



منظمة الأغذية
والزراعة
للأمم المتحدة

联合国
粮食及
农业组织

Food
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pour
l'alimentation
et
l'agriculture

Продовольственная и
сельскохозяйственная
организация
Объединенных
Наций

Organización
de las
Naciones
Unidas
para la
Agricultura
y la
Alimentación

TECHNICAL GUIDELINES ON AQUACULTURE CERTIFICATION

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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. Aquaculture production and trade has 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.
4. 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 social issues have not been adequately subjected to compliance or certification as a prerequisite for international trading. At present, the aquaculture industry and market increasingly recognize that credible certification schemes have the potential to reassure buyers, retailers, consumers and civil society regarding these concerns and provide a further tool to support responsible and sustainable aquaculture.

TERMS AND DEFINITIONS

5. 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, 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 gives formal recognition that a qualified body or person is competent to carry out specific tasks.

(Based on ISO/IEC Guide 2:1996, 12.11)

Accreditation body

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

(Based on ISO Guide 2, 17.2)

¹ Food and Agriculture Organization of the United Nations

² International Standards Organization,

³ Codex Alimentarius Commission

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.

(Based on ISO Guide 2, para. 17.1)

Aquaculture

The farming of aquatic organisms including fish, molluscs, crustaceans and aquatic plants. Farming implies some sort of intervention in the rearing process to enhance production, such as regular stocking, feeding, protection from predators, etc. Farming also implies individual or corporate ownership of the stock being cultivated, the planning, development and operation of aquaculture systems, sites, facilities and practices, and the production and transport.

(Modified from TGRA-5 p.6)

Better Management Practice(s) (BMP(s))

Management practices aimed at improving the quantity, safety and quality of products taking into consideration animal health and welfare, food safety, environmental and socio-economical sustainability. BMP implementation is generally voluntary. The term “better” is preferred rather than “best” because aquaculture practices are continuously improving (today’s ‘best’ is tomorrow’s ‘norm’).

(Adapted from the International shrimp principles by the Consortium “Shrimp Farming and the Environment”.)

Certification

Procedure by which an official certification body or officially recognised certification body 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 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, including the labelling of practices, operations and products.

(Adapted from Bangkok Workshop Report)

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.

Codex Alimentarius

The Codex Alimentarius is a collection of internationally recognized standards, codes of practice, guidelines and other recommendations relating to foods, food production and food safety and quality under the aegis of consumer protection. These texts are developed and maintained by the Codex Alimentarius Commission (CAC), a body established in 1963 by the FAO and the World Health Organization (WHO). The Commission's main aims are to protect the health of consumers and ensure fair practices in the international food trade. The Codex Alimentarius is recognized by the World Trade Organization, under the Agreement on the application of sanitary and phytosanitary measures, as the international organization setting standards, guidelines and recommendations with respect to food safety and quality and consumer protection.

Conflict of Interest

A situation in which a person or body in a position of trust has competing interests that make it difficult to fulfill a role impartially. A conflict of interest exists even if no unethical or improper act results from it. A conflict of interest can create an appearance of impropriety that can undermine confidence in a certification system.

Conformity assessment

Any activity concerned with determining directly or indirectly that relevant requirements are fulfilled. Typical examples of conformity assessment activities are sampling, testing and inspection; evaluation, verification and assurance of conformity (supplier's declaration, certification); registration, accreditation and approval as well as their combinations. Conformity assessment procedures are technical procedures — such as testing, verification, inspection and certification — which confirm that products fulfil the requirements laid down in regulations and standards.

(Modified from ISO Guide 2, 12.2)

Equivalence

Equivalence is the capability of different inspection and certification systems to meet the same objectives and should be recognised by exporting and importing countries as such. Equivalence may be confirmed by auditing the relevant inspection and certification systems and, as appropriate, the facilities and procedures in the exporting country.

(Codex Alimentarius Commission)

Genetically modified organism (GMO)

An organism that has been transformed by the insertion of one or more transgenes.

(FAO)

Group certification

Certification for a group of farmers, normally considered for small-scale aquaculture farmers, for whom individual certification is cost prohibitive and who have key characteristics in common, e.g. common marketing of the produce as a group, homogeneity of members in terms of location, production system, products, the group has an Internal Control System to ensure compliance with the standards by all members of the group. The group of facilities or operations that are considered collectively may: a) be in close proximity to each other, b) share resources or infrastructure (e.g. water sources or effluent discharge system), c) share a landscape unit (e.g. watershed), d) have the same

production system, e) involve the same farmed species; or f) other common characteristics as appropriate.

Guidelines/Technical Guidelines

Documents that provide guidance on implementation of Codes of Conduct, Codes of Practice, certification principles, criteria and standards.

Precautionary approach

A set of agreed measures and actions, including future courses of action that ensures prudent foresight and reduces or avoids risk to the resource, the environment, and the people, to the extent possible, taking into account existing uncertainties and the potential consequences of being wrong.

(Adapted from FAO)

Product certification

Verification that a certain product has passed performance and/or quality assurance tests or qualification requirements stipulated in standards or regulations or that it complies with a set of criteria governing quality and/or minimum performance requirements.

Responsible aquaculture

Aquaculture conducted according to the principles provided in the FAO Code of Conduct for Responsible Fisheries.

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. Depending on the production systems used, other considerations include production technology; resources; number of workers, including owner; economics, including annual income; relative importance of aquaculture as contributor to total income; ownership. Small-scale aquaculture farms are typically: 1) family sized operations; 2) using family labour; 3) based on the family's land; and 4) owner operated. Small-scale aquaculture may be diffused through a local area or district, or highly concentrated around specific resource (e.g. water supply or processing plant).

(Adapted from Bangkok Workshop Report)

Small-scale farmers

Resource poor individuals or groups of people involved in small-scale aquaculture production, i.e. aquaculture production facilities and processes with small production volume, and/or relatively small surface area, and typically lacking technical and financial capacity and other resources to support individual certification.

(Adapted from Bangkok Workshop Report)

Socially responsible aquaculture

Aquaculture that is developed and operated in a responsible manner, i.e. that benefits the farm, the local communities and the country; that contributes effectively to rural development, and particularly poverty alleviation; has employees who are treated fairly; maximizes benefits and equity; minimizes conflicts with local communities; ensures worker welfare and fair working conditions; minimizes risks to smallholders; and provides training to workers in responsible aquaculture practices.

(Adapted from the International shrimp principles by the Consortium “Shrimp Farming and the Environment” Principle 8)

Stakeholder

An individual or group of individuals, whether at institutional or personal level, who has an interest or claim that has the potential of being impacted by or having an impact on a given activity. This interest or claim can be stated or implied and direct or indirect. Stakeholders and stakeholder groups can be at the household, community, local, regional, national, or international levels.

Standard

Document approved by a recognized organization or entity, 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.

(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)

Third Party Certification

*Procedure by which an accredited external, independent, certification body, which is not involved in standards setting or has any other conflict of interest, analyzes the performance of involved parties, and reports on compliance. This is in contrast to **first party certification** (by which a single company or stakeholder group develops its own standards, analyzes its own performance, and reports on its compliance and **second party certification** (by which an industry or trade association or NGO develops standards, analyzes the performance of involved parties, and reports on compliance).*

(Adapted from Bangkok Workshop Report)

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. The documentation and other evidence by which a certified product can be traced back from each buyer to each supplier through the chain of custody all the way to the certified production area from which it originated.

(Adapted from ISO; MAC HHT Standard; Bangkok Workshop Report)

Transparency

While respecting legitimate concerns to preserve confidentiality, certification systems should be open to scrutiny by consumers and their representative organizations, and other interested parties. Transparency seeks to achieve a greater degree of clarity,

predictability and information. Transparency also implies answering reasonable questions and publishing information and standards. Transparency refers to a process that is open, inclusive, well documented and includes proactive communication to stakeholders and public disclosure of the process, decisions and results.

(Adapted from Bangkok Workshop Report)

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.

SCOPE

6. These guidelines provide guidance for the development, organization and implementation of credible aquaculture certification schemes.
7. The guidelines cover the range of issues which should be considered relevant for the certification in aquaculture including: a) animal health and welfare, b) food safety and quality, c) environmental integrity and/or d) social responsibility associated with aquaculture. An aquaculture certification scheme may address one or all of these issues.
8. 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 social responsibility 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.
9. Credible aquaculture certification schemes consist of three main components: (i) standards; (ii), accreditation, and (ii) 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.
10. Developing and implementing a certification scheme may be undertaken by any entity qualified to do so in accordance with the requirements of these guidelines. The entities that may undertake standard setting, accreditation, or certification include, *inter alia*, Governments, NGOs, private sector groups (e.g. producer or trade associations), civil society arrangements, or consortia comprising some or all of these different stakeholder groups, as long as there is no conflict of interest for any of the entities involved. The guidelines provide information on the institutional and organisational arrangements, including governance requirements, for aquaculture certification.

USERS

11. Direct users of these guidelines are entities that develop and implement (or are already implementing) a certification scheme for aquaculture such as: a) standard setting bodies, b) accreditation bodies, c) certification bodies, and/or d) an entity that is undertaking more than one of these functions, without having a conflict of interest.
12. These entities should use these guidelines in developing, implementing or revising certification schemes that seek to address any or all of the following issues: a) animal health and welfare, b) food safety and quality, c) environmental integrity, and d) social responsibility.
13. Indirect users of these guidelines are the stakeholders with an interest in certification schemes such as aquaculture producers and other parts of the aquaculture industry, as well civil society groups, government agencies, and other concerned parties (e.g. intergovernmental bodies, funding institutions). The stakeholders of a particular certification scheme will depend on the objectives of the scheme, e.g. geographic scope, production systems covered, issues addressed.

APPLICATION

14. The guidelines should be applied by the direct users of the guidelines, (i.e. a standard setting body or entity, an accreditation body or entity, or a certification body or entity) to ensure that their efforts to develop and implement a certification scheme are in accordance with the principles, considerations, relevant minimum substantive requirements and institutional and procedural requirements in the guidelines.
15. 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.
16. If the entities responsible for an 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 undertake an evaluation of the scheme themselves, or seek an appropriate body to do so.
17. 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 considerations have been addressed.
 - Whether the objectives of the scheme and issue areas have been addressed in accordance with the appropriate minimum substantive requirements.

- Whether the standard setting, accreditation and/or certification have been developed and implemented in accordance with the institutional and procedural requirements.

PRINCIPLES

18. Aquaculture certification schemes:

- a. 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. must recognise that any person or entity undertaking aquaculture activities is obliged to comply with all national laws and regulations and international agreements developed and agreed by governments in relation to aquaculture.
- c. must be developed based on the best scientific evidence available (or use meaningful proxies when such data is not available), taking into account traditional knowledge, providing that its validity can be objectively verified. They must ensure that short-term aquaculture development considerations do not compromise the ability to responsibly address long-term concerns or cumulative impacts.
- d. must be developed and implemented in a transparent manner and must ensure that there is no conflict of interest among the entities that are responsible for standards setting, accreditation, and certification. These entities must facilitate mutual recognition, strive to achieve harmonization and recognise equivalence, based on the requirements and criteria outlined in these guidelines.
- e. must be open to scrutiny by consumers, civil society, and their respective organisations and other interested parties, while respecting legitimate concerns to preserve confidentiality.
- f. must be credible and robust, be fully effective in achieving their designated objectives, and must establish and maintain the confidence of the farmers and industry operators participating in the scheme, as well as the confidence of other stakeholders, including consumers, governments and civil society groups.
- g. must promote responsible aquaculture during production, including the use of inputs such as seeds and feed, harvesting and post-harvest handling.
- h. must ensure traceability of certified aquaculture products and processes; promote continuous and measurable improvements in performance; and establish clear accountability for all involved parties, including the owners of certification schemes, auditors and the certification bodies, in conformity with international requirements, as necessary.
- i. must not discriminate against any group of farmers practicing 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.

- j. must strive and encourage responsible trade, should not create unnecessary obstacles to trade, and should facilitate market access.
- k. must ensure special considerations are provided to address the interests of resource poor small-scale farmers, especially the financial costs and benefits of participation.
- l. must recognize the special needs for developing countries, i.e. developed country importers should take into account the inadequate capabilities of developing countries and provide the necessary assistance with implementation.

MINIMUM SUBSTANTIVE CRITERIA

19. Minimum substantive criteria for developing aquaculture certification standards are provided in this section for a) animal health and welfare, b) food safety and quality, c) environmental integrity and d) social responsibility. The extent to which a certification scheme seeks to address the issues in all or some of these four areas 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 Welfare

20. Aquaculture activities should be conducted in a manner that assures the health and welfare of farmed aquatic animals, by optimizing health, minimizing stress, reducing aquatic animal disease risks and maintaining a healthy culture environment at all phases of the production cycle.

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

- 21. Aquaculture facilities/operations should prepare and implement an aquatic animal health management programme in compliance with relevant national and international legislation.
- 22. Trade in aquatic animals, animal genetic material and animal products should comply with the provisions in the OIE Aquatic Animal Health Code to prevent introduction and/or transfer of diseases and infectious agents pathogenic to aquatic animals.
- 23. Movement of live aquatic animals and setting up of health management programmes should take into account the practices described in the FAO CCRF Technical Guidelines on Health Management for Responsible Movement of Live Aquatic Animals.
- 24. Preference should be given for the use of aquatic animals certified healthy and/or free of serious pathogens in aquaculture.
- 25. Maintenance of an healthy culture environment at all phases of the production cycle to reduce risks of aquatic animal disease before they occur by:

- Thorough preparation of the culture facilities before stocking (e.g. system disinfection and fallowing according to the OIE Aquatic Animal Health Code).
 - Maintenance of optimal environmental conditions through management of stocking densities, aeration, feeding, water exchange, phytoplankton bloom control, etc., as appropriate.
 - Employment of effective quarantining where necessary
 - Implementation of health management practices that reduce animal stress.
 - Routine monitoring for early detection of aquatic animal health problems.
 - Implementation of management practices that avoid or reduce the likelihood of disease transmission within and between aquaculture facilities or to the natural aquatic fauna.
26. Minimal and responsible use of veterinary drugs and antibacterials, and implementation of management strategies that avoid or reduce the release of excess quantities of chemicals, drugs, antibacterials and vaccines into the surrounding environment.
27. Treating any disease immediately and effectively using recommended efficient procedures, with the minimal use of permitted chemicals, veterinary drugs and antibacterials.
28. Careful consideration of species use in polyculture or integrated multi trophic aquaculture to reduce potential stress and suffering of culture species.
29. Implementation of measures to reduce unnecessary stress and suffering of animals during culture, harvest, in transit, at market or at a place of slaughter, as appropriate.
30. Workers should be trained on good aquatic animal health management practices to ensure they are aware of their role and responsibility in maintaining aquatic animal health and welfare in aquaculture.

Food Safety and Quality

31. Aquaculture activities should be conducted in a manner that ensures food safety and quality by implementing appropriate standards and regulations as defined by FAO/WHO *Codex Alimentarius*, and in related codes of practice and guidelines developed within the context of the *Codex Alimentarius* Commission and any other relevant organizations.

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

32. Aquaculture facilities should be located in areas where the risk of contamination by biological, chemical, or physical food safety hazards is minimized and where sources of pollution can be controlled. Potential sources of contamination from the surroundings (e.g. agricultural farms, industries, sewage) should be evaluated and considered and management measures should be put in place to control risks. Aquaculture should not be carried out in areas where the presence of potentially harmful substances would lead to an unacceptable level of such substances in aquaculture products.
33. Where feed is used, aquaculture operations should include procedures for avoiding feed contamination and promoting efforts that improve selection and use of appropriate feeds

and feed additives. 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. This should be assured by the feed producer or subjected to hazard analysis. Feeds should be handled and stored in such a way to prevent spoilage, mould growth and contamination. If fish silage, trash fish and offal from fish are used as feed, these should be properly treated to eliminate potential hazards to human health.

34. Apart from major nutritional ingredients; feed which is manufactured or prepared on the farm should contain only substances permitted by the competent national authority. Such substances include feed additives, growth promoting substances, fish flesh colouring agents, anti-oxidizing agents, anti-caking agents or veterinary drugs. Medicated feeds should be clearly identified in the package and stored separately, in order to avoid mis-application.
35. All veterinary drugs and chemicals for use in aquaculture should comply with national regulations and international guidelines. Wherever applicable, veterinary drugs and chemicals should be registered with the competent national authority. Control of diseases with drugs should be carried out only on the basis of an accurate diagnosis. Products should only be prescribed and distributed by personnel authorized under national regulations. Authorised 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 antibacterials, veterinary drugs and/or chemicals should not be used in aquaculture production, transportation or product processing.
36. Water used for aquaculture should be of a quality suitable for the production of food which is safe for human consumption. Farms should not be sited where there is a risk of contamination of the water in which animals are reared by chemical or biological hazards. If wastewater is used, the WHO guidelines for the use of wastewater in aquaculture should be followed.
37. The source of broodstock and seed for culture (larvae, post larvae, fry and fingerling, etc) should be such to avoid the carryover of potential hazards (e.g. antibiotics, parasites, etc.) into the growing stocks.
38. 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 (dosage and withdrawal times), additives, chemicals.
 - The use of inputs.
 - Type, concentration, dosage and withdrawal times of veterinary drugs and antibacterials.
39. 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.

- HACCP principles should be applied during culture to ensure good hygienic culture conditions and safety and quality of aquaculture produce.
 - 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 safety hazards.
 - Equipment such as cages and nets should be designed and constructed to ensure minimum physical damage of the animals.
 - All equipment and holding facilities should be easy to clean and to disinfect and should be cleaned and disinfected regularly and as appropriate.
 - Diseased aquatic animals should be quarantined when necessary and appropriate and dead animals should be disposed of in a sanitary manner.
 - Appropriate techniques for harvesting, storing and transportation of aquaculture products should be applied to minimize contamination, physical damage and stress.
40. Identification, classification and monitoring programs should be implemented in bivalve molluscs growing areas to prevent contamination from microbiological and chemical hazards and from biotoxins.
41. Workers should be trained on good hygienic practices to ensure they are aware of their role and responsibility for protecting aquaculture products from contamination and deterioration

Environmental Integrity

42. Aquaculture should be planned and practiced in an environmentally responsible manner, in accordance with appropriate national and international rules and regulations.
43. Aquaculture can impact on the environment in various ways including: a) biodiversity, habitats and ecosystems, b) genetic diversity including GMOs, c) endangered species, exotic species, alien and migratory species, d) natural fish stocks and species and the associated ecosystems, and e) water, soil and air quality. Aquaculture certification schemes should ensure these impacts are identified and managed or mitigated to an acceptable level.
44. 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.
45. Certification should consider application of the “precautionary approach”, i.e. the absence of adequate scientific information should not be used as a reason for postponing or failing to take corrective (or appropriate) measures to address environmental impacts.
46. Use of “Risk Analysis”, i.e. relevant uncertainties should be taken into account through a suitable scientific method of assessing the likelihood and magnitude of impacts. Appropriate reference points should be determined and remedial actions taken if reference points are approached or exceeded.

47. “Polluter Pays” principle, i.e. those who cause pollution or contamination are responsible for its effects and compensate for the damage incurred and/or rehabilitation efforts and by taking measures to avoid creating further pollution, which apply up to the limits prescribed by national and international laws.

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

48. Certification schemes should identify and support management of the most probable adverse environmental impacts.
49. Environmental impact assessments should be employed, according to national legislation, prior to approval of aquaculture operations.
50. Aquaculture planning, development and operational practices should ensure that associated environmental integrity issues are effectively and adequately addressed.
51. Routine monitoring of on-farm and off-farm environmental quality, combined with good record keeping, use of appropriate methodologies and community participation.
52. Evaluation and mitigation of the impacts on surrounding natural ecosystems including fauna, flora and habitats of high conservation value.
53. Efficient water extraction and use and responsible effluent management measures to reduce impacts on surrounding land and water resources.
54. Encourage restoration of damages impacted by previous uses of the aquaculture site.
55. Responsible use of hatchery produced seed for culture, where possible. Seed from the wild should only be used when collected using responsible practices.
56. Minimise escape of all cultured species into natural habitats.
57. Encourage the use of native species where appropriate, whilst minimizing their escape to the wild.
58. Exotic species are only used when they pose low potential risk to the natural environment, biodiversity and ecosystem health.
59. Non-use of GMOs that risk compromising biodiversity and human health.
60. Responsible construction of infrastructure and disposal of waste from aquaculture.
61. Responsible use of feeds, feed additives, manure and fertilizer that improves net energy conversion and economic viability.
62. Responsible use of chemicals, veterinary drugs and antibacterials.
63. Responsible use of energy to reduce negative environmental impacts.

Social Responsibility

64. Aquaculture should be conducted in a socially responsible manner, within national rules and regulations, to benefit aquaculture workers, local communities, investors and the country. Aquaculture should contribute effectively to rural development, poverty alleviation and food security and deliver benefits to the local community and surrounding resource users.

Minimum substantive criteria for addressing social responsibility in aquaculture certification schemes:

65. Certification should seek to support development among rural farming communities, and not lead to marginalisation of small-scale aquaculture farmers or exclusion from market chains and trade of certified aquaculture products from small-scale farmers.

66. Socio-economic issues should be considered at all stages of aquaculture planning, development and operation, in order to maximize benefits and equity and to minimize any negative economic consequences to workers and/or communities.

67. Gender and generation issues, impacts on women and youth, and opportunities for women and youth should be identified, evaluated and addressed during planning, development and operation of aquaculture.

68. Workers must be treated responsibly within the national labor rules and regulations and international labor conventions as appropriate. Child labor should never be used outside of the existing ILO conventions and standards.

69. Workers should be paid wages and provided other welfare facilities according to national rules and regulations.

70. Special efforts should be made to ensure participation of resource poor small-scale farmers in certification schemes.

71. Social requirements should not create unnecessary obstacles to trade, and should facilitate market access.

72. The special concerns and interests of resource poor small-scale farmers should be considered, especially the financial costs and benefits of participation.

73. Investment in the costs of transition for small-scale farmers to enter and participate in certified market chains by public and private sectors should be facilitated.

74. The importance of corporate social responsibility in engaging small-scale farmers and other small-scale stakeholders in market chains should be recognized.

INSTITUTIONAL AND PROCEDURAL REQUIREMENTS

75. The institutional and procedural requirements for establishing and implementing credible aquaculture certification schemes are presented here in four parts: 1) Governance, 2) Standards Setting, 3) Accreditation and 4) Certification.

76. 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.
77. The guidance presented here draws on other internationally accepted guidance, especially those produced by the International Organization for Standardization (ISO) and the International Social and Environmental Accreditation and Labeling Alliance (ISEAL), and the Codex Alimentarius Commission (CAC).

Governance

78. The procedures used and institutions involved in establishing and implementing a certification scheme should be transparent, credible and robust with good governance.
79. The initiative for establishing a certification scheme could be taken by a government, an intergovernmental organization, a non-governmental organization, a private industry association or a consortium or partnership of one or more of these. There are also various options for the geographical range of a scheme. It could be national, regional or international in scope. It is essential that the owner of a certification scheme is not directly engaged in its operational affairs, i.e. undertaking accreditation or certification, to avoid conflicts of interest.
80. The owner or developer of a 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.
81. The owner or developer of a certification scheme should have clear written procedures to guide the decision-making process.
82. Certification must be handled by an organization (certification body or entity) that has been specifically set up for this purpose. It could be 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

83. 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 and quality, environmental integrity and/or social responsibility in aquaculture.

Normative basis

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

- WTO Agreement on technical barriers to trade
- WTO TBT. Annex 3 *Code of Good Practice for the Preparation, Adoption and Application of Standards*.
- 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 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.
- ISEAL. *ISEAL Code of Good Practice for Setting Social and Environmental Standards*. 2006.

Functions and organizational structure

85. 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.

86. 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.

87. 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

88. Transparency in the setting of standards is essential. Transparency helps ensure 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. Special effort should be made to ensure adequate participation of relevant stakeholders in the standard setting process. Stakeholder participation in the standard setting process should not be restricted and open to comment.

89. 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.
90. On a regular basis as appropriate, the standards setting body or entity should publicize its work programme as widely as possible.
91. 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.
92. 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

93. 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 include representatives of the aquaculture industry (input suppliers, producers, processors, traders and retailers), aquaculture workers organizations, the scientific community, community groups, environmental interest groups, accreditation and certification bodies, consumer groups, governments and governmental organizations.
94. 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

95. The standards setting process should seek to:
 - Include international reference standards in animal health and welfare, food safety and quality, environmental integrity and social responsibility.
 - Identify and review comparable systems.
 - Identify research needs and knowledge gaps.
 - Include requirements of relevant international agreements.
 - Engage in mutual recognition and equivalence agreements.

Notification provisions

96. 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.

97. 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

98. 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

99. 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.

100. 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.

101. 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

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

Accreditation

Purpose

103. 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 and quality, environmental integrity and social responsibility 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

104. 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.
105. 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 nondiscriminatory, impartial and accurate manner, an accreditation body or entity should fulfill, *inter alia*, the following requirements.

Requirements

Non-discrimination

106. 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.
107. 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

108. 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).
 - Not delegate authority for granting, maintaining, extending, reducing, suspending or withdrawing accreditation to an outside person or body.

Human and financial resources

109. 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.
110. The accreditation body or entity should employ a sufficient number of personnel having the necessary ~~education~~, training, technical knowledge and experience for performing accreditation functions in aquaculture.
111. 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.
112. When an accreditation body or entity decides to subcontract work related to accreditation 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

113. 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,
 - The documents describing the rights and duties of accredited bodies.
114. A properly documented contractual or equivalent agreement describing the responsibilities of each party should be drafted.
115. The accreditation body or entity should have:
 - Defined objectives and commitment to quality.
 - Procedures and instructions for quality documented in a quality manual.
 - An established effective and appropriate system for quality.
116. 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.
117. The accreditation body or entity may receive external audits on relevant aspects. The results of the audit should be accessible by the public.
118. 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.

119. 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.
- The actions taken to correct identified nonconformities including, where applicable, those identified at previous assessments.

120. 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

121. 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.

122. 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.

123. 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.
- Safeguard confidentiality of information obtained during the investigation and resolution of complaints.

124. Information on procedures for handling complaints concerning accreditation should be made publicly available.

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

Confidentiality

126. 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.

127. 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

128. The accreditation body or entity should have arrangements to define period of accreditation of a certifying body or entity, with clear monitoring procedures.
129. 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.
130. 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.
131. 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 periodicity for carrying out reassessments should be appropriate.

Suspension and withdrawal of accreditation

132. 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

133. 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.
134. It should take account of views expressed by interested parties before deciding on the precise form and effective date of the changes.
135. 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.
136. 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

137. The provisions on the use and control of a certification claim, symbol, label or logo are addressed in the following section on certification.

138. 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.
139. 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.
140. 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

141. 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

142. 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.
143. 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).
144. 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*.

Functions and structure

145. 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

146. 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.

147. 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.

148. 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.

149. 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

150. Access to the services of the certification body or entity should be open to all types of aquaculture operations.

151. 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

152. 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.

153. The certification body or entity should employ a sufficient number of personnel having the necessary qualifications, training, technical knowledge and experience for performing conformity and/or chain of custody assessments in aquaculture.

154. 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.

155. When a certification body or entity decides to sub-contract work related to certification to an outside body or person, 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.

Accountability and reporting

156. 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.
- The documents describing the rights and duties of certified entities.

157. 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.

158. 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.

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

160. 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.

161. The certification body or entity should make appropriate, non-confidential documents available on request.

Certification fees

162. 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

163. 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.
164. 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

165. 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.
166. 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.
167. 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.
168. The period of validity of a certificate should be appropriate for an aquaculture operation and a chain of custody. 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

169. On the basis of proper monitoring and auditing, the validity of certification should be renewed up to an agreed period.

Suspension and withdrawal of certification

170. 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.
171. 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

172. 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.
173. 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.
174. The certification body or entity should have documented procedures defining auditing methods and periodicity of audits.
175. 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.
 - 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.
176. 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.
177. 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.
 - 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

178. The certification body or entity, accreditation body or entity or 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.
179. The certification body or entity, accreditation body or entity or 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.

180. 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.
181. 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.
182. 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.
183. 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.
 - The signature of the issuing officer.

Resolution of complaints and appeals

Policy and procedures

184. The accreditation body or entity or owner of the certification scheme should have a 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.
185. 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.
186. The above does not exclude recourse to other forms of legal and administrative processes as provided for in national legislation or international law.

Keeping of records on complaints and appeals concerning certification

187. 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.
- Safeguard confidentiality of information obtained during the investigation and resolution of complaints and appeals concerning certification.

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

IMPLEMENTATION

189. 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 countries, to support the effective 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.

190. 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.

191. Different aquaculture certification schemes may be capable of meeting the same objective and are therefore equivalent. Memoranda of understanding, mutual recognition agreements, equivalence agreements and unilateral recognition may be developed for recognition of equivalence of aquaculture certification schemes, all of which need to 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 equivalence 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.

192. FAO will facilitate and monitor implementation of these guidelines on certification in aquaculture.