impacts to the surrounding area.

The farm should take appropriate measures to

- (a) Avoid salinization of soil and freshwater resources
- (b) Dispose of solid wastes and garbage in an environmentally sound way
- (c) Dispose of dead shrimp in a hygienic manner especially after disease outbreak

- (d) Apply appropriate treatment of effluent and sludge according to the requirements of national regulations
- (e) Ensure pond effluent follows quality standards as stipulated by the competent Authority

4) Habitat Rehabilitation

Damage caused by previous shrimp farming operations should be rehabilitated on or close to the farm site.

Effective mitigation measures should be taken if the current practices are damaging habitat/environment.

5) Environmental quality parameters

On-farm and off-farm environmental quality indicators should be monitored routinely including with community participation.

6) Record keeping

Records of use of inputs, management of effluents, habitat rehabilitation, and environmental monitoring should be kept and maintained.

3.4 Socio-economic Aspects

Principle: Shrimp farming should be conducted in a socially responsible manner which does not jeopardize the livelihood of shrimp farmers, and local communities. It should be conducted in accordance with national rules and regulations, and where appropriate, relevant International Labour Organization (ILO) guidelines and conventions on labor rights. Shrimp farming contributes to rural development and can enhance benefits and equity in local communities, and alleviate poverty to promote food security. As a consequence, socio-economic aspects should be considered at all stages of shrimp farming planning and operation.

Minimum requirements:

1) Training and safety of the workers

Shrimp farm workers should not be exposed to hazards which may pose danger to their health and safety.

Working conditions in the shrimp farm should be in compliance with local and national legislation.

Safety equipment should be provided to workers engaged in hazardous activities.

General training on safe working practice, accident prevention, risk reduction and safety should be provided to all shrimp farm workers.

2) Welfare of workers

Workers should be treated responsibly and in accordance with national labour rules and regulations and where appropriate relevant international conventions.

Any children working on the farm or involved in its operation should be in accordance with national employment regulations/laws.

Workers should be provided wages, benefits and working conditions according to national laws and regulations.

The use of migrant or non-national labor should be in accordance with the same regulations applicable to nationals.

Training in accident response and emergency procedures should be provided to workers. Information relating to this should be made available and displayed appropriately.

3) Community benefits

Benefits to the local community should be considered at all stages of shrimp farming planning, development and operation.

Shrimp farming should demonstrate social responsibility for the benefits to the local community.

Priority should be given to hire workers from the local community.

4) Management of conflicts with local communities

Shrimp farms should be sited on land with appropriate legal tenure documents.

Shrimp farms should not create restriction on access to public resources and negative impacts on the local community.

Shrimp farming should have mechanisms for communication and engagement with the local community and take positive actions to respond to complaints.