

Technical Guidelines on Aquaculture Certification
Version Adopted by the 29th Session of Committee on Fisheries (COFI)
held in Rome, Italy from 31 January to 04 February 2011

BACKGROUND

1. Global production from aquaculture is growing substantially and provides increasingly significant volumes of fish and other aquatic food for human consumption, a trend that is projected to continue. Although aquaculture growth has potential to meet the growing need for aquatic foods and to contribute to food security, poverty reduction and, more broadly, to achieving sustainable development and the Millennium Development Goals, it is increasingly recognised that improved management of the sector is necessary to achieve this potential.
2. Aquaculture is a highly diverse production sector comprising many different systems, sites, facilities, practices, processes and products, conducted under a wide range of political, social, economic and environmental conditions.
3. Efforts to promote aquaculture development should recognize the special concerns and interests of resource-poor small-scale aquaculture farmers, and encourage corporate social responsibility in engaging small-scale farmers and other small-scale stakeholder in market chains. Certification schemes should not create obstacles to trade or exclude small-scale farmer aquaculture products from market chains.
4. Aquaculture production and trade have increased, but concerns have emerged regarding possible negative impacts on the environment, communities and consumers. Solutions to many of these issues have been identified and addressed. The application of certification in aquaculture is now viewed as a potential market-based tool for minimising potential negative impacts and increasing societal and consumer benefits and confidence in the process of aquaculture production and marketing.
5. Although aquatic animal health and food safety issues of aquaculture have been subjected to certification and international compliance for many years, aspects of animal welfare, environmental issues and socio-economic aspects have not been subjected to compliance or certification.

SCOPE

6. These guidelines provide guidance for the development, organization and implementation of credible aquaculture certification schemes.
7. The guidelines consider a range of issues which should be considered relevant for the certification in aquaculture, including: a) animal health and welfare, b) food safety, c) environmental integrity and d) socio-economic aspects associated with aquaculture.
8. Sustainable development of aquaculture depends on three factors, social, economic and environmental sustainability, all of which have to be addressed proportionally.
9. There is an extensive national and international legal framework in place for various aspects of aquaculture and its value chain, covering such issues as aquatic animal disease control, food safety and conservation of biodiversity. Legislation is particularly strong for processing, export and import of aquatic products. Recognised competent authorities are normally

empowered to verify compliance with mandatory national and international legislation. Other issues such as environmental sustainability and socio-economic aspects may not be covered in such a binding manner and open the opportunity for voluntary certification as a means to demonstrate that a particular aquaculture system is managed responsibly.

10. Credible aquaculture certification schemes consist of three main components: (i) standards; (ii), accreditation, and (iii) certification. The guidelines therefore cover:
- standard setting processes required to develop and review certification standards;
 - accreditation systems needed to provide formal recognition to a qualified body to carry out certification;
 - certification bodies required to verify compliance with certification standards.
11. Developing and implementing a certification scheme may be undertaken by any entity qualified to do so in accordance with the requirements of these guidelines. Such an entity can include, inter alia, a government, an intergovernmental organization, a non-governmental organization, private sector group (e.g. a producer or trade association), a civil society arrangements, or consortium comprising some or all of these different stakeholder groups, as direct users of the guidelines. The guidelines provide information on the institutional and organizational arrangements for aquaculture certification, including governance requirements, particularly to ensure that conflicts of interest are avoided.

TERMS AND DEFINITIONS

12. For the purpose of these international guidelines on aquaculture certification, the following terms and definitions apply. These terms and definitions come from or were derived from existing recognized material (e.g. FAO¹, ISO², Codex Alimentarius³, OIE⁴, FAO Ecolabelling Guidelines, FAO Code of Conduct for Responsible Fisheries (CCRF) and many others), and stakeholder inputs received during the process of developing the guidelines.

Accreditation

Procedure by which a competent authority consistent with applicable law gives formal recognition that a qualified body or person is competent to carry out specific tasks.

(Modified from ISO/IEC Guide 2:1996, 12.11)

Accreditation body

Body that conducts and administers an accreditation system and grants accreditation.

(ISO Guide 2, 17.2)

Accreditation system

System that has its own rules of procedure and management for carrying out accreditation. Accreditation of certification bodies is normally awarded following successful assessment and is followed by appropriate surveillance.

(ISO Guide 2, para. 17.1)

Aquaculture

¹ Food and Agriculture Organization of the United Nations

² International Standards Organization

³ Codex Alimentarius Commission

⁴ World Organisation for Animal Health

The farming of aquatic organisms involving intervention in the rearing process to enhance production and the individual or corporate ownership of the stock being cultivated.

(Modified from the FAO Glossary of Aquaculture -
<http://www.fao.org/fi/glossary/aquaculture/>)

Audit

A systematic and functionally independent examination to determine whether activities and related results comply with planned objectives.

(Codex Alimentarius, Principles for Food Import and Export Certification and Inspection, CAC/GL 20)

Certification

Procedure by which certification body or entity gives written or equivalent assurance that a product, process or service conforms to specified requirements. Certification may be, as appropriate, based on a range of audit activities that may include continuous audit in the production chain.

(Modified from ISO Guide 2, 15.1.2; Principles for Food Import and Export Certification and Inspection, CAC/GL 20; Ecolabelling Guidelines)

Certification body or entity

Competent and recognized body, governmental or non-governmental, that conducts certification and audit activities. A certification body may oversee certification activities carried out on its behalf by other bodies.

(Based on ISO Guide 2, 15.2)

Certification scheme

The processes, systems, procedures and activities related to standard setting, accreditation and implementation of certification. (Adapted from the Report of the First Expert Workshop on Aquaculture Certification held in Bangkok, Thailand. March 2007)

Chain of custody

The set of measures that verify that a certified product originates from a certified aquaculture production chain, and is not mixed with non-certified products. Chain of custody verification measures should cover the tracking/traceability of the product all along the production, processing, distribution and marketing chain, the tracking of documentation, and the quantity concerned.

Form FAO Fisheries Ecolabelling Guidelines

Conformity assessment

Any activity concerned with determining directly or indirectly that relevant requirements are fulfilled.

(Modified from ISO Guide 2, 12.2)

Group certification

Certification for a group of small-scale aquaculture farmers or aquaculture farmer cooperative who has key characteristics in common in term of nature of production, proximity of farm location, common marketing as a group. The group has an Internal Control System to ensure compliance with the standards by all members of the group.

Small-scale aquaculture

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

(Adapted from the Report of the First Expert Workshop on Aquaculture Certification held in Bangkok, Thailand. March 2007)

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, packaging, marking or labelling 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 recognised body. A private sector standard is prepared by a private body and is not in all cases approved by an officially recognised body.

(Based on TBT agreement, Annex 1, para. 2)

Standard setting body, organization or entity

Organization or entity that has recognized activities in standard setting.

(Based on ISO Guide 2, para. 4.3)

Third party

Person or body that is recognized as being independent of the parties involved, as concerns the issue in question, and involves no conflict of interest.

(ISO/IEC Guide 2:1996; Ecolabelling Guidelines)

Traceability

The ability to follow the movement of a product of aquaculture or inputs such as feed and seed, through specified stage(s) of production, processing and distribution. (Adapted from Codex)

Unit of certification

The scale or extent of the aquaculture operation(s) assessed and monitored for compliance. The unit of certification could consist of a single farm, production unit or other aquaculture facility. The certification unit could also consist of a group or cluster of farms that should be assessed and monitored collectively.

Veterinary Medicinal Products

Any substance or combination of substances presented for treating or preventing 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. (EU Directive 2001/82/EC)

APPLICATION

13. These guidelines for voluntary certification schemes are to be interpreted and applied in their entirety in a manner consistent with national laws and regulations and, where they exist, international agreements.
14. Entities responsible for new and existing aquaculture certification schemes should undertake to assess, verify and document that these certification schemes have been developed and are being implemented in accordance with the guidelines. If there are deficiencies in the way an existing scheme was developed and/or in how it is being implemented, the entities responsible for the functions (i.e. standard setting, accreditation, or certification) should act accordingly to define and implement a corrective action plan. When this is completed, the entities should verify and document that the scheme is in accordance with the guidelines. There should not be any conflict of interest among the entities involved.
15. If the entities responsible for a private aquaculture certification scheme do not provide credible assurance that the scheme has been developed and is being implemented in

accordance with the guidelines, stakeholder groups (especially those being certified under the scheme) may use these guidelines to have the scheme evaluated by a body with appropriate expertise or undertake such evaluation themselves. See chapter on Institutional and Procedural Requirements for details.

16. The evaluation would use these guidelines to assess whether a certification scheme is developed and implemented in accordance with the guidelines regarding, *inter alia*:
- whether the principles have been adhered to;
 - whether the special considerations have been addressed;
 - whether the objectives of the scheme and issue areas have been addressed in accordance with the appropriate minimum substantive requirements; and
 - whether the standard setting, accreditation and/or certification have been developed and implemented in accordance with the institutional and procedural requirements.

PRINCIPLES

17. Aquaculture certification schemes:

- a. should be based on international standards or guidelines, where applicable, and must recognise the sovereign rights of States and comply with relevant local, national and international laws and regulations. They must be consistent with relevant international agreements, conventions, standards, codes of practice and guidelines.
- b. should recognise that any person or entity undertaking aquaculture activities is obliged to comply with all national laws and regulations.
- c. should be developed based on the best scientific evidence available, also taking into account traditional knowledge, provided that its validity can be objectively verified.
- d. should be developed and implemented in a transparent manner and should ensure that there is no conflict of interest among the entities that are responsible for standard setting, accreditation, and certification. These entities should facilitate mutual recognition, strive to achieve harmonization and recognise equivalence, based on the requirements and criteria outlined in these guidelines.
- e. should be open to scrutiny by consumers, civil society, and their respective organisations and other interested parties, while respecting legitimate concerns to preserve confidentiality.
- f. should be credible and robust, be fully effective in achieving their designated objectives.
- g. should promote responsible aquaculture during production as outlined in the FAO Code of Conduct for Responsible Fisheries, in particular the Article 9, Aquaculture Development.
- h. should include adequate procedures for maintaining chain of custody and traceability of certified aquaculture products and processes.

- i. should establish clear accountability for all involved parties, including the owners of certification schemes, accreditation bodies and the certification bodies, in conformity with international requirements, as necessary.
- j. should not discriminate against any group of farmers practising responsible aquaculture based on scale, intensity of production, or technology; promote cooperation among certification bodies, farmers and traders; incorporate reliable, independent auditing and verification procedures; and should be cost-effective to ensure inclusive participation of responsible farmers.
- k. should strive to encourage responsible trade, consistent with the FAO Technical Guidelines on Responsible Fish Trade, and should provide the opportunity for aquaculture products to enter international markets without obstacles to trade.
- l. should ensure special considerations are provided to address the interests of resource- poor small-scale farmers, especially the financial costs and benefits of participation, without compromising food safety.
- m. These aquaculture certification guidelines should recognize the special needs of farmers and governments in developing countries. These guidelines should also recognize the special role of FAO in assisting developing countries in devising an implementation framework which is both attainable and measurable. Similarly, FAO should facilitate the assessment of the capacity of farmers and governments to meet the proposed requirements of aquaculture certification schemes, and to develop realistic expectations with regard to the farmers and governments meeting these requirements.

MINIMUM SUBSTANTIVE CRITERIA

18. Minimum substantive criteria for developing aquaculture certification standards are provided in this section for a) animal health and welfare, b) food safety, c) environmental integrity and d) socio-economic aspects. The extent to which a certification scheme seeks to address the issues depends on the objectives of the scheme, which should be explicitly and transparently stated by the scheme. Development of certification schemes should consider the importance of being able to measure performance of aquaculture systems and practices, and the ability to assess conformity with certification standards.

Animal health and welfare⁵

19. Aquaculture activities should be conducted in a manner that assures the health and welfare of farmed aquatic animals, by optimizing health through minimizing stress, reducing aquatic animal disease risks and maintaining a healthy culture environment at all phases of the production cycle. Guidelines and standards set by OIE should be the specific normative basis.

⁵ For the purpose of these guidelines, reference to animal welfare applies only insofar as it affects animal health consistent with current and future OIE standards.

Minimum substantive criteria for addressing aquatic animal health and welfare in aquaculture certification schemes:

20. Aquaculture operations should implement aquatic animal health management programmes set up 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.
21. Movement of aquatic animals, animal genetic material and animal products should take place in accordance with the relevant provisions in the OIE Aquatic Animal Health Code to prevent introduction or transfer of diseases and infectious agents pathogenic to aquatic animals while avoiding unwarranted sanitary measures.
22. A culture environment should be maintained at all phases of the production cycle adapted to the species raised, to benefit aquatic animal health and welfare, and reduce the risks of introduction and spread of aquatic animal diseases. In particular by
 - Allowing for quarantining of stock where appropriate;
 - Routine monitoring of stock and environmental conditions for early detection of aquatic animal health problems; and
 - Implementation of management practices that reduce the likelihood of disease transmission within and between aquaculture facilities and natural aquatic fauna, and reduce stress on animals for the purpose of optimizing health.
23. Veterinary medicines should be used in responsible manner and in accordance with applicable national legislation or relevant international agreements that ensure effectiveness, safety of public and animal health and protection of the environment.
24. Use of species in polyculture or integrated multitrophic aquaculture should be carefully considered in order to reduce potential disease transmission between cultured species.
25. Aquaculture animals should be kept under farming conditions suitable for the species concerned, in particular taking into account water temperature and quality.
26. 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 aquatic animal health and welfare in aquaculture.

Food safety

27. Aquaculture activities should be conducted in a manner that ensures food safety by implementing appropriate national or international standards and regulations including those defined by FAO/WHO *Codex Alimentarius*. Although *Codex Alimentarius* covers both safety and quality issues concerning aquatic products, for the purpose of these guidelines, quality aspects are not currently addressed in detail.

Minimum substantive criteria for addressing food safety in aquaculture certification schemes:

28. Aquaculture facilities should be located in areas where the risk of contamination is minimized and where sources of pollution can be controlled or mitigated.
29. Where feed is used, aquaculture operations should include procedures for avoiding feed contamination in compliance with national regulations or as determined by internationally agreed standards. Aquaculture operations should use feeds and feed ingredients which do not contain unsafe levels of pesticides, biological, chemical and physical contaminants and or other adulterated substances. Feed which is manufactured or prepared on the farm should contain only substances permitted by the national competent authorities.
30. All veterinary drugs and chemicals for use in aquaculture shall comply with national regulations , as well as international guidelines. Wherever applicable, veterinary drugs and chemicals should be registered with the competent national authority. Veterinary drugs should be scheduled (classified). Control of diseases with veterinary drugs and antimicrobials should be carried out only on the basis of an accurate diagnosis and knowledge that the drug is effective for control or treatment of a specific disease. In some classifications, veterinary drugs may only be prescribed and distributed by personnel authorized under national regulations. All veterinary drugs and chemicals or medicated feeds should be used according to the instructions of the manufacturer or other competent authority, with particular attention to withdrawal periods. Banned non-registered and/or non permitted antimicrobial agents, veterinary drugs and/or chemicals must not be used in aquaculture production, transportation or product processing. Prophylactic use of veterinary medicinal products, particularly antimicrobial agents⁶, should not take place.
31. Water used for aquaculture should be of a quality suitable for the production of food which is safe for human consumption. Waste water should not be used in aquaculture. If wastewater is used, the WHO guidelines for the safe use of wastewater and excreta in aquaculture should be followed.
32. The source of broodstock and seed for culture (larvae, post larvae, fry and fingerling, etc.) should be such to reduce the risk of carryover of potential human health hazards (e.g. antibiotics, parasites, etc.) into the growing stocks.
33. Traceability and record-keeping of farming activities and inputs which impact food safety should be ensured by documenting, *inter alia*:
- the source of inputs such as feed, seed, veterinary drugs and antibacterials, additives, chemicals; and
 - type, concentration, dosage, method of administration and withdrawal times of chemicals, veterinary drugs and antibacterials and the rationale for their use.
34. Aquaculture facilities and operations should maintain good culture and hygienic conditions, including:
- Good hygiene practices in the farm surroundings should be applied aiming at minimizing contamination of growing water, particularly from waste materials or faecal matter from animals or humans;
 - Good Aquaculture Practices should be applied during culture to ensure good hygienic culture conditions and safety and quality of aquaculture produce;

⁶ Antimicrobial agents do not include vaccines.

- Farms should institute a pest control programme, so that rodents, birds and other wild and domesticated animals are controlled, especially around feed storage areas;
 - Farm grounds should be well maintained to reduce or eliminate food and feed safety hazards; and
 - Appropriate techniques for harvesting, storing and transportation of aquaculture products should be applied to minimize contamination and physical damage.
35. Identification, classification, integrated management and monitoring programmes should be implemented in bivalve molluscs growing areas to prevent microbiological, chemical and reduce biotoxin contamination. Relaying and depuration of bivalve molluscs to remove microbial contamination should be carried in accordance with the requirements of Codex.
36. Workers 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.

Environmental integrity

37. Aquaculture should be planned and practiced in an environmentally responsible manner, in accordance with appropriate local, national and international laws and regulations.
38. Aquaculture certification schemes should encourage restoration of habitats and sites damaged by previous uses in aquaculture.
39. Aquaculture can impact on the environment and aquaculture certification schemes should ensure these impacts are identified and adverse impacts are managed or mitigated to an acceptable level in accordance with local and national laws. Whenever possible, native species should be used for culture and measures should be taken to minimise unintentional release or escape of cultured species into natural environments.
40. Management practices that address environmental impacts of aquaculture differ substantially for different types of scale of aquaculture and for different aquaculture farming systems. Certification schemes should not be overly prescriptive, but set measurable benchmarks that encourage improvement and innovation in environmental performance of aquaculture.
41. Certification schemes may consider application of the “precautionary approach” in accordance with the relevant provisions of the Code of Conduct for Responsible Fisheries.
42. In undertaking risk analysis, risks should be addressed through a suitable scientific method of assessing the likelihood of events and the magnitude of impacts, and take into account relevant uncertainties. Appropriate reference points should be determined and remedial actions taken if reference points are approached or exceeded.
43. Certification schemes should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment⁷.

⁷ Based on the principle 16 of the Rio Declaration on Environment and Development, June 1992.

Minimum substantive criteria for addressing environmental integrity in aquaculture certification schemes:

44. Environmental impact assessments should be conducted, according to national legislation, prior to approval of establishment of aquaculture operations.
45. Regular monitoring of on-farm and off-farm environmental quality should be carried out, combined with good record keeping and use of appropriate methodologies.
46. Evaluation and mitigation of the adverse impacts on surrounding natural ecosystems, including fauna, flora and habitats should be carried out.
47. Measures should be adopted to promote efficient water management and use as well as proper management of effluents to reduce impacts on surrounding land and water resources should be adopted.
48. Where possible, hatchery produced seed should be used for culture. When wild seeds are used, they should be collected using responsible practices.
49. Exotic species are to be used only when they pose an acceptable level of risk to the natural environment, biodiversity and ecosystem health.
50. With reference to paragraph 9.3.1 of the Code of Conduct for Responsible Fisheries, where genetic material of an aquatic organism has been altered in a way that does not occur naturally, science-based risk assessment should be used to address possible risks on a case-by-case basis. Induction of polyploidy is not included.
51. Infrastructure construction and waste disposal should be conducted responsibly.
52. Feeds, feed additives, chemicals, veterinary drugs including antimicrobials, manure and fertilizer should be used responsibly to minimize their adverse impacts on the environment and to promote economic viability.

Socio-economic aspects

53. Aquaculture should be conducted in a socially responsible manner, within national rules and regulations, having regard to the ILO-convention on labour rights, not jeopardizing the livelihood of aquaculture workers, and local communities. Aquaculture contributes to rural development, enhances benefits and equity in local communities, alleviates poverty and promotes food security. As a result, socio-economic issues should be considered at all stages of aquaculture planning, development and operation.
54. The importance of corporate social responsibility from aquaculture to local communities should be recognized.

Minimum substantive criteria for addressing socio-economic aspects in aquaculture certification schemes:

55. Workers should be treated responsibly and in accordance with national labour rules and regulations and, where appropriate, relevant ILO conventions.
56. Workers should be paid wages and provided benefits and working conditions according to national laws and regulations.
57. Child labour should not be used in a manner inconsistent with ILO conventions and international standards.

INSTITUTIONAL AND PROCEDURAL REQUIREMENTS

58. The institutional and procedural requirements for establishing and implementing credible aquaculture certification schemes are presented here in four parts: 1) Governance, 2) Standard setting, 3) Accreditation and 4) Certification.
59. The sections on Standards setting, Accreditation, and Certification are each subdivided into four sections: i) Purpose, ii) Normative references, iii) Functions and structure and iv) Requirements. The requirements are considered the minimum requirements that a body or entity should meet to be recognized as credible and reliable in executing its duties and responsibilities. The principles provided in this document apply equally to procedural and institutional aspects of certification schemes for aquaculture.
60. The guidance presented here draws on other internationally accepted guidance, especially those produced by the International Organization for Standardization (ISO) and the International Labour Organization (ILO) , and the Codex Alimentarius Commission (CAC). Any certification scheme implemented pursuant to these guidelines must conform with a country's WTO commitments, particularly those under the WTO Agreement on Technical Barriers to Trade and the Agreement on the Application of Sanitary and Phyto-Sanitary Measures.

Governance

61. The procedures used and institutions involved in establishing and implementing a certification scheme should be transparent, credible and robust with good governance.
62. There are various options for the geographical range of a scheme. It could be national, regional or international in scope.
63. It is essential that the owner of a private or non-governmental certification scheme is not directly engaged in its operational affairs, i.e. undertaking accreditation or certification, to avoid conflicts of interest. The owner or developer of a private or non-governmental certification scheme must have a formal arrangement with a separate independent specialized accreditation body or entity to take on the task of accreditation of certification bodies on its behalf. The accreditation body or entity could be private, public or an autonomous body governed by national rules and regulations.
64. The owner or developer of a certification scheme should have clear written procedures to guide the decision-making process.

65. Certification must be handled by an organization (certification body or entity) that has been specifically set up for this purpose. It could be government, public, non-governmental or private. The certification scheme should lay down rules and regulations under which the certification body or entity is required to operate. The certification body or entity may be involved in certification for one certification scheme for one specific sector (e.g. aquaculture) or may be involved with a number of sectors or schemes.

Standard setting

Purpose

66. Standards provide the necessary requirements, the quantitative and qualitative criteria and the indicators for certification of aquaculture. Standards should reflect the objectives, results and outcomes that are being pursued through the certification scheme to address animal health and welfare, food safety, environmental integrity and/or socio-economic aspects in aquaculture.

Normative basis

67. The normative basis for development of standards includes the following existing documented procedures:
- *WTO Agreement on technical barriers to trade*
 - *WTO Agreement on the application of sanitary and phytosanitary measures*
 - *Codex guidelines on food import and export inspection and certification systems*
 - *ISO/IEC Guide 59. Code of good practice for standardization. 1994*
 - *ISO/IEC 22003:2007 Food safety management systems: Requirements for bodies providing audit and certification of food safety management systems*
 - *ISEAL. ISEAL Code of Good Practice for Setting Social and Environmental Standards. 2006*
 - *OIE Aquatic Animal Health Code*
 - *International Council for the Exploration of the Sea (ICES) Code of Practice on the Introductions and Transfers of Marine Organisms*
 - *Code of Practice on the Introductions and Transfers of Marine Organisms*
 - *ISO/IEC 22000:2005 Food safety management systems- Requirements for any organization in the food chain*
 - *ISO/TS 2004:2005 Food safety management systems - Guidance on the application of ISO 22000:2005*
 - *ISO 22005:2007 Traceability in the feed and food chain - General principles and basic requirements for system design and implementation*
 - *ISO/IEC 16665 Water quality - Guidelines for quantitative sampling and sample processing of marine soft-bottom macrofauna*
 - *ISO 23893-1:2007 Water quality - Biochemical and physiological measurements on fish - Part 1: Sampling of fish, handling and preservation of samples*
 - *ISO/IEC 17021:2006 Conformity assessment - Requirements for bodies providing audit and certification of management systems*
 - *ISO/IEC 17065*

- ISO/IEC 22003:2007 *Food safety management systems: Requirements for bodies providing audit and certification of food safety management systems*
- ISO/IEC 17021. *Management Systems certification*
- ISO/IEC 22003. *Food safety management systems*
- ISO/IEC 17025. *Laboratory testing*
- ISO/IEC 22005. *Chain of Custody*

Functions and organizational structure

68. Standard setting encompasses the tasks of developing, monitoring, assessing, reviewing, and revising standards. These tasks can be fulfilled through a specialized standard setting body or entity, or through another suitable entity and be either a government or non government entity. The standard setting body or entity is also responsible for ensuring appropriate communications and outreach regarding the standard and the standard setting process, and ensuring that the standard and associated documents are available.
69. The organizational structure of a standard setting body or entity should include, *inter alia*, a technical committee of independent experts and a consultation forum with relevant stakeholder representatives whose mandates are clearly established.
70. A standard setting body or entity must be a legal entity, with sufficient resources to support its standard setting function. The process should include adequate stakeholder representation. Governance, administration and other support staff should be free of conflicts of interest.

Requirements

Transparency

71. Transparency in the setting of standards is essential. Transparency helps facilitate consistency with relevant national and international standards and facilitates access to information and records pertaining to certification and participation of all interested parties, including those of developing countries and countries in transition, particularly small-scale stakeholders.
72. The standard setting body or entity should carry out activities in a transparent fashion, following written rules of procedure. Procedural rules should contain a mechanism for the impartial resolution of any substantive or procedural disputes about the handling of standard setting matters.
73. On a regular basis as appropriate, the standard setting body or entity should publicize its work programme as widely as possible.
74. On the request of any interested party, the standards setting body or entity should provide, or arrange to provide, within reasonable time, a copy of its standard setting procedures, most recent work programme, draft standards or final standards.
75. Based on the needs of users, a standards setting body or entity should translate the standard setting procedures, most recent work programme, draft standards or final standards into appropriate languages.

Participation by interested parties

76. The standards setting body or entity should strive to achieve balanced participation by independent technical experts and by representatives of interested parties in the standards development, revision and approval process. Interested parties can include, *inter alia*, governments, non-governmental organizations, private sector groups, civil society arrangements, representatives of the aquaculture industry (input suppliers, producers, processors, traders and retailers), the scientific community, community groups and various consortia, as indirect users of the guidelines.
77. Interested parties should be associated in the standard setting process through an appropriate consultation forum or be made aware of appropriate alternative mechanisms by which they can participate. Where more than one forum is designated, appropriate coordination and communication requirements should be determined and provided.

Content and comparable systems

78. The standards setting process should seek to:
- include international reference standards in animal health and welfare, food safety, environmental integrity and socio-economic aspects;
 - identify and review comparable systems;
 - identify research needs and knowledge gaps;
 - include requirements of relevant international agreements; and
 - encourage mutual recognition among certification schemes.

Notification provisions

79. Before adopting a standard(s), the standards setting body or entity should allow a period of an appropriate duration for the submission of comments on the draft standards by interested parties. No later than the start of the comment period, the standard setting body or entity should publish a notice announcing the period for commenting in a national or, as appropriate, regional or international publication of standardization activities and/or on the Internet.
80. In further processing of the standards, the standards setting body or entity should take into account the comments received during the period for commenting.

Keeping of records

81. Proper records of standards and development activity should be prepared and maintained. The standards setting organization or entity should identify a central focal point for standards-related enquiries and for submission of comments. Contact information for this focal point should be made easily available including on the Internet.

Review and revision of standards and of standards setting procedures

82. Standards should be reviewed at regular published intervals in consultation with appropriate stakeholders and, if appropriate, revised following such reviews. Certified aquaculture operations should be given an appropriate period to come into compliance with the revised standards.

83. Proposals for revisions can be submitted by any interested party and should be considered by the standard setting body or entity through a consistent and transparent process.
84. The procedural and methodological approach for setting standards should also be updated in the light of scientific and technical progress and of the experience gained in the application of the standard in aquaculture.

Validation of standards

85. In developing and revising standards, an appropriate procedure should be put in place to corroborate the standard vis-à-vis the minimum requirements for aquaculture as laid out in these guidelines. Validation is also required to ensure that standards:
- are effective in meeting the certification goals, meaningful, objective and auditable;
 - do not contain criteria or requirements that could cause unnecessary barriers to trade or mislead the aquaculture community; and
 - take into consideration practicality and cost of standards development and maintenance.

Accreditation

Purpose

86. Accreditation provides assurance that certification bodies responsible for conducting conformity assessments according to standards for aquaculture in relation to animal health and welfare, food safety, environmental integrity and socio-economic aspects are competent to carry out such tasks. Accreditation provides assurance that the certification body or entity is able to assess and certify that a specific aquaculture product, method or process comes from a certified aquaculture operation and conforms to the standards.

Normative reference

- ISO/IEC 17011. *Conformity assessment - General requirements for accreditation bodies accrediting conformity assessment bodies.*

Functions and structure

87. Accreditation is an independent assessment of the competence of the certification body or entity. The task of granting accreditation following successful assessment should be undertaken by competent accreditation bodies. Accreditation is carried out on the basis of a system that has its own rules and management, i.e. an accreditation system.
88. An accreditation body or entity must be a legal entity, with sufficient resources to support its functions in undertaking accreditation. The governance structure should include appropriate stakeholder representation. Governance, administration and other support staff should be free of conflicts of interest. In order to be recognized as competent and reliable in undertaking the assessment of certification bodies or entities in a non-discriminatory, impartial and accurate manner, an accreditation body or entity should fulfill, *inter alia*, the following requirements.

Requirements

Non-discrimination

89. Access to the services of the accreditation body or entity should be open to all certification entities irrespective of their location. Access should not be conditional upon the size of the applicant body or membership in any association or group, nor should accreditation be conditional upon the number of certification bodies already accredited.
90. Full recognition should be given to the special circumstances and requirements of certification bodies in developing countries and countries in transition including financial and technical assistance, technology transfer, and training and scientific cooperation, without compromising the integrity of the accreditation and certification process.

Independence, impartiality and transparency

91. The accreditation body or entity should be independent and impartial. In order to be impartial and independent, the accreditation body should:
- be transparent about its organizational structure and the financial and other kinds of support it receives from public or private entities;
 - be independent from vested interests, together with its senior executive and staff;
 - be free from any commercial, financial and other pressures that might influence the results of the accreditation process;
 - ensure that decision on accreditation is taken by a person(s) who has(ve) not participated in certification (conformity assessment); and
 - not delegate authority for granting, maintaining, extending, reducing, suspending or withdrawing accreditation to an outside person or body.

Human and financial resources

92. The accreditation body or entity should have adequate financial resources and stability for the operation of an accreditation system and should maintain appropriate arrangements to cover liabilities arising from its operations and/or activities.
93. The accreditation body or entity should employ a sufficient number of personnel having the necessary training, technical knowledge and experience for performing accreditation functions in aquaculture.
94. Information on the relevant qualifications, training and experience of each member of the personnel involved in the accreditation process should be maintained by the accreditation body or entity. Record of training and experience should be kept up to date.
95. When an accreditation body or entity decides to subcontract work related to accreditation other than work exempted in paragraph 91 to an external body or person, the requirements for such an external body should be no less than for the accreditation body or entity itself. A properly documented contractual or equivalent agreement covering the arrangements including confidentiality and conflict of interests, should be drawn up.

Accountability and reporting

96. The accreditation body or entity should be a legal entity and should have clear and effective procedures for handling applications for accreditation procedures. In particular, the accreditation body or entity should maintain and provide to the applicants and accredited entities:
- a detailed description of the assessment and accreditation procedure;
 - the documents containing the requirements for accreditation; and
 - the documents describing the rights and duties of accredited bodies.
97. A properly documented contractual or equivalent agreement describing the responsibilities of each party should be drafted.
98. The accreditation body or entity should have:
- defined objectives and commitment to quality;
 - procedures and instructions for quality documented in a quality manual; and
 - an established effective and appropriate system for quality.
99. The accreditation body or entity should conduct periodic internal audits covering all procedures in a planned and systematic manner to verify that the accreditation system is implemented and effective.
100. The accreditation body or entity may receive external audits on relevant aspects. The results of the audit should be accessible by the public.
101. Qualified personnel, attached to the accreditation body or entity, should be nominated by the accreditation body or entity to conduct the assessment against all applicable accreditation requirements.
102. Personnel nominated for the assessments should provide the accreditation body or entity with a report of its findings as to the conformity of the body assessed to all of the accreditation requirements. The report should provide sufficiently comprehensive information such as:
- the qualification, experience and authority of the staff encountered;
 - the adequacy of the internal organization and procedures adopted by the certification body or entity to give confidence in its services; and
 - the actions taken to correct identified nonconformities including, where applicable, those identified at previous assessments.
103. The accreditation body or entity should have policy and procedures for retaining records of what happened during the assessment visit for a period consistent with its contractual, legal or other obligations. The records should demonstrate that the accreditation procedures have been effectively fulfilled. The records should be identified, managed and disposed of in such a way as to ensure the integrity of the process and confidentiality of the information.

Resolution of complaints concerning accreditation of certifying bodies

104. The accreditation body or entity should have a written policy and procedures for dealing with any complaints in relation to any aspect of the accreditation or de-accreditation of certifying bodies.
105. These procedures should include establishment, on an *ad hoc* basis as appropriate, of an independent and impartial committee to respond to a complaint. The committee should seek to resolve any complaints through discussion or conciliation. If this is not possible, the committee should provide a written ruling to the accreditation body or entity, which should transmit it to the other party or parties involved.
106. The accreditation body or entity should:
- keep a record of all complaints, and remedial actions relative to accreditation;
 - take appropriate corrective and preventive actions;
 - assess the effectiveness of remedial actions; and
 - safeguard confidentiality of information obtained during the investigation and resolution of complaints.
107. Information on procedures for handling complaints concerning accreditation should be made publicly available.
108. The above does not exclude recourse to other forms of legal and administrative processes as provided for in national legislation or international law.

Confidentiality

109. The accreditation body or entity should have adequate arrangements, consistent with applicable laws, to safeguard confidentiality of the information obtained in the course of its accreditation activities at all levels of its organization, including committees and external bodies acting on its behalf.
110. Where the law requires information to be disclosed to a third party, the body should be informed of the information provided, as permitted by the law. Otherwise information about an applicant certification body or entity should not be disclosed to a third party without a written consent of the body.

Maintenance and extension of accreditation

111. The accreditation body or entity should have arrangements to define the period of accreditation of a certifying body or entity, with clear monitoring procedures.
112. The accreditation body or entity should have arrangements to ensure that an accredited certification body or entity informs it without delay of changes in any aspects of its status or operation.
113. The accreditation body or entity should have procedures to conduct reassessments in the event of changes significantly affecting the capabilities or scope of activities of the accredited body or entity or the conformance with any other relevant criteria of competence specified by the accreditation body or entity.

114. Accreditation should be re-assessed at sufficiently close intervals or as necessary to verify that the accredited certification body or entity continues to comply with the accreditation requirements. The period for carrying out reassessments should not exceed five years.

Suspension and withdrawal of accreditation

115. The accreditation body or entity should specify the conditions under which accreditation may be suspended or withdrawn, partially or in total, for all or part of the scope of accreditation.

Change in the accreditation requirements

116. The accreditation body or entity should give due notice of any changes it intends to make in its requirements for accreditation to all stakeholders involved.
117. It should take account of views expressed by interested parties before deciding on the precise form and effective date of the changes.
118. Following a decision on and publication of the changes, it should verify that each accredited body or entity carries out any necessary adjustments to its procedures within such time as, in the opinion of the accreditation body or entity, is reasonable.
119. Special considerations should be given to accredited bodies in developing countries and countries in transition, without compromising the integrity of the certification process.

Proprietor or licensee of an accreditation symbol, label or a logo

120. The provisions on the use and control of a certification claim, symbol, label or logo are addressed in the following section on certification.
121. The accreditation body or entity that is proprietor or licensee of a symbol or logo, intended for use under its accreditation programme, should have documented procedures describing its use.
122. The accreditation body or entity should not allow use of its accreditation mark or logo in any way that implies that the accreditation body or entity itself approved a product, service or system certified by a certification body or entity.
123. The accreditation body or entity should take suitable action to deal with incorrect references to the accreditation system or misleading use of accreditation logos found in advertisements, catalogues, etc.

Certification

Purpose

124. Certification is the procedure by which a body or entity gives written or equivalent assurance that the aquaculture operation or activity under consideration conforms to the relevant aquaculture certification standards. Impartial certification based on an objective assessment of

relevant factors provides assurance to buyers and consumers that a certified aquaculture product comes from an aquaculture operation that conforms to the certification standards.

Scope

125. Certification could include an aquaculture activity e.g. an aquaculture operation of the chain of custody of a product. Separate certificates may be issued for the aquaculture activity and the chain of custody of a product.

126. Two types of assessments are required for certification:

- Conformity assessment: Whether an aquaculture activity conforms to the standards and related certification criteria.
- Chain of custody assessment: Whether adequate measures are in place to identify and differentiate products from a certified aquaculture operation including production and subsequent stages of processing, distribution and marketing (traceability).

127. Aquaculture products that are labelled to indicate to the buyer and consumer of their origin from a certified aquaculture operation and chain of custody require both types of assessments and certificates.

Normative references

- ISO Guide 62, General Requirements for bodies operating assessment and certification/registration of quality systems. 1996
- ISO/IEC Guide 65, General requirements for bodies operating product certification systems. 1996
- WTO. Agreement on Technical Barriers to Trade
- ISO/IEC 17021. Management Systems certification
- ISO/IEC 22003. Food safety management systems
- ISO/IEC 17025. Laboratory testing
- ISO/IEC 22005. Chain of Custody
- OIE Aquatic Animal Health Code/Guidelines
- TBT Articles 5-6. Conformity Assessment

Functions and structure

128. The tasks of carrying out conformity and chain of custody assessments should be undertaken by accredited certification bodies. In order to be recognized as competent and reliable in undertaking the assessments in a non-discriminatory, impartial and accurate manner, a certification body or entity should fulfill the following requirements.

Requirements

Independence and impartiality

129. The certification body or entity should be legally and financially independent from the owner of the certification scheme and should not have any conflict of interest.

130. The certification body or entity and its assessment and certifying staff, whether directly employed by the certification body or entity or sub-contracted by it, should have no commercial, financial or any other interest in the aquaculture operation or chain of custody to be assessed other than for its certification services.
131. The certification body or entity should ensure that the personnel who conduct assessment in view of certification are different from the personnel which grant the certificate.
132. The certifying body or entity should not delegate authority for granting, maintaining, extending, reducing, suspending or withdrawing certification to an outside person or body.

Non-discrimination

133. Access to the services of the certification body or entity should be open to all types of aquaculture operations.
134. Access to the certification body or entity should not be conditional upon the size or scale of the aquaculture operations nor should certification be conditional upon the number of aquaculture operations already certified.

Human and financial resources

135. The certification body or entity should have adequate financial resources and stability for its conduct and should maintain appropriate arrangements to cover liabilities arising from its operations and/or activities.
136. The certification body or entity should employ a sufficient number of personnel having the necessary qualifications, training, technical knowledge, education and experience for performing conformity and/or chain of custody assessments in aquaculture.
137. Information on the relevant qualifications, training and experience of each member of the personnel involved in the certification process should be maintained by the certification body or entity. Record of training and experience should be kept up to date.
138. When a certification body or entity decides to sub-contract work related to certification, to an outside body or person other than work exempted in paragraph 132, the requirements for such an external body should be no less than for the certification body or entity itself. A properly documented contractual or equivalent agreement, covering the arrangements including confidentiality and conflict of interests, should be drawn up. A sub-contractor should be periodically audited and evaluated.

Accountability and reporting

139. The certification body or entity should be a legal entity and have clear and effective procedures for handling applications for certification of aquaculture operations and/or chains of custody for aquaculture products. In particular, the certification body or entity should maintain and provide to the applicants and certified entities:
- a detailed description of the assessment and certification procedure;

- the documents containing the requirements for certification; and
 - the documents describing the rights and duties of certified entities.
140. A properly documented contractual or equivalent agreement describing the rights and duties of each party should be drafted between the certification body or entity and its clients.
141. The certification body or entity should conduct periodic internal audits covering all procedures in a planned and systematic manner to verify that the certification system is implemented and effective.
142. The certification body or entity may receive external audits on relevant aspects. The results of the audits should be accessible by the public.
143. The certification body or entity should have a policy and procedures for retaining records for a period consistent with its contractual, legal or other obligations. The records should demonstrate that the certification procedures have been effectively fulfilled, particularly with respect to application forms, assessment reports and other documents relating to granting, maintaining, extending, reducing, suspending or withdrawing certification. The records should be identified, managed and disposed of in such a way as to ensure the integrity of the process and confidentiality of the information. The certification body or entity should ensure that any changes to the agreed procedures are notified to all affected parties.
144. The certification body or entity should make appropriate, non-confidential documents available on request.

Certification fees

145. If the certification body or entity charges fees, it should maintain a written fee structure for applicants and certified aquaculture operations that should be available on request. In establishing the fee structure and in determining the specific fee of certification, the certification body or entity should take into account, *inter alia*, the requirements for accurate and truthful assessments, the scale, size and complexity of the aquaculture operation or chain of custody, the requirement of non-discrimination of any client, and the particular circumstances and requirements of small-scale farmers, developing countries and countries in transition.

Confidentiality

146. The certification body or entity should have adequate arrangements, consistent with applicable laws, to safeguard confidentiality of the information obtained in the course of its certification at all levels of its organization.
147. Where the law requires information to be disclosed to a third party, the client should be informed of the information provided, as permitted by the law. Otherwise information about a particular product or aquaculture operation should not be disclosed to a third party without a written consent of the client.

Maintenance of certification

148. The certification body or entity should carry out periodic surveillance and monitoring at appropriate intervals to verify that certified aquaculture operations and/or certified chains of custody continue to comply with the certification requirements.
149. The certification body or entity should require the client to notify it promptly of any intended changes to the management of the aquaculture, or the chain of custody, or other changes that may affect conformity to certification standards.
150. The certification body or entity should have procedures to conduct reassessments in the event of changes significantly affecting the status and management of the certified aquaculture operation, or the chain of custody, or if analysis of a complaint or any other information indicates that the certified aquaculture operation and/or the chain of custody no longer comply with the required standard and/or related requirements of the certification body or entity.
151. The period of validity of a certificate should not exceed five years. The assessment required for re-certification should give particular attention to changes made in the conduct of the aquaculture operation or in the management practices.

Renewal of certification

152. On the basis of proper monitoring and auditing, the validity of certification should be renewed for an agreed period, not to exceed five years, or more frequently if warranted by changes in the operation under certification.

Suspension and withdrawal of certification

153. The certification body or entity should specify the conditions under which certification may be suspended or withdrawn, partially or in total, for all or part of the scope of certification.
154. The certification body or entity should require that a certified aquaculture operation and/or chain of custody upon suspension or withdrawal of its certification (however determined), discontinues use of all advertising matter that contains any reference thereto and returns any certification documents as required by the certification body or entity. The certification body or entity should also be responsible for informing the public about the withdrawal or suspension after the appeals process is exhausted.

Maintaining the chain of custody

155. Chain of custody procedures are implemented at the key points of transfer. At each point of transfer, which may vary according to the type of aquaculture product traded, all certified aquaculture products must be identified and differentiated from non-certified aquaculture products.
156. The certification body or entity should ensure that a recipient of certified aquaculture products should maintain pertinent chain of custody records, including all records relating to shipment, receipt and invoicing.
157. The certification body or entity should have documented procedures defining auditing methods and periodicity of audits.

158. Any breach or apparent breach of the chain of custody identified during an inspection/audit should be explicitly recorded in the inspection/audit report together with:
- an explanation of the factors that allowed the breach to occur; and
 - an explanation of the corrective actions taken or required to deal with the product affected by the breach and to ensure that a similar breach does not occur again.
159. All inspection/audit records should be incorporated into a written inspection/audit report that is available to pertinent parties and filed at the office of the certification body or entity.
160. The inspection/audit report should contain, as a minimum:
- the date of the inspection/audit;
 - the name(s) of the person(s) responsible for the report;
 - the names and addresses of the sites inspected/audited;
 - the scope of the inspection/audit; and
 - comments on the conformity of the client with the chain of custody requirements.

Use and control of a certification claim, symbol, label or a logo

161. The owner of the certification scheme should have documented procedures describing the requirements, restrictions or limitations on the use of symbols, labels or logos indicating that an aquaculture product comes from a certified aquaculture operation. In particular, the certification scheme is required to ensure that symbols, labels or logos should not relate to claims that are of no relevance for certified aquaculture operations or products and could cause barriers of trade or mislead the consumer.
162. The owner of the certification scheme should not issue any license to affix its mark/claim/label/logo or issue any certificate for any aquaculture operations or products unless it is assured that the product bearing it is in fact produced from certified sources.
163. The certification body or entity, accreditation body or entity or owner of the certification scheme is responsible that no fraudulent or misleading use is made with the use and display of its certification mark, labels or logos.
164. If the certification body or entity, accreditation body or entity or owner of the certification scheme confers the right to use a symbol, label or logo to indicate certification, the aquaculture operation and any aquaculture product from it may use the specified symbol, label or logo only as authorized in writing by it.
165. The certification body or entity, accreditation body or entity or owner of the certification scheme should take suitable action to deal with incorrect references to the certification system or misleading use of symbols, labels and logos found in advertisements and catalogues.
166. All certificates issued should include:
- the name and address of the accreditation body or entity or owner of the certification scheme;
 - the name and address of the certification body or entity;

- the name and address of the certification holder;
- the effective date of issue of the certificate;
- the substance of the certificate;
- the term for which the certification is valid; and
- the signature and the stamp of the issuing officer.

Resolution of complaints and appeals

Policy and procedures

167. The accreditation body or entity or owner of the certification scheme should have written policy and procedures, applicable to accredited certification bodies, for dealing with any complaints and appeals from involved parties in relation to any aspect of the certification or de-certification. Such procedures should be timely, clearly define the scope and nature of appeals that will be considered and should be open only to parties involved in, or consulted during the assessment. Costs of appeals should be borne by the appellant.

168. These procedures should include an independent and impartial committee to respond to any complaint. If possible, the committee should attempt to resolve any complaint through discussion or conciliation. If this is not possible, the committee should provide a written finding to the certification body or entity, accreditation body or entity or owner of the certification scheme as appropriate, which should transmit the finding to the party or parties involved.

169. The above does not exclude recourse to other forms of legal and administrative processes as provided for in national and regional legislation or international law.

Keeping of records on complaints and appeals concerning certification

170. The certification body or entity, accreditation body or entity or promoter/owner of the certification scheme should:

- keep a record of all complaints and appeals, and remedial actions related to certification;
- take appropriate corrective and preventive action;
- assess the effectiveness of remedial actions; and
- safeguard confidentiality of information obtained during the investigation and resolution of complaints and appeals concerning certification.

171. Information on procedures for handling of complaints and appeals concerning certification should be made publicly available.

SPECIAL CONSIDERATIONS FOR IMPLEMENTATION

172. National and relevant international organizations, whether governmental or non-governmental, the aquaculture industry and financial institutions should recognize the special circumstances and requirements of aquaculture producers and other stakeholders in developing countries, especially those in least-developed countries and small island developing states, to support the effective and progressive implementation of these guidelines. States, relevant intergovernmental and non-governmental organizations, buyers and traders,

and financial institutions should work to address these implementation needs, especially in the areas of financial and technical assistance, technology transfer, capacity building and training. Such assistance should also consider direct support towards the possible high costs of accreditation and certification.

173. Assistance is needed for building the capacity and enhancing the ability of stakeholders to participate in developing and complying with aquaculture certification schemes consistent with these guidelines. This includes ensuring that stakeholders have access to, and understanding of, these guidelines, as well as provisions of relevant international conventions and applicable standards that are essential for responsible aquaculture. Appropriate and up-to-date technologies may be required to comply with certification standards. Full benefit from such technologies would require extension, training, skill development and other local capacity building programmes for farmers and local communities and other stakeholders. Governmental and other institutions should support cooperation, especially at regional and sub-regional levels, in capacity building for developing and complying with aquaculture certification systems most suitable to their regions, and in the elaboration of mechanisms and protocols for the exchange of knowledge, experience and technical assistance in support of these objectives.
174. Different aquaculture certification schemes may be capable of meeting the same objective and to that extent may be equivalent. Memoranda of understanding, mutual recognition agreements, and unilateral recognition may be developed for mutual recognition of aquaculture certification schemes, all of which should include appropriate controls and verification of the certification systems involved. Tools and technical assistance may be required to ensure fairness, transparency and uniformity in developing agreements and monitoring that facilitates the development and implementation of aquaculture certification schemes consistent with the certification, accreditation and standards development procedures provided in these guidelines.
175. Notwithstanding the other provisions of this chapter, third-party certification schemes implemented in application of these guidelines should not replace related certification schemes or official certificates issued by States.
176. FAO will facilitate and monitor implementation of these guidelines on certification in aquaculture and promote exchange of knowledge and experience. Development agencies and donor institutions are encouraged to support FAO in facilitating financial and technical assistance to developing countries and countries in transition.

Technical Guidelines on Aquaculture Certification
Version Adopted by the COFI Sub-Committee on Aquaculture at
its 5th Session in Phuket, Thailand

BACKGROUND

177. Global production from aquaculture is growing substantially and provides increasingly significant volumes of fish and other aquatic food for human consumption, a trend that is projected to continue. Although aquaculture growth has potential to meet the growing need for aquatic foods and to contribute to food security, poverty reduction and, more broadly, to achieving sustainable development and the Millennium Development Goals, it is increasingly recognised that improved management of the sector is necessary to achieve this potential.
178. Aquaculture is a highly diverse production sector comprising many different systems, sites, facilities, practices, processes and products, conducted under a wide range of political, social, economic and environmental conditions.
179. Efforts to promote aquaculture development should recognize the special concerns and interests of resource-poor small-scale aquaculture farmers, and encourage corporate social responsibility in engaging small-scale farmers and other small-scale stakeholder in market chains. Certification schemes should not create obstacles to trade or exclude small-scale farmer aquaculture products from market chains.
180. Aquaculture production and trade have increased, but concerns have emerged regarding possible negative impacts on the environment, communities and consumers. Solutions to many of these issues have been identified and addressed. The application of certification in aquaculture is now viewed as a potential market-based tool for minimising potential negative impacts and increasing societal and consumer benefits and confidence in the process of aquaculture production and marketing.
181. Although aquatic animal health and food safety issues of aquaculture have been subjected to certification and international compliance for many years, aspects of animal welfare, environmental issues and socio-economic aspects have not been subjected to compliance or certification.

SCOPE

182. These guidelines provide guidance for the development, organization and implementation of credible aquaculture certification schemes.
183. The guidelines consider a range of issues which should be considered relevant for the certification in aquaculture, including: a) animal health and welfare, b) food safety, c) environmental integrity and d) socio-economic aspects associated with aquaculture.
184. Sustainable development of aquaculture depends on three factors, social, economic and environmental sustainability, all of which have to be addressed proportionally.
185. There is an extensive national and international legal framework in place for various aspects of aquaculture and its value chain, covering such issues as aquatic animal disease control, food safety and conservation of biodiversity. Legislation is particularly strong for processing, export and import of aquatic products. Recognised competent authorities are normally

empowered to verify compliance with mandatory national and international legislation. Other issues such as environmental sustainability and socio-economic aspects may not be covered in such a binding manner and open the opportunity for voluntary certification as a means to demonstrate that a particular aquaculture system is managed responsibly.

186. Credible aquaculture certification schemes consist of three main components: (i) standards; (ii), accreditation, and (iii) certification. The guidelines therefore cover:
- standard setting processes required to develop and review certification standards;
 - accreditation systems needed to provide formal recognition to a qualified body to carry out certification;
 - certification bodies required to verify compliance with certification standards.
187. Developing and implementing a certification scheme may be undertaken by any entity qualified to do so in accordance with the requirements of these guidelines. Such an entity can include, inter alia, a government, an intergovernmental organization, a non-governmental organization, private sector group (e.g. a producer or trade association), a civil society arrangements, or consortium comprising some or all of these different stakeholder groups, as direct users of the guidelines. The guidelines provide information on the institutional and organizational arrangements for aquaculture certification, including governance requirements, particularly to ensure that conflicts of interest are avoided.

TERMS AND DEFINITIONS

188. For the purpose of these international guidelines on aquaculture certification, the following terms and definitions apply. These terms and definitions come from or were derived from existing recognized material (e.g. FAO⁸, ISO⁹, Codex Alimentarius¹⁰, OIE¹¹, FAO Ecolabelling Guidelines, FAO Code of Conduct for Responsible Fisheries (CCRF) and many others), and stakeholder inputs received during the process of developing the guidelines.

Accreditation

Procedure by which a competent authority consistent with applicable law gives formal recognition that a qualified body or person is competent to carry out specific tasks.

(Modified from ISO/IEC Guide 2:1996, 12.11)

Accreditation body

Body that conducts and administers an accreditation system and grants accreditation.

(ISO Guide 2, 17.2)

Accreditation system

System that has its own rules of procedure and management for carrying out accreditation. Accreditation of certification bodies is normally awarded following successful assessment and is followed by appropriate surveillance.

(ISO Guide 2, para. 17.1)

Aquaculture

⁸ Food and Agriculture Organization of the United Nations

⁹ International Standards Organization

¹⁰ Codex Alimentarius Commission

¹¹ World Organisation for Animal Health

The farming of aquatic organisms involving intervention in the rearing process to enhance production and the individual or corporate ownership of the stock being cultivated.

(Modified from the FAO Glossary of Aquaculture - <http://www.fao.org/fi/glossary/aquaculture/>)

Audit

A systematic and functionally independent examination to determine whether activities and related results comply with planned objectives.

(Codex Alimentarius, Principles for Food Import and Export Certification and Inspection, CAC/GL 20)

Certification

Procedure by which certification body or entity gives written or equivalent assurance that a product, process or service conforms to specified requirements. Certification may be, as appropriate, based on a range of audit activities that may include continuous audit in the production chain.

(Modified from ISO Guide 2, 15.1.2; Principles for Food Import and Export Certification and Inspection, CAC/GL 20; Ecolabelling Guidelines)

Certification body or entity

Competent and recognized body, governmental or non-governmental, that conducts certification and audit activities. A certification body may oversee certification activities carried out on its behalf by other bodies.

(Based on ISO Guide 2, 15.2)

Certification scheme

The processes, systems, procedures and activities related to standard setting, accreditation and implementation of certification. (Adapted from the Report of the First Expert Workshop on Aquaculture Certification held in Bangkok, Thailand. March 2007)

Chain of custody

The set of measures that verify that a certified product originates from a certified aquaculture production chain, and is not mixed with non-certified products. Chain of custody verification measures should cover the tracking/traceability of the product all along the production, processing, distribution and marketing chain, the tracking of documentation, and the quantity concerned.

Form FAO Fisheries Ecolabelling Guidelines

Conformity assessment

Any activity concerned with determining directly or indirectly that relevant requirements are fulfilled.

(Modified from ISO Guide 2, 12.2)

Group certification

Certification for a group of small-scale aquaculture farmers or aquaculture farmer cooperative who has key characteristics in common in term of nature of production, proximity of farm location, common marketing as a group. The group has an Internal Control System to ensure compliance with the standards by all members of the group.

Small-scale aquaculture

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

(Adapted from the Report of the First Expert Workshop on Aquaculture Certification held in Bangkok, Thailand. March 2007)

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, packaging, marking or labelling 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 recognised body. A private sector standard is prepared by a private body and is not in all cases approved by an officially recognised body.

(Based on TBT agreement, Annex 1, para. 2)

Standard setting body, organization or entity

Organization or entity that has recognized activities in standard setting.

(Based on ISO Guide 2, para. 4.3)

Third party

Person or body that is recognized as being independent of the parties involved, as concerns the issue in question, and involves no conflict of interest.

(ISO/IEC Guide 2:1996; Ecolabelling Guidelines)

Traceability

The ability to follow the movement of a product of aquaculture or inputs such as feed and seed, through specified stage(s) of production, processing and distribution. (Adapted from Codex)

Unit of certification

The scale or extent of the aquaculture operation(s) assessed and monitored for compliance. The unit of certification could consist of a single farm, production unit or other aquaculture facility. The certification unit could also consist of a group or cluster of farms that should be assessed and monitored collectively.

Veterinary Medicinal Products

Any substance or combination of substances presented for treating or preventing 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. (EU Directive 2001/82/EC)

APPLICATION

189. These guidelines for voluntary certification schemes are to be interpreted and applied in their entirety in a manner consistent with national laws and regulations and, where they exist, international agreements.
190. Entities responsible for new and existing aquaculture certification schemes should undertake to assess, verify and document that these certification schemes have been developed and are being implemented in accordance with the guidelines. If there are deficiencies in the way an existing scheme was developed and/or in how it is being implemented, the entities responsible for the functions (i.e. standard setting, accreditation, or certification) should act accordingly to define and implement a corrective action plan. When this is completed, the entities should verify and document that the scheme is in accordance with the guidelines. There should not be any conflict of interest among the entities involved.
191. If the entities responsible for a private aquaculture certification scheme do not provide credible assurance that the scheme has been developed and is being implemented in

accordance with the guidelines, stakeholder groups (especially those being certified under the scheme) may use these guidelines to have the scheme evaluated by a body with appropriate expertise or undertake such evaluation themselves. See chapter on Institutional and Procedural Requirements for details.

192. The evaluation would use these guidelines to assess whether a certification scheme is developed and implemented in accordance with the guidelines regarding, *inter alia*:

- whether the principles have been adhered to;
- whether the special considerations have been addressed;
- whether the objectives of the scheme and issue areas have been addressed in accordance with the appropriate minimum substantive requirements; and
- whether the standard setting, accreditation and/or certification have been developed and implemented in accordance with the institutional and procedural requirements.

PRINCIPLES

193. **Aquaculture certification schemes:**

- n. should be based on international standards or guidelines, where applicable, and must recognise the sovereign rights of States and comply with relevant local, national and international laws and regulations. They must be consistent with relevant international agreements, conventions, standards, codes of practice and guidelines.
- o. should recognise that any person or entity undertaking aquaculture activities is obliged to comply with all national laws and regulations.
- p. should be developed based on the best scientific evidence available, also taking into account traditional knowledge, provided that its validity can be objectively verified.
- q. should be developed and implemented in a transparent manner and should ensure that there is no conflict of interest among the entities that are responsible for standard setting, accreditation, and certification. These entities should facilitate mutual recognition, strive to achieve harmonization and recognise equivalence, based on the requirements and criteria outlined in these guidelines.
- r. should be open to scrutiny by consumers, civil society, and their respective organisations and other interested parties, while respecting legitimate concerns to preserve confidentiality.
- s. should be credible and robust, be fully effective in achieving their designated objectives.
- t. should promote responsible aquaculture during production as outlined in the FAO Code of Conduct for Responsible Fisheries, in particular the Article 9, Aquaculture Development.
- u. should include adequate procedures for maintaining chain of custody and traceability of certified aquaculture products and processes.

- v. should establish clear accountability for all involved parties, including the owners of certification schemes, accreditation bodies and the certification bodies, in conformity with international requirements, as necessary.
- w. should not discriminate against any group of farmers practising responsible aquaculture based on scale, intensity of production, or technology; promote cooperation among certification bodies, farmers and traders; incorporate reliable, independent auditing and verification procedures; and should be cost-effective to ensure inclusive participation of responsible farmers.
- x. should strive to encourage responsible trade, consistent with the FAO Technical Guidelines on Responsible Fish Trade, and should provide the opportunity for aquaculture products to enter international markets without obstacles to trade.
- y. should ensure special considerations are provided to address the interests of resource- poor small-scale farmers, especially the financial costs and benefits of participation, without compromising food safety.
- z. These aquaculture certification guidelines should recognize the special needs of farmers and governments in developing countries. These guidelines should also recognize the special role of FAO in assisting developing countries in devising an implementation framework which is both attainable and measurable. Similarly, FAO should facilitate the assessment of the capacity of farmers and governments to meet the proposed requirements of aquaculture certification schemes, and to develop realistic expectations with regard to the farmers and governments meeting these requirements.

MINIMUM SUBSTANTIVE CRITERIA

194. Minimum substantive criteria for developing aquaculture certification standards are provided in this section for a) animal health and welfare, b) food safety, c) environmental integrity and d) socio-economic aspects. The extent to which a certification scheme seeks to address the issues depends on the objectives of the scheme, which should be explicitly and transparently stated by the scheme. Development of certification schemes should consider the importance of being able to measure performance of aquaculture systems and practices, and the ability to assess conformity with certification standards.

Animal health and welfare¹²

195. Aquaculture activities should be conducted in a manner that assures the health and welfare of farmed aquatic animals, by optimizing health through minimizing stress, reducing aquatic animal disease risks and maintaining a healthy culture environment at all phases of the production cycle. Guidelines and standards set by OIE should be the specific normative basis.

¹² For the purpose of these guidelines, reference to animal welfare applies only insofar as it affects animal health consistent with current and future OIE.

Minimum substantive criteria for addressing aquatic animal health and welfare in aquaculture certification schemes:

196. Aquaculture operations should implement aquatic animal health management programmes set up 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.
197. Movement of aquatic animals, animal genetic material and animal products should take place in accordance with the relevant provisions in the OIE Aquatic Animal Health Code to prevent introduction or transfer of diseases and infectious agents pathogenic to aquatic animals while avoiding unwarranted sanitary measures.
198. A culture environment should be maintained at all phases of the production cycle adapted to the species raised, to benefit aquatic animal health and welfare, and reduce the risks of introduction and spread of aquatic animal diseases. In particular by
- Allowing for quarantining of stock where appropriate;
 - Routine monitoring of stock and environmental conditions for early detection of aquatic animal health problems; and
 - Implementation of management practices that reduce the likelihood of disease transmission within and between aquaculture facilities and natural aquatic fauna, and reduce stress on animals for the purpose of optimizing health.
199. Veterinary medicines should be used in responsible manner and in accordance with applicable national legislation or relevant international agreements that ensure effectiveness, safety of public and animal health and protection of the environment.
200. Use of species in polyculture or integrated multitrophic aquaculture should be carefully considered in order to reduce potential disease transmission between cultured species.
201. Aquaculture animals should be kept under farming conditions suitable for the species concerned, in particular taking into account water temperature and quality.
202. 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 aquatic animal health and welfare in aquaculture.

Food safety

203. Aquaculture activities should be conducted in a manner that ensures food safety by implementing appropriate national or international standards and regulations including those defined by FAO/WHO *Codex Alimentarius*. Although *Codex Alimentarius* covers both safety and quality issues concerning aquatic products, for the purpose of these guidelines, quality aspects are not currently addressed in detail.

Minimum substantive criteria for addressing food safety in aquaculture certification schemes:

204. Aquaculture facilities should be located in areas where the risk of contamination is minimized and where sources of pollution can be controlled or mitigated.
205. Where feed is used, aquaculture operations should include procedures for avoiding feed contamination in compliance with national regulations or as determined by internationally agreed standards. Aquaculture operations should use feeds and feed ingredients which do not contain unsafe levels of pesticides, biological, chemical and physical contaminants and or other adulterated substances. Feed which is manufactured or prepared on the farm should contain only substances permitted by the national competent authorities.
206. All veterinary drugs and chemicals for use in aquaculture shall comply with national regulations , as well as international guidelines. Wherever applicable, veterinary drugs and chemicals should be registered with the competent national authority. Veterinary drugs should be scheduled (classified). Control of diseases with veterinary drugs and antimicrobials should be carried out only on the basis of an accurate diagnosis and knowledge that the drug is effective for control or treatment of a specific disease. In some classifications, veterinary drugs may only be prescribed and distributed by personnel authorized under national regulations. All veterinary drugs and chemicals or medicated feeds should be used according to the instructions of the manufacturer or other competent authority, with particular attention to withdrawal periods. Banned non-registered and/or non permitted antimicrobial agents, veterinary drugs and/or chemicals must not be used in aquaculture production, transportation or product processing. Prophylactic use of veterinary medicinal products, particularly antimicrobial agents¹³, should not take place.
207. Water used for aquaculture should be of a quality suitable for the production of food which is safe for human consumption. Waste water should not be used in aquaculture. If wastewater is used, the WHO guidelines for the safe use of wastewater and excreta in aquaculture should be followed.
208. The source of broodstock and seed for culture (larvae, post larvae, fry and fingerling, etc.) should be such to reduce the risk of carryover of potential human health hazards (e.g. antibiotics, parasites, etc.) into the growing stocks.
209. Traceability and record-keeping of farming activities and inputs which impact food safety should be ensured by documenting, *inter alia*:
- the source of inputs such as feed, seed, veterinary drugs and antibacterials, additives, chemicals; and
 - type, concentration, dosage, method of administration and withdrawal times of chemicals, veterinary drugs and antibacterials and the rationale for their use.
210. Aquaculture facilities and operations should maintain good culture and hygienic conditions, including:
- Good hygiene practices in the farm surroundings should be applied aiming at minimizing contamination of growing water, particularly from waste materials or faecal matter from animals or humans;
 - Good Aquaculture Practices should be applied during culture to ensure good hygienic culture conditions and safety and quality of aquaculture produce;

¹³ Antimicrobial agents do not include vaccines.

- Farms should institute a pest control programme, so that rodents, birds and other wild and domesticated animals are controlled, especially around feed storage areas;
 - Farm grounds should be well maintained to reduce or eliminate food and feed safety hazards; and
 - Appropriate techniques for harvesting, storing and transportation of aquaculture products should be applied to minimize contamination and physical damage.
211. Identification, classification, integrated management and monitoring programmes should be implemented in bivalve molluscs growing areas to prevent microbiological, chemical and reduce biotoxin contamination. Relaying and depuration of bivalve molluscs to remove microbial contamination should be carried in accordance with the requirements of Codex.
212. Workers 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.

Environmental integrity

213. Aquaculture should be planned and practiced in an environmentally responsible manner, in accordance with appropriate local, national and international laws and regulations.
214. Aquaculture certification schemes should encourage restoration of habitats and sites damaged by previous uses in aquaculture.
215. Aquaculture can impact on the environment and aquaculture certification schemes should ensure these impacts are identified and adverse impacts are managed or mitigated to an acceptable level in accordance with local and national laws. Whenever possible, native species should be used for culture and measures should be taken to minimise unintentional release or escape of cultured species into natural environments.
216. Management practices that address environmental impacts of aquaculture differ substantially for different types of scale of aquaculture and for different aquaculture farming systems. Certification schemes should not be overly prescriptive, but set measurable benchmarks that encourage improvement and innovation in environmental performance of aquaculture.
217. Certification schemes may consider application of the “precautionary approach” in accordance with the relevant provisions of the Code of Conduct for Responsible Fisheries.
218. In undertaking risk analysis, risks should be addressed through a suitable scientific method of assessing the likelihood of events and the magnitude of impacts, and take into account relevant uncertainties. Appropriate reference points should be determined and remedial actions taken if reference points are approached or exceeded.
219. Certification schemes should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment¹⁴.

¹⁴ Based on the principle 16 of the Rio Declaration on Environment and Development, June 1992.

Minimum substantive criteria for addressing environmental integrity in aquaculture certification schemes:

- 220. Environmental impact assessments should be conducted, according to national legislation, prior to approval of establishment of aquaculture operations.
- 221. Regular monitoring of on-farm and off-farm environmental quality should be carried out, combined with good record keeping and use of appropriate methodologies.
- 222. Evaluation and mitigation of the adverse impacts on surrounding natural ecosystems, including fauna, flora and habitats should be carried out.
- 223. Measures should be adopted to promote efficient water management and use as well as proper management of effluents to reduce impacts on surrounding land and water resources should be adopted.
- 224. Where possible, hatchery produced seed should be used for culture. When wild seeds are used, they should be collected using responsible practices.
- 225. Exotic species are to be used only when they pose an acceptable level of risk to the natural environment, biodiversity and ecosystem health.
- 226. With reference to paragraph 9.3.1 of the Code of Conduct for Responsible Fisheries, where genetic material of an aquatic organism has been altered in a way that does not occur naturally, science-based risk assessment should be used to address possible risks on a case-by-case basis. Induction of polyploidy is not included.
- 227. Infrastructure construction and waste disposal should be conducted responsibly.
- 228. Feeds, feed additives, chemicals, veterinary drugs including antimicrobials, manure and fertilizer should be used responsibly to minimize their adverse impacts on the environment and to promote economic viability.

Socio-economic aspects

- 229. Aquaculture should be conducted in a socially responsible manner, within national rules and regulations, having regard to the ILO-convention on labour rights, not jeopardizing the livelihood of aquaculture workers, and local communities. Aquaculture contributes to rural development, enhances benefits and equity in local communities, alleviates poverty and promotes food security. As a result, socio-economic issues should be considered at all stages of aquaculture planning, development and operation.
- 230. The importance of corporate social responsibility from aquaculture to local communities should be recognized.

Minimum substantive criteria for addressing socio-economic aspects in aquaculture certification schemes:

231. Workers should be treated responsibly and in accordance with national labour rules and regulations and, where appropriate, relevant ILO conventions.
232. Workers should be paid wages and provided benefits and working conditions according to national laws and regulations.
233. Child labour should not be used in a manner inconsistent with ILO conventions and international standards.

INSTITUTIONAL AND PROCEDURAL REQUIREMENTS

234. The institutional and procedural requirements for establishing and implementing credible aquaculture certification schemes are presented here in four parts: 1) Governance, 2) Standard setting, 3) Accreditation and 4) Certification.
235. The sections on Standards setting, Accreditation, and Certification are each subdivided into four sections: i) Purpose, ii) Normative references, iii) Functions and structure and iv) Requirements. The requirements are considered the minimum requirements that a body or entity should meet to be recognized as credible and reliable in executing its duties and responsibilities. The principles provided in this document apply equally to procedural and institutional aspects of certification schemes for aquaculture.
236. The guidance presented here draws on other internationally accepted guidance, especially those produced by the International Organization for Standardization (ISO) and the International Labour Organization (ILO), and the Codex Alimentarius Commission (CAC). Any certification scheme implemented pursuant to these guidelines must conform with a country's WTO commitments, particularly those under the WTO Agreement on Technical Barriers to Trade and the Agreement on the Application of Sanitary and Phyto-Sanitary Measures.

Governance

237. The procedures used and institutions involved in establishing and implementing a certification scheme should be transparent, credible and robust with good governance.
238. There are various options for the geographical range of a scheme. It could be national, regional or international in scope.
239. It is essential that the owner of a private or non-governmental certification scheme is not directly engaged in its operational affairs, i.e. undertaking accreditation or certification, to avoid conflicts of interest. The owner or developer of a private or non-governmental certification scheme must have a formal arrangement with a separate independent specialized accreditation body or entity to take on the task of accreditation of certification bodies on its behalf. The accreditation body or entity could be private, public or an autonomous body governed by national rules and regulations.
240. The owner or developer of a certification scheme should have clear written procedures to guide the decision-making process.

241. Certification must be handled by an organization (certification body or entity) that has been specifically set up for this purpose. It could be government, public, non-governmental or private. The certification scheme should lay down rules and regulations under which the certification body or entity is required to operate. The certification body or entity may be involved in certification for one certification scheme for one specific sector (e.g. aquaculture) or may be involved with a number of sectors or schemes.

Standard setting

Purpose

242. Standards provide the necessary requirements, the quantitative and qualitative criteria and the indicators for certification of aquaculture. Standards should reflect the objectives, results and outcomes that are being pursued through the certification scheme to address animal health and welfare, food safety, environmental integrity and/or socio-economic aspects in aquaculture.

Normative basis

243. The normative basis for development of standards includes the following existing documented procedures:

- *WTO Agreement on technical barriers to trade*
- *WTO Agreement on the application of sanitary and phytosanitary measures*
- *Codex guidelines on food import and export inspection and certification systems*
- *ISO/IEC Guide 59. Code of good practice for standardization. 1994*
- *ISO/IEC 22003:2007 Food safety management systems: Requirements for bodies providing audit and certification of food safety management systems*
- *ISEAL. ISEAL Code of Good Practice for Setting Social and Environmental Standards. 2006*
- *OIE Aquatic Animal Health Code*
- *International Council for the Exploration of the Sea (ICES) Code of Practice on the Introductions and Transfers of Marine Organisms*
- *Code of Practice on the Introductions and Transfers of Marine Organisms*
- *ISO/IEC 22000:2005 Food safety management systems- Requirements for any organization in the food chain*
- *ISO/TS 2004:2005 Food safety management systems - Guidance on the application of ISO 22000:2005*
- *ISO 22005:2007 Traceability in the feed and food chain - General principles and basic requirements for system design and implementation*
- *ISO/IEC 16665 Water quality - Guidelines for quantitative sampling and sample processing of marine soft-bottom macrofauna*
- *ISO 23893-1:2007 Water quality - Biochemical and physiological measurements on fish - Part 1: Sampling of fish, handling and preservation of samples*
- *ISO/IEC 17021:2006 Conformity assessment - Requirements for bodies providing audit and certification of management systems*
- *ISO/IEC 17065*

- ISO/IEC 22003:2007 *Food safety management systems: Requirements for bodies providing audit and certification of food safety management systems*
- ISO/IEC 17021. *Management Systems certification*
- ISO/IEC 22003. *Food safety management systems*
- ISO/IEC 17025. *Laboratory testing*
- ISO/IEC 22005. *Chain of Custody*

Functions and organizational structure

244. Standard setting encompasses the tasks of developing, monitoring, assessing, reviewing, and revising standards. These tasks can be fulfilled through a specialized standard setting body or entity, or through another suitable entity and be either a government or non government entity. The standard setting body or entity is also responsible for ensuring appropriate communications and outreach regarding the standard and the standard setting process, and ensuring that the standard and associated documents are available.
245. The organizational structure of a standard setting body or entity should include, *inter alia*, a technical committee of independent experts and a consultation forum with relevant stakeholder representatives whose mandates are clearly established.
246. A standard setting body or entity must be a legal entity, with sufficient resources to support its standard setting function. The process should include adequate stakeholder representation. Governance, administration and other support staff should be free of conflicts of interest.

Requirements

Transparency

247. Transparency in the setting of standards is essential. Transparency helps facilitate consistency with relevant national and international standards and facilitates access to information and records pertaining to certification and participation of all interested parties, including those of developing countries and countries in transition, particularly small-scale stakeholders.
248. The standard setting body or entity should carry out activities in a transparent fashion, following written rules of procedure. Procedural rules should contain a mechanism for the impartial resolution of any substantive or procedural disputes about the handling of standard setting matters.
249. On a regular basis as appropriate, the standard setting body or entity should publicize its work programme as widely as possible.
250. On the request of any interested party, the standards setting body or entity should provide, or arrange to provide, within reasonable time, a copy of its standard setting procedures, most recent work programme, draft standards or final standards.
251. Based on the needs of users, a standards setting body or entity should translate the standard setting procedures, most recent work programme, draft standards or final standards into appropriate languages.

Participation by interested parties

252. The standards setting body or entity should strive to achieve balanced participation by independent technical experts and by representatives of interested parties in the standards development, revision and approval process. Interested parties can include, *inter alia*, governments, non-governmental organizations, private sector groups, civil society arrangements, representatives of the aquaculture industry (input suppliers, producers, processors, traders and retailers), the scientific community, community groups and various consortia, as indirect users of the guidelines.

253. Interested parties should be associated in the standard setting process through an appropriate consultation forum or be made aware of appropriate alternative mechanisms by which they can participate. Where more than one forum is designated, appropriate coordination and communication requirements should be determined and provided.

Content and comparable systems

254. The standards setting process should seek to:

- include international reference standards in animal health and welfare, food safety, environmental integrity and socio-economic aspects;
- identify and review comparable systems;
- identify research needs and knowledge gaps;
- include requirements of relevant international agreements; and
- encourage mutual recognition among certification schemes.

Notification provisions

255. Before adopting a standard(s), the standards setting body or entity should allow a period of an appropriate duration for the submission of comments on the draft standards by interested parties. No later than the start of the comment period, the standard setting body or entity should publish a notice announcing the period for commenting in a national or, as appropriate, regional or international publication of standardization activities and/or on the Internet.

256. In further processing of the standards, the standards setting body or entity should take into account the comments received during the period for commenting.

Keeping of records

257. Proper records of standards and development activity should be prepared and maintained. The standards setting organization or entity should identify a central focal point for standards-related enquiries and for submission of comments. Contact information for this focal point should be made easily available including on the Internet.

Review and revision of standards and of standards setting procedures

258. Standards should be reviewed at regular published intervals in consultation with appropriate stakeholders and, if appropriate, revised following such reviews. Certified aquaculture

operations should be given an appropriate period to come into compliance with the revised standards.

259. Proposals for revisions can be submitted by any interested party and should be considered by the standard setting body or entity through a consistent and transparent process.

260. The procedural and methodological approach for setting standards should also be updated in the light of scientific and technical progress and of the experience gained in the application of the standard in aquaculture.

Validation of standards

261. In developing and revising standards, an appropriate procedure should be put in place to corroborate the standard vis-à-vis the minimum requirements for aquaculture as laid out in these guidelines. Validation is also required to ensure that standards:

- are effective in meeting the certification goals, meaningful, objective and auditable;
- do not contain criteria or requirements that could cause unnecessary barriers to trade or mislead the aquaculture community; and
- take into consideration practicality and cost of standards development and maintenance.

Accreditation

Purpose

262. Accreditation provides assurance that certification bodies responsible for conducting conformity assessments according to standards for aquaculture in relation to animal health and welfare, food safety, environmental integrity and socio-economic aspects are competent to carry out such tasks. Accreditation provides assurance that the certification body or entity is able to assess and certify that a specific aquaculture product, method or process comes from a certified aquaculture operation and conforms to the standards.

Normative reference

- ISO/IEC 17011. *Conformity assessment - General requirements for accreditation bodies accrediting conformity assessment bodies.*

Functions and structure

263. Accreditation is an independent assessment of the competence of the certification body or entity. The task of granting accreditation following successful assessment should be undertaken by competent accreditation bodies. Accreditation is carried out on the basis of a system that has its own rules and management, i.e. an accreditation system.

264. An accreditation body or entity must be a legal entity, with sufficient resources to support its functions in undertaking accreditation. The governance structure should include appropriate stakeholder representation. Governance, administration and other support staff should be free of conflicts of interest. In order to be recognized as competent and reliable in undertaking the assessment of certification bodies or entities in a non-discriminatory, impartial and accurate manner, an accreditation body or entity should fulfill, *inter alia*, the following requirements.

Requirements

Non-discrimination

265. Access to the services of the accreditation body or entity should be open to all certification entities irrespective of their location. Access should not be conditional upon the size of the applicant body or membership in any association or group, nor should accreditation be conditional upon the number of certification bodies already accredited.
266. Full recognition should be given to the special circumstances and requirements of certification bodies in developing countries and countries in transition including financial and technical assistance, technology transfer, and training and scientific cooperation, without compromising the integrity of the accreditation and certification process.

Independence, impartiality and transparency

267. The accreditation body or entity should be independent and impartial. In order to be impartial and independent, the accreditation body should:
- be transparent about its organizational structure and the financial and other kinds of support it receives from public or private entities;
 - be independent from vested interests, together with its senior executive and staff;
 - be free from any commercial, financial and other pressures that might influence the results of the accreditation process;
 - ensure that decision on accreditation is taken by a person(s) who has(ve) not participated in certification (conformity assessment); and
 - not delegate authority for granting, maintaining, extending, reducing, suspending or withdrawing accreditation to an outside person or body.

Human and financial resources

268. The accreditation body or entity should have adequate financial resources and stability for the operation of an accreditation system and should maintain appropriate arrangements to cover liabilities arising from its operations and/or activities.
269. The accreditation body or entity should employ a sufficient number of personnel having the necessary training, technical knowledge and experience for performing accreditation functions in aquaculture.
270. Information on the relevant qualifications, training and experience of each member of the personnel involved in the accreditation process should be maintained by the accreditation body or entity. Record of training and experience should be kept up to date.
271. When an accreditation body or entity decides to subcontract work related to accreditation other than work exempted in paragraph 91 to an external body or person, the requirements for such an external body should be no less than for the accreditation body or entity itself. A properly documented contractual or equivalent agreement covering the arrangements including confidentiality and conflict of interests, should be drawn up.

Accountability and reporting

272. The accreditation body or entity should be a legal entity and should have clear and effective procedures for handling applications for accreditation procedures. In particular, the accreditation body or entity should maintain and provide to the applicants and accredited entities:

- a detailed description of the assessment and accreditation procedure;
- the documents containing the requirements for accreditation; and
- the documents describing the rights and duties of accredited bodies.

273. A properly documented contractual or equivalent agreement describing the responsibilities of each party should be drafted.

274. The accreditation body or entity should have:

- defined objectives and commitment to quality;
- procedures and instructions for quality documented in a quality manual; and
- an established effective and appropriate system for quality.

275. The accreditation body or entity should conduct periodic internal audits covering all procedures in a planned and systematic manner to verify that the accreditation system is implemented and effective.

276. The accreditation body or entity may receive external audits on relevant aspects. The results of the audit should be accessible by the public.

277. Qualified personnel, attached to the accreditation body or entity, should be nominated by the accreditation body or entity to conduct the assessment against all applicable accreditation requirements.

278. Personnel nominated for the assessments should provide the accreditation body or entity with a report of its findings as to the conformity of the body assessed to all of the accreditation requirements. The report should provide sufficiently comprehensive information such as:

- the qualification, experience and authority of the staff encountered;
- the adequacy of the internal organization and procedures adopted by the certification body or entity to give confidence in its services; and
- the actions taken to correct identified nonconformities including, where applicable, those identified at previous assessments.

279. The accreditation body or entity should have policy and procedures for retaining records of what happened during the assessment visit for a period consistent with its contractual, legal or other obligations. The records should demonstrate that the accreditation procedures have been effectively fulfilled. The records should be identified, managed and disposed of in such a way as to ensure the integrity of the process and confidentiality of the information.

Resolution of complaints concerning accreditation of certifying bodies

280. The accreditation body or entity should have a written policy and procedures for dealing with any complaints in relation to any aspect of the accreditation or de-accreditation of certifying bodies.
281. These procedures should include establishment, on an *ad hoc* basis as appropriate, of an independent and impartial committee to respond to a complaint. The committee should seek to resolve any complaints through discussion or conciliation. If this is not possible, the committee should provide a written ruling to the accreditation body or entity, which should transmit it to the other party or parties involved.
282. The accreditation body or entity should:
- keep a record of all complaints, and remedial actions relative to accreditation;
 - take appropriate corrective and preventive actions;
 - assess the effectiveness of remedial actions; and
 - safeguard confidentiality of information obtained during the investigation and resolution of complaints.
283. Information on procedures for handling complaints concerning accreditation should be made publicly available.
284. The above does not exclude recourse to other forms of legal and administrative processes as provided for in national legislation or international law.

Confidentiality

285. The accreditation body or entity should have adequate arrangements, consistent with applicable laws, to safeguard confidentiality of the information obtained in the course of its accreditation activities at all levels of its organization, including committees and external bodies acting on its behalf.
286. Where the law requires information to be disclosed to a third party, the body should be informed of the information provided, as permitted by the law. Otherwise information about an applicant certification body or entity should not be disclosed to a third party without a written consent of the body.

Maintenance and extension of accreditation

287. The accreditation body or entity should have arrangements to define the period of accreditation of a certifying body or entity, with clear monitoring procedures.
288. The accreditation body or entity should have arrangements to ensure that an accredited certification body or entity informs it without delay of changes in any aspects of its status or operation.
289. The accreditation body or entity should have procedures to conduct reassessments in the event of changes significantly affecting the capabilities or scope of activities of the accredited

body or entity or the conformance with any other relevant criteria of competence specified by the accreditation body or entity.

290. Accreditation should be re-assessed at sufficiently close intervals or as necessary to verify that the accredited certification body or entity continues to comply with the accreditation requirements. The period for carrying out reassessments should not exceed five years.

Suspension and withdrawal of accreditation

291. The accreditation body or entity should specify the conditions under which accreditation may be suspended or withdrawn, partially or in total, for all or part of the scope of accreditation.

Change in the accreditation requirements

292. The accreditation body or entity should give due notice of any changes it intends to make in its requirements for accreditation to all stakeholders involved.
293. It should take account of views expressed by interested parties before deciding on the precise form and effective date of the changes.
294. Following a decision on and publication of the changes, it should verify that each accredited body or entity carries out any necessary adjustments to its procedures within such time as, in the opinion of the accreditation body or entity, is reasonable.
295. Special considerations should be given to accredited bodies in developing countries and countries in transition, without compromising the integrity of the certification process.

Proprietor or licensee of an accreditation symbol, label or a logo

296. The provisions on the use and control of a certification claim, symbol, label or logo are addressed in the following section on certification.
297. The accreditation body or entity that is proprietor or licensee of a symbol or logo, intended for use under its accreditation programme, should have documented procedures describing its use.
298. The accreditation body or entity should not allow use of its accreditation mark or logo in any way that implies that the accreditation body or entity itself approved a product, service or system certified by a certification body or entity.
299. The accreditation body or entity should take suitable action to deal with incorrect references to the accreditation system or misleading use of accreditation logos found in advertisements, catalogues, etc.

Certification

Purpose

300. Certification is the procedure by which a body or entity gives written or equivalent assurance that the aquaculture operation or activity under consideration conforms to the relevant aquaculture certification standards. Impartial certification based on an objective assessment of relevant factors provides assurance to buyers and consumers that a certified aquaculture product comes from an aquaculture operation that conforms to the certification standards.

Scope

301. Certification could include an aquaculture activity e.g. an aquaculture operation of the chain of custody of a product. Separate certificates may be issued for the aquaculture activity and the chain of custody of a product.

302. Two types of assessments are required for certification:

- Conformity assessment: Whether an aquaculture activity conforms to the standards and related certification criteria.
- Chain of custody assessment: Whether adequate measures are in place to identify and differentiate products from a certified aquaculture operation including production and subsequent stages of processing, distribution and marketing (traceability).

303. Aquaculture products that are labelled to indicate to the buyer and consumer of their origin from a certified aquaculture operation and chain of custody require both types of assessments and certificates.

Normative references

- ISO Guide 62, General Requirements for bodies operating assessment and certification/registration of quality systems. 1996
- ISO/IEC Guide 65, General requirements for bodies operating product certification systems. 1996
- WTO. Agreement on Technical Barriers to Trade
- ISO/IEC 17021. Management Systems certification
- ISO/IEC 22003. Food safety management systems
- ISO/IEC 17025. Laboratory testing
- ISO/IEC 22005. Chain of Custody
- OIE Aquatic Animal Health Code/Guidelines
- TBT Articles 5-6. Conformity Assessment

Functions and structure

304. The tasks of carrying out conformity and chain of custody assessments should be undertaken by accredited certification bodies. In order to be recognized as competent and reliable in undertaking the assessments in a non-discriminatory, impartial and accurate manner, a certification body or entity should fulfill the following requirements.

Requirements

Independence and impartiality

305. The certification body or entity should be legally and financially independent from the owner of the certification scheme and should not have any conflict of interest.
306. The certification body or entity and its assessment and certifying staff, whether directly employed by the certification body or entity or sub-contracted by it, should have no commercial, financial or any other interest in the aquaculture operation or chain of custody to be assessed other than for its certification services.
307. The certification body or entity should ensure that the personnel who conduct assessment in view of certification are different from the personnel which grant the certificate.
308. The certifying body or entity should not delegate authority for granting, maintaining, extending, reducing, suspending or withdrawing certification to an outside person or body.

Non-discrimination

309. Access to the services of the certification body or entity should be open to all types of aquaculture operations.
310. Access to the certification body or entity should not be conditional upon the size or scale of the aquaculture operations nor should certification be conditional upon the number of aquaculture operations already certified.

Human and financial resources

311. The certification body or entity should have adequate financial resources and stability for its conduct and should maintain appropriate arrangements to cover liabilities arising from its operations and/or activities.
312. The certification body or entity should employ a sufficient number of personnel having the necessary qualifications, training, technical knowledge, education and experience for performing conformity and/or chain of custody assessments in aquaculture.
313. Information on the relevant qualifications, training and experience of each member of the personnel involved in the certification process should be maintained by the certification body or entity. Record of training and experience should be kept up to date.
314. When a certification body or entity decides to sub-contract work related to certification, to an outside body or person other than work exempted in paragraph 132, the requirements for such an external body should be no less than for the certification body or entity itself. A properly documented contractual or equivalent agreement, covering the arrangements including confidentiality and conflict of interests, should be drawn up. A sub-contractor should be periodically audited and evaluated.

Accountability and reporting

315. The certification body or entity should be a legal entity and have clear and effective procedures for handling applications for certification of aquaculture operations and/or chains of custody for aquaculture products. In particular, the certification body or entity should maintain and provide to the applicants and certified entities:

- a detailed description of the assessment and certification procedure;
 - the documents containing the requirements for certification; and
 - the documents describing the rights and duties of certified entities.
316. A properly documented contractual or equivalent agreement describing the rights and duties of each party should be drafted between the certification body or entity and its clients.
317. The certification body or entity should conduct periodic internal audits covering all procedures in a planned and systematic manner to verify that the certification system is implemented and effective.
318. The certification body or entity may receive external audits on relevant aspects. The results of the audits should be accessible by the public.
319. The certification body or entity should have a policy and procedures for retaining records for a period consistent with its contractual, legal or other obligations. The records should demonstrate that the certification procedures have been effectively fulfilled, particularly with respect to application forms, assessment reports and other documents relating to granting, maintaining, extending, reducing, suspending or withdrawing certification. The records should be identified, managed and disposed of in such a way as to ensure the integrity of the process and confidentiality of the information. The certification body or entity should ensure that any changes to the agreed procedures are notified to all affected parties.
320. The certification body or entity should make appropriate, non-confidential documents available on request.

Certification fees

321. If the certification body or entity charges fees, it should maintain a written fee structure for applicants and certified aquaculture operations that should be available on request. In establishing the fee structure and in determining the specific fee of certification, the certification body or entity should take into account, *inter alia*, the requirements for accurate and truthful assessments, the scale, size and complexity of the aquaculture operation or chain of custody, the requirement of non-discrimination of any client, and the particular circumstances and requirements of small-scale farmers, developing countries and countries in transition.

Confidentiality

322. The certification body or entity should have adequate arrangements, consistent with applicable laws, to safeguard confidentiality of the information obtained in the course of its certification at all levels of its organization.
323. Where the law requires information to be disclosed to a third party, the client should be informed of the information provided, as permitted by the law. Otherwise information about a particular product or aquaculture operation should not be disclosed to a third party without a written consent of the client.

Maintenance of certification

324. The certification body or entity should carry out periodic surveillance and monitoring at appropriate intervals to verify that certified aquaculture operations and/or certified chains of custody continue to comply with the certification requirements.
325. The certification body or entity should require the client to notify it promptly of any intended changes to the management of the aquaculture, or the chain of custody, or other changes that may affect conformity to certification standards.
326. The certification body or entity should have procedures to conduct reassessments in the event of changes significantly affecting the status and management of the certified aquaculture operation, or the chain of custody, or if analysis of a complaint or any other information indicates that the certified aquaculture operation and/or the chain of custody no longer comply with the required standard and/or related requirements of the certification body or entity.
327. The period of validity of a certificate should not exceed five years. The assessment required for re-certification should give particular attention to changes made in the conduct of the aquaculture operation or in the management practices.

Renewal of certification

328. On the basis of proper monitoring and auditing, the validity of certification should be renewed for an agreed period, not to exceed five years, or more frequently if warranted by changes in the operation under certification.

Suspension and withdrawal of certification

329. The certification body or entity should specify the conditions under which certification may be suspended or withdrawn, partially or in total, for all or part of the scope of certification.
330. The certification body or entity should require that a certified aquaculture operation and/or chain of custody upon suspension or withdrawal of its certification (however determined), discontinues use of all advertising matter that contains any reference thereto and returns any certification documents as required by the certification body or entity. The certification body or entity should also be responsible for informing the public about the withdrawal or suspension after the appeals process is exhausted.

Maintaining the chain of custody

331. Chain of custody procedures are implemented at the key points of transfer. At each point of transfer, which may vary according to the type of aquaculture product traded, all certified aquaculture products must be identified and differentiated from non-certified aquaculture products.
332. The certification body or entity should ensure that a recipient of certified aquaculture products should maintain pertinent chain of custody records, including all records relating to shipment, receipt and invoicing.
333. The certification body or entity should have documented procedures defining auditing methods and periodicity of audits.

334. Any breach or apparent breach of the chain of custody identified during an inspection/audit should be explicitly recorded in the inspection/audit report together with:
- an explanation of the factors that allowed the breach to occur; and
 - an explanation of the corrective actions taken or required to deal with the product affected by the breach and to ensure that a similar breach does not occur again.
335. All inspection/audit records should be incorporated into a written inspection/audit report that is available to pertinent parties and filed at the office of the certification body or entity.
336. The inspection/audit report should contain, as a minimum:
- the date of the inspection/audit;
 - the name(s) of the person(s) responsible for the report;
 - the names and addresses of the sites inspected/audited;
 - the scope of the inspection/audit; and
 - comments on the conformity of the client with the chain of custody requirements.

Use and control of a certification claim, symbol, label or a logo

337. The owner of the certification scheme should have documented procedures describing the requirements, restrictions or limitations on the use of symbols, labels or logos indicating that an aquaculture product comes from a certified aquaculture operation. In particular, the certification scheme is required to ensure that symbols, labels or logos should not relate to claims that are of no relevance for certified aquaculture operations or products and could cause barriers of trade or mislead the consumer.
338. The owner of the certification scheme should not issue any license to affix its mark/claim/label/logo or issue any certificate for any aquaculture operations or products unless it is assured that the product bearing it is in fact produced from certified sources.
339. The certification body or entity, accreditation body or entity or owner of the certification scheme is responsible that no fraudulent or misleading use is made with the use and display of its certification mark, labels or logos.
340. If the certification body or entity, accreditation body or entity or owner of the certification scheme confers the right to use a symbol, label or logo to indicate certification, the aquaculture operation and any aquaculture product from it may use the specified symbol, label or logo only as authorized in writing by it.
341. The certification body or entity, accreditation body or entity or owner of the certification scheme should take suitable action to deal with incorrect references to the certification system or misleading use of symbols, labels and logos found in advertisements and catalogues.
342. All certificates issued should include:
- the name and address of the accreditation body or entity or owner of the certification scheme;
 - the name and address of the certification body or entity;

- the name and address of the certification holder;
- the effective date of issue of the certificate;
- the substance of the certificate;
- the term for which the certification is valid; and
- the signature and the stamp of the issuing officer.

Resolution of complaints and appeals

Policy and procedures

343. The accreditation body or entity or owner of the certification scheme should have written policy and procedures, applicable to accredited certification bodies, for dealing with any complaints and appeals from involved parties in relation to any aspect of the certification or de-certification. Such procedures should be timely, clearly define the scope and nature of appeals that will be considered and should be open only to parties involved in, or consulted during the assessment. Costs of appeals should be borne by the appellant.
344. These procedures should include an independent and impartial committee to respond to any complaint. If possible, the committee should attempt to resolve any complaint through discussion or conciliation. If this is not possible, the committee should provide a written finding to the certification body or entity, accreditation body or entity or owner of the certification scheme as appropriate, which should transmit the finding to the party or parties involved.
345. The above does not exclude recourse to other forms of legal and administrative processes as provided for in national and regional legislation or international law.

Keeping of records on complaints and appeals concerning certification

346. The certification body or entity, accreditation body or entity or promoter/owner of the certification scheme should:
- keep a record of all complaints and appeals, and remedial actions related to certification;
 - take appropriate corrective and preventive action;
 - assess the effectiveness of remedial actions; and
 - safeguard confidentiality of information obtained during the investigation and resolution of complaints and appeals concerning certification.
347. Information on procedures for handling of complaints and appeals concerning certification should be made publicly available.

SPECIAL CONSIDERATIONS FOR IMPLEMENTATION

348. National and relevant international organizations, whether governmental or non-governmental, the aquaculture industry and financial institutions should recognize the special circumstances and requirements of aquaculture producers and other stakeholders in developing countries, especially those in least-developed countries and small island developing states, to support the effective and progressive implementation of these guidelines. States, relevant intergovernmental and non-governmental organizations, buyers and traders,

and financial institutions should work to address these implementation needs, especially in the areas of financial and technical assistance, technology transfer, capacity building and training. Such assistance should also consider direct support towards the possible high costs of accreditation and certification.

349. Assistance is needed for building the capacity and enhancing the ability of stakeholders to participate in developing and complying with aquaculture certification schemes consistent with these guidelines. This includes ensuring that stakeholders have access to, and understanding of, these guidelines, as well as provisions of relevant international conventions and applicable standards that are essential for responsible aquaculture. Appropriate and up-to-date technologies may be required to comply with certification standards. Full benefit from such technologies would require extension, training, skill development and other local capacity building programmes for farmers and local communities and other stakeholders. Governmental and other institutions should support cooperation, especially at regional and sub-regional levels, in capacity building for developing and complying with aquaculture certification systems most suitable to their regions, and in the elaboration of mechanisms and protocols for the exchange of knowledge, experience and technical assistance in support of these objectives.
350. Different aquaculture certification schemes may be capable of meeting the same objective and to that extent may be equivalent. Memoranda of understanding, mutual recognition agreements, and unilateral recognition may be developed for mutual recognition of aquaculture certification schemes, all of which should include appropriate controls and verification of the certification systems involved. Tools and technical assistance may be required to ensure fairness, transparency and uniformity in developing agreements and monitoring that facilitates the development and implementation of aquaculture certification schemes consistent with the certification, accreditation and standards development procedures provided in these guidelines.
351. Notwithstanding the other provisions of this chapter, third-party certification schemes implemented in application of these guidelines should not replace related certification schemes or official certificates issued by States.
352. FAO will facilitate and monitor implementation of these guidelines on certification in aquaculture and promote exchange of knowledge and experience. Development agencies and donor institutions are encouraged to support FAO in facilitating financial and technical assistance to developing countries and countries in transition.