**FAO Fisheries Report No. ##**

**Report of the**

# BANGKOK FAO/NACA/GOVERNMENT OF THAILAND EXPERT WORKSHOP ON GUIDELINES FOR AQUACULTURE CERTIFICATION

**Bangkok, Thailand**
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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
THE NETWORK OF AQUACULTURE CENTRES IN ASIA-PACIFIC
DEPARTMENT OF FISHERIES THAILAND

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**ABSTRACT**

Aquaculture is growing and expected to help meet the global demand for aquatic products in the years to come. As a major producing sector, aquaculture faces major challenges in maintaining sustainability. Driven by concerns that some forms of aquaculture (mainly shrimp and salmon) can be environmentally unsustainable, socially inequitable, and that some products are not safe for consumers, over the years there have been attempts to respond to the consequent public perceptions and market requirements. Certification and ecolabelling has been one of them. At its third session in 2006, The COFI Sub-Committee on Aquaculture, while recognizing value of certification for increasing public and consumer confidence in aquaculture production practices and products, also noted that many non-governmental certification schemes have resulted in higher costs for producers without delivering significant price benefits to small-scale producers, and stated that there was a need for more globally accepted certification guidelines for aquaculture production, which could provide more guidance and serve as a basis for improved harmonization and facilitate mutual recognition and equivalence of such certification schemes. Two joint FAO and NACA (Network of Aquaculture Centres in Asia Pacific) Workshops on "*Guidelines for Aquaculture Certification*" are planned in Thailand and Brazil (hosted by the Kingdom of Thailand and the Government of Brazil). The first Expert Workshop on Guidelines for Aquaculture Certification was held in Bangkok Thailand, from 27-30 March 2007. The Expert Workshop build consensus on a framework for the Guidelines and agreed on a road map for its development. This document presents the information generated during the first Expert Workshop.

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## INTRODUCTION

1. Global production from aquaculture has grown substantially, contributing increasingly significant quantities to the world's supply of fish for human consumption. This increasing trend is projected to continue in forthcoming decades. It is envisioned that the sector will contribute more effectively to food security, poverty reduction and economic development by producing - with minimum impact on the environment and maximum benefit to society - 83 million tonnes of aquatic food by 2030, an increase of 37.5 million tonnes over the 2004 level[1].

2. Aquaculture has an important role to play in global efforts to eliminate hunger and malnutrition through supplying fish and other aquatic products rich in protein, essential fatty acids, vitamins and minerals. Aquaculture can also make significant contributions to poverty reduction by improving incomes, providing employment opportunities and increasing returns on resource use. With appropriate management, the sector appears ready to meet the demand gap for aquatic food (fish) for the coming decades, a consequence of the increasing global population and stagnant capture fishery production. The main challenge for policy makers and development agents is to create an "enabling environment" to support the expansion needed to meet this potential. This enabling environment is multi-faceted and requires significant political will, policy support and investment. The failure to provide this environment may result in the inability for the fisheries sector to provide the supply of aquatic food required to even maintain current levels of consumption.

3. The increasing recognition by governments to implement aquaculture programs based on sound policies, the growth in population and increasing purchasing power of people, the opening of new markets facilitated by trade liberalization, and the technological advances bring greater opportunities for further development of the sector. On the other hand, the stagnating level of capture fisheries, the need to further strengthen capacities of institutions and other stakeholders, the increasing consumer demand for diversified, safe and quality aquatic products, the scarcity of land and water resources, and the need to support small-scale farmers pose major challenges to the sector.

## AQUACULTURE CERTIFICATION

4. Over the years there have been attempts to respond to the public perceptions and market requirements for sustainable aquaculture practices and products. Food safety standards have been elevated and international trade regulations tightened. Policy and regulations governing environmental sustainability have been put in place in many countries, requiring aquaculture producers to comply with more stringent environmental mitigation and protection measures. In some countries these changes were initiated by the aquaculture sector itself, usually within the more organized private industry sector to ensure its sustainability and protect operations from poorly managed activities. The private sector has made significant advances in the management of its activities and there are many examples of improved management of farming systems that have reduced environmental impacts and improved efficiency, including profitability, in all regions.

5. Owing to the need for responding to these environmental and consumer concerns on aquaculture production and in order to secure better market access, there is increasing interest in certification of aquaculture production systems, practices, processes and products from aquaculture. For example, recent legislation in both Europe and the United States of America require mandatory identification of aquatic products, whether they are cultured or captured. These markets increasingly recognize that some form of certification is a way of assuring buyers, retailers, and consumers that fishery products are safe to consume and originate from aquaculture farms or capture fisheries adopting responsible management practices. Certification has been introduced to capture fisheries for some time. Guidelines for eco-labelling of capture fishery products have been developed by FAO in 2005[2] and efforts are being made to develop eco-labelling guidelines for inland fisheries[3]. There is a need for harmonization of fish quality and safety standards within aquaculture, implying increased development and wider use of internationally agreed, scientifically-based standards is necessary.

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[1] State of World Aquaculture:2006. *Fisheries Technical Paper No. 500.* Rome FAO. 2006 134p.

[2] FAO. Guidelines for Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries. Rome., FAO. 2005. 90p.

[3] Expert Consultation - Guidelines on Ecolabelling of Fish and Fishery Products from Inland Fisheries Rome, Italy. 23 May 2006- 26 May 2006

6. The principles of achieving harmonization of standards and equivalency in food control systems and the use of scientifically-based standards are embodied in two binding agreements of the World Trade Organization (WTO): the Agreement on the application of sanitary and phytosanitary (SPS) measures and the Agreement on technical barriers to trade (TBT). The SPS agreement confirms the right of WTO member countries to apply measures necessary to protect human, animal and plant life and health. The objective of the TBT Agreement is to prevent the use of national or regional technical requirements, or standards in general, as unjustified technical barriers to trade. The agreement covers standards relating to all types of products including industrial products and quality requirements for foods (except requirements related to SPS measures).

7. An important aspect of certification is food quality and safety. FAO's normative work in food safety and quality is focused on food standards linked to the Codex Alimentarius and developed in close collaboration with the World Health Organization (WHO), and related capacity-building. Codex Alimentarius includes standards for all principal foods (whether processed, semi-processed or raw) for distribution to the consumer, with provisions related to food hygiene, food additives, pesticide residues, contaminants, labelling, presentation, methods of analysis and sampling. The Codex Secretariat, housed in the FAO Food and Nutrition Division (ESN), has primary responsibility for normative work on food safety.

8. In several countries, aquaculture producers are introducing environmental certification of aquaculture products, either individually or in a coordinated manner, in order to credibly demonstrate that their production practices are non-polluting, non-disease transmitting and/or non-ecologically threatening[4,5]. Some countries are attempting to introduce state-mediated certification procedures to certify that aquaculture products are safe to consume and farmed in accordance with certain environmental standards[6]. Most of the work done on improved management has been on salmon and shrimp, mainly due to their high commodity value, cost absorption capacity and the importance attached as the most internationally traded products.

**RECOMMENDATIONS BY THE FAO COMMITTEE ON FISHERIES SUB-COMMITTEE ON AQUACULTURE**

9. The FAO Committee on Fisheries Sub-Committee on Aquaculture, while recognizing value of BMPs and certification for increasing public and consumer confidence in aquaculture production practices and products, also noted that many non-governmental (private sector) certification schemes have resulted in higher costs for producers without delivering significant price benefits to small-scale producers. It was pointed out that the costs of such schemes were disadvantageous to small-scale producers, adding to the costs of market access, and recognized that there are different needs between small-scale and large-scale producers and that these differences should be adequately addressed. The Sub-Committee commented that the emergence of a wide range of certification schemes and accreditation bodies was creating confusion amongst producers and consumers alike and stated that there was a need for more globally accepted norms for aquaculture production, which could provide more guidance and serve as a basis for improved harmonization and facilitate mutual recognition and equivalence of such certification schemes.

10. Within the context of the application of the FAO Code of Conduct for Responsible Fisheries (CCRF), the Sub-Committee requested FAO to organise an Expert Workshop/Consultation to make recommendations regarding the development of harmonised shrimp farming standards and review certification procedures for global acceptance and transparency, which will also assist in elaborating norms and reviewing the diverse options and relative benefits of these approaches. In this regard, the Sub-Committee encouraged FAO to play a lead role in facilitating the development of guidelines which could be considered when national and regional aquaculture standards are developed. Several members of the Sub-Committee as well as a number of inter-governmental organizations offered to cooperate at national, regional and international level, and requested FAO to provide a platform for such collaboration. The Sub-Committee also requested setting up of an expert group on reviewing certification of shrimp farming systems.

11. The Sub-Committee on Trade held in Spain 2006 also recommended work to be done related to certification and harmonization. The Sub-Committee on Trade supported future work by the FAO to widen and expand the implementation of the Hazard Analysis Critical Control Point (HACCP)-

[4] ABCC. 2004. "Código de conduta para desenvolvimento sustentável e responsável da carcinicultura brasileira". ABCC - Association of shrimp growers of Brazil.

[5] The state of world aquaculture 2006. FAO Fisheries Technical Paper. No. 500. Rome, FAO. 2006. 134p

[6] FAO: TCP/CHI/3002 Certification of the compliance of the environmental regulations by the aquaculture industry in Chile.

based safety and quality systems and use of risk assessment as the basis for the development of fish standards; to promote equivalence and harmonization; to monitor the border sanitary and quality controls used to regulate, restrict or prohibit trade including their economic consequences. FAO was also requested to broaden the perspective and discussion on the topic to include (i) how developed countries could support the integration of small-scale fisheries into international trade through, for example, standards setting; (ii) intermediation including financing issues; (iii) potential loss of bargaining power of small-scale fishers in getting fair prices for their products; (iv) traceability and eco-labelling; and (iv) value chain analysis.

**OBJECTIVES AND OUTPUTS**

12. The purpose of the Bangkok Expert Workshop was to bring stakeholders together to initiate a process for development of guidelines for aquaculture certification as requested by the COFI/SCA. It was intended that the workshop would assist in scoping the content of the certification guidelines and laying the groundwork for the programme of work on aquaculture certification. In addition, the workshop considered certification issues specific to the Asian region. This Expert Workshop complements the regional analysis for Latin America which is also planned to be undertaken during the planned workshop in Brazil in July 2007.

13. The expected outputs from the workshop, driven by the discussions and perspectives of the participants, are as follows:

- Stakeholders brought together to initiate a process for developing guidelines for aquaculture certification as requested by the COFI/SCA
- Key aquaculture certification issues examined
- Consensus built and scoping of the contents of the certification guidelines
- Groundwork laid for a programme of work on developing aquaculture certification guidelines, and
- Roadmap agreed for developing the guidelines

14. The Agenda for the Expert workshop is provided in Annex 1.

15. A series of orientation presentations was prepared for the workshop, outlining the general issues facing the development of aquaculture certification guidelines and some guidance on the global state of aquaculture certification and relevant agreements and standards. There were 13 presentations made by participants at the workshop covering their national or institutional experiences with different forms of certification schemes.

**PARTICIPATION**

16. The Expert workshop was attended by 72 participants from 20 countries, including several major aquaculture producing and consuming nations. The participants included experts from government agencies, private business, experts involved in certification schemes and food safety, and non-government organizations. The list of participants is provided in Annex 2.

**OPENING CEREMONY**

17. The opening ceremony included welcome addresses by representative of FAO (Dr Rohana P. Subasinghe), NACA (Director General Professor Sena De Silva) and Department of Fisheries Thailand (Deputy Director-General Dr. Somying Piumsomboon).

18. The opening address by Dr. Somying Piumsomboon, opened the workshop and welcomed the experts present at the workshop on guidelines for aquaculture certification. She thanked the FAO and NACA for supporting the request made be several countries at the recent COFI Sub-Committee on Aquaculture to convene an expert workshop to discuss the mechanisms for developing guidelines for aquaculture certification. Dr. Somying noted the broad participation in the meeting comprising private sector, government, NGO's and other interested stakeholders. Dr. Somying noted the rapid growth of aquaculture sector, particularly in the Asian region. She also noted that in Asia, the majority of producers were from small-scale operations. Emerging demands for improved food safety and the need to address environmental concerning has given rise to a number of initiatives aimed at improving the quality of products and methods of production. Dr. Somying drew attention to the development of international principles for shrimp aquaculture and well as Thailand's own domestic certification programme for shrimp aquaculture. This programme covers a large number of Thai farmers (22 000 farms covered by the national GAP & COC schemes) and Thailand is now working closely with ASEAN member countries to transfer this experience to other

countries in the region. In concluding, Dr. Piumsomboon noted that this expert workshop was an important step in the process of bringing global aquaculture production closer together in a common approach to the process of aquaculture certification through the development to aquaculture guidelines. The opening remarks closed with thanking the FAO and NACA for convening this workshop and wished the participants success in their deliberations over the following four days of the workshop.

19. In the opening address Dr. Rohana Subasinghe, thanked the hosting government, Thailand, NACA and all participants for joining to work on Guidelines for Aquaculture Certification. The Sub-Committee on Aquaculture held in India, September 2007 during its third session recognized the increasing requirements for producing aquatic products that are produced according to economically viable and environmentally sustainable practices and that take into account social considerations. The issues to be discussed during the Expert Workshop on Guidelines for aquaculture certification are considered highly relevant by FAO member countries and FAO have been requested to work on this. Dr. Subasinghe stated that he and FAO was looking forward to be working with old and new friends during this workshop.

20. The Director General of NACA, Prof. Sena De Silva, welcomed participants to the workshop. He emphasized that aquaculture in Asia is based on small-scale farmers as well as all the other food producing sectors in the region, and that it was important to safeguard small-scale fish farmers - the great bulk of farmers - that produce and contribute to around 45% of all the seafood we consume. He noted that certification, traceability, and ecolabelling were important in consumer safety and the Asian region, which produces 80% of aquatic foods, must and should be capable to meeting the global standards and put in place the needs to practice these. The regional governments, spear-headed by the Royal Governments of Thailand and ASEAN in general, have endeavored over the last few years various important measures to ensure safety and quality of seafood products. He noted the importance of dialogue and bringing stakeholders together to develop certification procedures and standards and requested the deliberations at the meeting revolve around bringing about an acceptable stance that carefully considers small-scale farmers, and is not detrimental to the small-scale Asian farmers.

**PLENARY SESSION I: INTRODUCTION**

21. The proceedings of the workshop followed with a short self-introduction of all of the participants.

22. Following these welcome and opening addresses, Dr Subasinghe introduced the purpose, scope and organization of the Expert Workshop. The presentation reviewed the general status and trends in global aquaculture. Aquaculture is currently producing ~45 percent of the global fish supply for consumption and this is achieved from a high diversity in production systems. Future projects for fish demand indicate that there is a significant challenge to aquaculture to meet this challenge with safe, quality products. Major issues and challenges noted focused on the sustainability of the aquaculture sector. He noted that aquaculture has created some problems as a result of poor management and development and that this has led to a general call for aquaculture sector to improve its practices and specific demands placed on certain systems. The presentation drew attention to the background of the workshop and the emerging demands for aquaculture certification. The process is to build consensus and build a platform for work in partnership with all the stakeholders present and otherwise. In response to the request for FAO member countries for FAO to work towards greater global harmonization of the process of aquaculture certification.

23. Dr. Subasinghe concluded with noting that the participants were invited to the meeting in their capacity as experts from wide range of disciplines and institutional backgrounds. The purpose was for the contribution of knowledge and experience in order to reach greater consensus on what is needed to develop global guidelines for aquaculture certification.

24. The subsequent discussions raised the following points:

- Sustainability should consider profitability – aquaculture has to be a profitable business to be sustainable.

- Food safety and social responsibility should be included in certification schemes.

- The urgent need to develop guidelines for aquaculture certification guidelines. There are many emerging certification initiatives and without urgent international guidelines it will become increasingly difficult to change existing schemes.

- The guidelines should consider some existing international codes of practice such as those prepared by the ISEAL alliance that are now recognized by WTO.

- The need to consider consumers and markets in the development of the guidelines.

- The costs and benefits of certification should be carefully considered. Participants from Indonesia noted that that aquaculture certification had added cost, but had not produced financial benefits to farmers. This was a disincentive to adopt certification.

- The importance of involving processors in the discussion on aquaculture certification.

- The need for certification to support small-scale farmers and not become a further barrier to trade and market access for the small -scale farming community.

**PLENARY SESSION II: AQUACULTURE AND FISHERY CERTIFICATION**

**Chair:** Prof. Sena De Silva
**Rapporteurs:** Simon Funge-Smith, Michael Phillips, Rohana Subasinghe

25. ***Aquaculture certification: an account of current status and trends –*** *Simon Funge-Smith, Flavio Corsin & Jesper Clausen*: The presentation covered the general coverage of aquaculture certification schemes and associated schemes which may have relevance to aquaculture certification. There seems to be an increasing demand (and willingness to pay) for sustainable aquaculture products. The main areas currently covered by certification schemes are environmental and social sustainable aquaculture development and food safety. The main trends in aquaculture certification are that there are an increasing number of schemes, an increasing number of commodities covered by schemes, increasing scope of standards (social, environment; food safety; trade) and they are all driven by an increasing demand for certified products.

26. ***Experiences from the preparation of guidelines for eco-labelling of fish and fishery products from marine capture fisheries*** – *Rohana Subasinghe*: The presentation provided the background to developing the guidelines and elaborated on the contents of the guidelines. The contents include Scope, Principles, General considerations, Terms and definitions, Minimum substantive requirements and criteria, Procedural and institutional aspects, Setting of standards, Accreditation, and Certification. The presentation also discussed the sections of the guidelines which are relevant to aquaculture certification. The presentation provided

27. ***International Food Safety and quality requirements: application to fisheries and aquaculture*** – *Lahsen Ababouch*: Food safety and quality are very important when dealing with seafood products both from fisheries and from aquaculture. The principles of achieving harmonization of standards and equivalency in food control systems and the use of scientifically-based standards are embodied in two binding agreements of the World Trade Organization (WTO): the Agreement on the application of sanitary and phytosanitary (SPS) measures and the Agreement on technical barriers to trade (TBT). The SPS agreement confirms the right of WTO member countries to apply measures necessary to protect human, animal and plant life and health. The objective of the TBT Agreement is to prevent the use of national or regional technical requirements, or standards in general, as unjustified technical barriers to trade. The agreement covers standards relating to all types of products including industrial products and quality requirements for foods (except requirements related to SPS measures).

28. FAO's normative work in food safety and quality is focused on food standards linked to the *Codex Alimentarius* and developed in close collaboration with the World Health Organization (WHO), and related capacity-building. *Codex Alimentarius* includes standards for all principal foods (whether processed, semi-processed or raw) for distribution to the consumer, with provisions related to food hygiene, food additives, pesticide residues, contaminants, labelling, presentation, methods of analysis and sampling. The Codex Secretariat, housed in the FAO Food and Nutrition Division (ESN), has primary responsibility for normative work on food safety. When dealing with certification it is important to focus on things not already covered by existing legislation.

**Discussion points**

29. The discussions following the presentations raised the following points:

- That food safety should be a core consideration in certification.
- The possibility of different certification standards being adopted for different aquaculture systems, such as integrated farming.
- The extent of any benchmarking of current fisheries ecolabelling schemes against the FAO fisheries ecolabelling guidelines. The experiences and outcomes from the development the FAO fisheries ecolabelling guidelines should be considered in the aquaculture certification guidelines.
- The guidelines should include criteria for stakeholder involvement in the development and implementation of certification schemes. The ISEAL code of conduct on transparency might be considered as well as any other relevant codes and norms for standard setting.
- The role of conformity assessment in international trade.

**PLENARY SESSION III: PERSPECTIVES AND EXPERIENCES IN AQUACULTURE CERTIFICATION**

**Chair:** Dr. Lahsen Ababousch
**Rapporteurs:** Simon Funge-Smith, Jesper Clausen

30. ***Peoples Republic of China: Experience in aquaculture certification*** – *Liu Xiande*: Chinese aquaculture production continues to be the largest in the world (70% of global production by volume). There are also increasing exports from 6.1 to 10% of global volume. China is developing its regulatory framework for aquaculture quality and safety. This covers environmental and food safety aspects, including product labelling and raw material monitoring. Increasingly, traceability and recording of production is being undertaken. China has a Certification and Accreditation department. The certification systems for agri-food covers GAP, HACCP, food safety, organic and green food amongst others. The presentation identified some key agri-food certification systems on food safety, green food and ChinaGAP.

31. ***Thailand experiences in aquaculture certification*** - *Putth Songsangjinda*: In the past two decades, shrimp aquaculture in Thailand has showed a significant role as a source of seafood for domestic consumption and international trade. In 1998, all stakeholders in shrimp industry of Thailand participated in a workshop supported by the World Bank and concluded a concept of sustainable shrimp aquaculture which includes 3 principles; food safety, social responsibility and environmental friendly and the results led to an announcement of policy statement and initiation of shrimp farm certification system. The Good Aquaculture Practice (GAP) is a general scheme of farm standard which meet to the minimum requirements of sustainable shrimp culture, while a code of conduct for responsible shrimp aquaculture (CoC) is a premium scheme to meet full requirements for all producers of the shrimp production chain. The certification system including a traceability system had been established under Thai-French cooperation during 2002-2004. Until 2006, Thailand certified about 23 045 farms of marine shrimp and freshwater prawn under GAP and CoC schemes and about 544 farms of other aquatic species under GAP scheme.

32. ***Challenges and constraints in adopting certification: Thai producers point of view*** – *Tirawat Leepaisomboon*: Alignment of the balancing of the challenges and the constraints to the neutral status need a lot for efforts. The department of fishery, Thailand, has a long history of developing national aquaculture certification. For farmers, certification means extra work or changing their norm of producing. The shrimp farms in Thailand are distributed at 15:25:60 ratio in large: medium: small farms. The tools to implement certification are national registration of all stakeholders, the traceability system, and the laboratory. Until now GAP/COC are beneficial to the Thai shrimp industry overall including the producers. The Thai Aquaculture Certification is the results from farmer participation, knowledge, experiences, and spirit. It is an answer to the consumer demand and the farmer/organization, the government control by utilizing traceability, laboratory units and governing unit (Law and regulations). The system stays close to the farmers with the purpose of producing shrimp for the world consumer. The expectation of the Thai farmers on the certification system are: i) Only one basic standard for farm certification. ii) The standard

should be practical, economical, and lead to sustainability of small-scale shrimp farmers. iii) The additional certification should come for a premium grade standard.

33. ***Certification of farmed fish –*** *Chow Wing-Kuen*: The Agriculture, Fisheries and Conservation Department (AFCD) has launched a voluntary "Accredited Fish Farm Scheme" in Hong Kong in June 2005 with a view to increasing competitiveness of locally cultured fish products and providing customers with quality and safe fish products. Under the scheme, the participating farms needs to meet a set of hygiene standards and to follow a predefined management regime. Practically, the scheme can be divided into three main components, namely i) a farm register system to ensure that farm hygiene and management practices are up to standards; ii) a stock register and quality assurance system to ensure the safety standards of products from registered farms and to provide traceability of products and iii) a new brand name for the quality assured products from registered farms. AFCD in conjunction with Fish Marketing Organization (FMO) established a brand name of "Accredited Fish Farm" for the quality assured fish products from the registered farms and specially designed fish tags for these accredited fish products for easy recognition by the customers. The first batch of accredited fish products were marketed in December 2005 and are generally well-received by the public in Hong Kong. As at March 2007, a total of 65 fish farms, 47 for marine fish and 18 for pond fish culture, have been registered under the scheme and over 50 tonnes of accredited fish products were marketed in Hong Kong. The most popular accredited fish include pompanos, green groupers and grey mullet. AFCD will work together with the local aquaculture industry to encourage more local farms to join the scheme and to further improve the quality of the accredited fish. AFCD in conjunction with FMO will also continue to help local fish farmers identify buyers and to promote the marketing of accredited fish products.

34. ***Experiences of the Global Aquaculture Alliance and the Aquaculture Certification Council (GAA/ACC)*** - *George Chamberlain*: The Global Aquaculture Alliance is a non-profit trade association dedicated to responsible aquaculture. Its programs include communications through its magazine, website, and electronic newsletter; networking via strategic industry unity programs; data collection and projections by regional experts; Outlook meetings that supply data and build consensus on strategic issues; and voluntary certification standards for the aquaculture supply chain. Best Aquaculture Practices (BAP) standards have been developed over an 8-year period through a processing involving broad stakeholder participation, technical committees, and public comment. All are transparent and can be downloaded from the following website: www.aquaculturecertification.org. Current standards deal with shrimp farms, hatcheries, and processing plants. Pending standards include feed manufacturing, channel catfish, tilapia, Pangasius, and salmon. Other standards are under consideration. Once standards are developed, GAA licenses them to the Aquaculture Certification Council, a non profit association, which in turn trains and accredits independent certifiers. Over 100 certifiers are available in 30 countries. The BAP program has been endorsed by several large buyers including Wal-Mart, Darden Restaurants, and Lyons Seafood. One of the greatest challenges facing aquaculture certification programs is to develop systems for certification of small holder farms that dominate production throughout Asia.

35. ***Aquaculture certification perspectives from Chile –*** *Alex Brown*: Chile is one of the major producers of farmed seafood and aquaculture feed globally. There are about 3000 aquaculture permits. Farmers are required to undertake an environmental impact assessment and send yearly environmental reports according to the Environmental Regulation for Aquaculture (RAMA). Its principal Environmental Quality Objective is the maintenance of aerobic conditions in the sedimentation area below farming structures. The RAMA also considers 'General Dispositions' which relate to solid waste discharge, escapement prevention and mitigation measures, minimal distances among farms, contingency plans, etc. The direct assessment is done by the farmers and this approach may raise reasonable doubts about the quality of data produced. To prevent such problems occurring, the Government requested FAO Technical Assistance to strengthen the compliance of the RAMA, through development of a Compliance Evaluation and Certification System. The proposed certification scheme suggested the involvement of the International Standardization Organization (ISO). Thus, the environmental inspections could only be undertaken by Certification Bodies (CB) and Essay Laboratories (LE) accredited by ISO 65 and ISO 17025 respectively. Since resulting environmental conditions are highly dependent on the farming production system and site location, it is suggested that the inspection effort should be directly related to the probability of detecting non-compliance and consider area based certification for small-scale farmers.

36. ***Aquaculture certification perspectives from Brazil –*** *Felipe Suplicy*: Brazil aquaculture production reached 260 000 tonnes in 2005. The main product of Brazilian aquaculture is freshwater finfish (70.4%), followed by shrimp (23.5%) and mollusk farming (5.9%). Aquaculture is present in all federation states and it contributes significantly to poverty alleviation, in particular in

coastal traditional communities and in freshwater reservoirs. Experience in aquaculture certification started with the Brazilian Shrimp Farmers Association (ABCC) through initial discussions with the Aquaculture Certification Council (ACC). The ABCC subsequently decided to develop its own Quality Management Program (QMP), with support from the Federal Government and having as certifiers SGS and DQS. Codes of Conduct were elaborated for shrimp hatcheries, farms, feed mills and processing plants. Discussions were also initiated with EurepGap, but these discussions did not develop into any certification from this body. Due to the reduction in production volumes in the last three years, caused by a number of factors, such as the US antidumping action, occurrence of shrimp diseases, and low exchange rate of the national currency, ABCC found itself with financial limitations to continue its QMP initiative. At this moment, the Federal Government and ABCC are elaborating a government certification scheme of Integrated Shrimp Farming. The International Principles for Responsible Shrimp Farming are being considered as an important input for this new certification scheme. In 2006, there were only seven aquaculture establishments certified in the country, with three organic certifications. The Federal Government is currently working on zoning of coastal areas for bivalve and seaweed production as well as in the establishment of a National Shellfish Sanitation Program (NSSP) with traceability of mollusk batches. In spite of the significant freshwater finfish production, and its contribution to the total volume of national aquaculture production, there is no certification scheme for this sector to date and this is a priority subject to be addressed in the years to come.

37. ***Aquaculture certification perspectives from FEAP –*** *Javier Ojeda*: Industrial and forestry sectors in the European Union possess a variety of certification and eco-labelling schemes; however, they do not apply to food products and medicines. In recent years a debate is taking place in Europe about the use of eco-labelling and labels for responsible fisheries in order to integrate environmental concerns into the fisheries sector (capture and aquaculture). The European Commission has proposed that an eco-labelling policy could stimulate consumer awareness in view of the environmental dimension of fishing and thereby encourage environmental responsibility of both managers and fishermen. However there are basic operational differences that render aquaculture different from wild fisheries and thus to the core concept of needing, developing or applying eco-labels. The FEAP has recommended that any EU-supported measure must apply common rules and certification standards throughout the European Union, and has noted that there is a danger that consumers, legislators and producers will, referring to aquaculture, confuse the purpose of Eco-labelling, Organic aquaculture, Quality schemes and Sustainable aquaculture. Certification requirements must be more stringent than legal obligations. EU consumers will not understand a certification scheme that delivers less than the established legal obligations, mainly on food safety. At the same time, the definition of any label must be the subject of display and clear communication about what it means exactly. FEAP is involved in several projects about aquaculture sustainability ('Consensus' and 'IUCN-FEAP') that could provide valuable indicators for application within sustainable certification schemes.

38. ***Aquaculture certification experiences of WWF –*** *Jason Clay**:*** WWF's interest in aquaculture began in 1994 with a study comparing the impacts of shrimp aquaculture and shrimp trawling. From 1999-02, WWF, NACA, the World Bank and FAO created the Shrimp Aquaculture and the Environment consortium to support research on local to global impacts of the industry; identify areas of disagreement or where there was little data; document better management practices (BMPs) that reduced shrimp aquaculture's impacts either at the pond and practice level, or at the farm, watershed, national or global level; and build consensus around the key impacts as well as ways to reduce them. In 2003, the consortium drafted principles, criteria, indicators and ranges of performance levels for better shrimp aquaculture which were vetted by numerous and varied stakeholders from around the goal. These were subsequently adapted and published by NACA and the UN FAO in 2006 in a document aimed at governments. Based on the experiences with shrimp aquaculture, WWF has extended its approach to standards development for several other species. In 2004, they began working with salmon and molluscs (clams, mussels, oysters, scallops, and including abalone). In 2005 work was initiated on catfish and tilapia and in 2006 discussions began with different stakeholders regarding standards for basa and trout. WWF has undertaken side-by-side comparisons of certification programs for the same products. These comparisons have included programs for agriculture (cocoa, palm oil, cotton, soy) as well as aquaculture (shrimp, salmon, tilapia). Through these analyses, WWF have identified some consistent shortcomings with many existing certification programs that have affected the way we approach our own certification work.

39. ***An introduction to EurepGAP: Facilitating trade through safe and sustainable agriculture*** - *Nigel Garbutt:* EurepGAP started as an initiative of retailers in 1996, with the aim to agree on the development of harmonized Good Agricultural Practices and their verification for all sources of supply. EurepGAP have expanded and today there is also a KenyaGAP, MexicoGAP and

a ChinaGAP. EurepGAP is doing benchmarking of other standards and believe that this is curcial for local adoption and participation. EurepGAP have considerable experience with small-scale farmers in the agriculture sector and is aware of the cost issues for small-scale farmers but also that embracement of small-scale farmers will give them market access. EurepGAP have group certification as an option for small-sclae farmers. Work have just been started to work on certification of farmed shrimp and EurepGAP will launch a scheme likely in the end of 2007. As part of this process there will be a stakeholder workshop held in Bangkok, Thailand in September 2007 and all stakeholders are welcome.

40. **Aquaculture certification and small-scale farmer issues and concerns** – *Michael Phillips, Simon Funge-Smith & N. R. Umesh*: The presentation focussed on small-scale farmers. The bulk of aquaculture production in many countries in Asia is from small-scale, family scale farming operations. The small-scale sector is important for rural development, employment and poverty reduction and there will be significant social and economic benefits if the sector can be effectively serviced to participate in modern market chains. Data on the small-scale sector is surprisingly lacking. The small-scale sector, whilst innovative and a highly important part of the regions aquaculture production, faces increasing constraints, particularly for export crops such as shrimp. These include: aquaculture costs and business structures, access to modern market chains, risks, market standards, food safety standards; limited access to market, technical and business knowledge; and limited/equitable access to financial services. The commercial/government servicing also tends to be less oriented towards the small-scale farmer. With increasing requirements for certification, traceability and quality assurance, it will be important to involve small-scale farmers in certification schemes. No certification scheme as yet targets the small-scale sector. The ways to help small-farmers participate in certification appears to be mainly through organization of farmers into producer groups to allow certification of groups as opposed to individuals. These are rather new approaches for aquaculture, but lessons could be learned from other sectors, including agriculture and the Fair Trade certification scheme. Because of its social and economic importance, the aquaculture certification guidelines should therefore give careful consideration to the small-scale aquaculture sector.

41. ***ASEAN-Europe Meeting (ASEM) - a platform for south-south dialogue in certification*** – *Jean Dhont*: The ASEM Aquaculture Platform is a multi-stakeholder platform for activities related to sustainable aquaculture between ASEM member countries. Through its different stakeholders, the platform aims to reconcile ecological and socio-economic demands and introduce or consolidate concepts of sustainability in aquaculture development in both regions. It wishes to contribute to aquatic food safety by providing sound research results, creating a forum for experts and policy-makers, and by disseminating knowledge up to policy levels as well as down to aquafarmers. The Platform organised expert workshops on six areas that were identified as being instrumental in the further development of sustainable aquaculture: 1) diseases and health management; 2) environment and ecosystem preservation; 3) domestication and breeding; 4) education and training; 5) food safety, trade and regulatory aspects; 6) food security. The objective of the workshops was to formulate recommendations on future directions in research, trade and production and to forge or reinforce alliances. The contribution the ASEM Aquaculture Platform can offer to the aquaculture certification process is to sustain the initiated dialogue between the stakeholders involved by providing a forum for further discussion.

42. ***NGO perspectives on aquaculture certification*** – *Leo Van Mulekom*: The presentation showed, in an example, that poverty is often a 'creeping' and difficult to quantify phenomenon, and also not often easily identified with a single act of an irresponsible actor or entity. NGOs in the south perceive a highly significant external impact of aquaculture that almost unilaterally affects the already poor rural populations. Yet governments and their advisers/consultants are perceived as not being in a secure position to see, validate, and understand the relationship between aquaculture development and external impact issues. This makes NGOs fear incomplete or insufficient mitigation measures by governments, and possible future adverse effects to the poor. The paper identifies so-called 'affected stakeholders' as those suffering from aquaculture externalities yet not being an active part in the enterprise, and claim that it is these 'affected stakeholders' which are not being protected or compensated. Out of concern for these poor, NGOs voice out messages of criticism or messages of rejection against aquaculture.

43. Yet, exactly due to their locally oriented way of working, and despite their criticisms, these NGOs may very well have essential added value to any process that attempts to mitigate or prevent future external costs from arising and/or impacting on the affected stakeholders. Southern NGOs do not place trust in current certification developments as attempts to improve aquaculture (and mitigate its effects). In essence, they seek to have perceived weaknesses addressed before certification is used as communication tool with buyers and consumers of the commodity. To

achieve trust in certification systems, the NGOs seek a competent and participatory basis of regulation performed by governments. This includes regulations on aquaculture development, and implementation by the private sector. It also includes regulating and safeguarding a minimal (high) quality of additional certification schemes. The FAO is well placed to provide international benchmarks for this. Additional regulation by private sector schemes can then be encouraged, provided it is truly inclusive to all stakeholders (including the 'affected'), open, transparent, and publicly verifiable on their reliability.

44. ***The International Federation of Organic Agriculture Movements IFOAM Organic certification process and procedure*** – *Deborah Brister*: The International Federation of Organic Agriculture Movements (IFOAM), Organic Guarantee System assures organic integrity internationally. It enables organic certifiers to become "IFOAM Accredited" and for their certified operators to label products with the IFOAM Seal next to the logo of their IFOAM accredited certifier. This requires compliance with two normative documents, the IFOAM Basic Standards and IFOAM Accreditation Criteria. A certification body's standards are evaluated against the IFOAM Basic Standards and the certifier's performance is evaluated against the IFOAM Accreditation Criteria.

45. The IFOAM Basic Standards (IBS), first published in 1980 and subjected to continuous review, have served as the basis for national, regional, and international organic standards throughout the world. The IBS, considered a standard for standards, are not designed to be used as certification on their own, but instead provide a framework for certification bodies worldwide to develop their own certification standards. IFOAM accreditation guarantees to buyers, government authorities, other control agencies, and the public, that a product has been produced within a system that conforms to accepted international standards for organic production, processing and certification.

**Discussion points**

46. The following summaries the main discussion points arising after the presentations.

- Whether certified products receive any price premium? It was noted in some cases yes, and in others no.

- The role of private or government accreditation agencies.

- The trace-ability systems for small holder shrimp farmers in Thailand, using a movement document that follows product through the market chain.

- The certification of farmed marine fish in Hong Kong focussed mainly on food safety rather than environmental concerns.

- The ACC/GAA certification scheme had been adopted by Wal-Mart, who had presented a 1 December 2007 deadline for farms to be certified to supply shrimp to Wal-Mart.

- The cost of certification under the ACC scheme was explained by the GAA/ACC participant as less than 1 pence/pound, which is less than most certification programs. For farms producing more than 500 tonnes per year, then the costs will be less. It will not work with an individual farm with 1-2 ha, but it will work for a cluster or mid-sized farm.

- The need for a harmonized or equivalency approach whereby national schemes could be recognised. The need for core standards under such a scheme. The Department of Fisheries Thailand in particular was concerned to retain some uniformity at the international level.

- The certification of small holders as a group to reduce the cost. GAA/ACC would be open to exploring the opportunity but consider that the ideal size of a cluster should be one producing 500 tonnes. Individuals within the cluster would share the cost of certification.

- The need for specialist skills among aquaculture certifiers.

- The incorporation of food safety in private certification schemes, when food safety is a concern of governments. It was noted that some buyers do not trust processing plants and want to see validation. However, one should not create new standards, but check compliance against existing standards for food safety standards and processing plants.

- That ecolabels are a promise to consumers that the purchase of certified products will measurably reduce environmental impacts, at least, and probably for social impacts. There is therefore a need for results on the ground that can be demonstrated.

- The need for a results oriented way to BMP implementation that promotes problem solving and improvement among producers. That BMPs should extend in various ways, such as farmer field schools and conscious efforts should be made to develop materials and languages that can convey meaning. Extension methods should be adaptable to local situations. Government extension agents had limitation, and new private sector extension systems should be considered such as systems connected to/funded by processing plants and feed salesmen. The need for economic analysis and preparing a business case for investment in services.

- The risks for sustainability on economic side related to the huge purchasing power of retailers that pressure prices.

- The need for clear definitions[7] in the guidelines.

- The unit of certification should be considered in the guidelines. Discussion considered whether this would be a group of farmers in a particular area, or possibly a group under the umbrella of a processing company. The volumes are needed to make the aggregated group sufficiently large for viability (product volume/value, and costs of certification).

- The need for incentives for small-scale farmers to be certified. Whether there were incentives for certification in local markets?

- Some NGOs will seek a way to be involved in the process of developing certification schemes

- The difference between certification of "product" and "process"? The group considered that checking only end products is not enough – when you are looking at the process you are identifying where the problem is and what to do about it?

- In organic certification systems the feed should come from sustainable sources. There are a number of differences in organic feed standards in different countries, and in some cases will depend on the certification body. IFOAM provides standards for standards.

- IFOAM has general standards for organic aquaculture. Some countries are starting on national standards. EU now anticipating by 2009 there will be organic standards for aquaculture. National organic standards board in US is convening a meeting to consider standards for aquaculture.

**WORKING GROUP SESSION I**

47. Four Working Groups were established. Using as a starting point the presentations and materials available from day 1, and considering the various issues raised in discussion sessions, each working group was expected to discuss "Aquaculture certification status and potential clarified and key issues and constraints identified".

48. This first working session was a "brainstorming" session. No major detailed write up was requested from the groups but they were tasked to attempt to identify the major issues, giving special consideration to:

- Opportunities and needs for certification of aquaculture products
- Constraints in developing certification schemes
- Current and likely implementation constraints
- Issues that should be considered in the aquaculture certification guidelines
- Any special considerations - differences between commodities, farming systems, small-scale farmers, others – to be included in the guidelines
- Approaches to harmonization and equivalence for aquaculture certification

49. Each group was also invited to review, in outline, the key points of the framework for the guidelines for the guidelines on "Ecolabelling of fish and fishery products from marine capture fisheries" and consider their applicability to the aquaculture guidelines. The output of each working group was used in preparing the initial framework for the guidelines, ensuring there is coverage of

[7] Please see Annex 8 for some definitions of importance to the subject of aquaculture certification.

the relevant issues. The outputs from the working groups were presented – in summary "bullet point" format – to the plenary at 1600h on 28th March, for further discussion and consensus building.

***Day 2 - Working Group 1***

**Co-Chairs:** Nigel Garbutt and Tirawat Leepaisomboon
**Rapporteures:** Simon Funge-Smith and Aaron McNevin,

***Day 2 - Working Group 2***

**Co-Chairs:** George Chamberlain and Javier Ojeda
**Rapporteures:** Paul Holthus, Umesh N.R.

***Day 2 - Working Group 3***

**Co-Chairs:** Jason Clay and Felipe Suplicy
**Rapporteurs:** Aldin Hilbrands and Dick Callinan

***Day 2 - Working Group 4***

**Co-Chairs:** Deborah Brister and Supranee Chinabut
**Rapporteurs:** Dominique Gautier and Mohan Chadag

50. Following Working Group Discussions, they presented the outcomes. Their reports are given in Annex 3.

51. **The points raised during plenary discussion are given below:**

**Working Group 1:**

- Prepare a "road map" for the certification guidelines.
- Certification requires record keeping. This may be onerous for small-scale farmers. Capacity building is required.
- Good certification document is a means to an end, not an end to itself. The outcome should be improved performance of the sector.
- Social criteria should include labour rights (ILO criteria), legal access to land (land title), determine farm impact on the surrounding community (as the communities themselves) and an audited process for contract farming.
- Need to define a "cluster" when dealing with small-scale farmers.

**Working Group 2:**

- The need for technical assistance, transfer of technology and know how to assist the small-scale sector implement certification.
- The need to look more into the market demand for certified product. Develop mutual recognition schemes. Incentives will determine which standards are adopted.

**Working Group 3:**

- Goal of implementing certification guidelines should be sustainable aquaculture.
- Costs of implementation must be considered, as well as having too many standards to comply with.
- Base standards on science. Use a risk based approach for food safety issues.

**Working Group 4:**

- Ensure proper definitions are used and that certification programs are results oriented.

**WORKING GROUP SESSION II**

52. During the working Group Session 2 – Day 3 of the workshop – four working groups were established that considered various certification topics as follows:

***Day 3 – Working Group 1: Harmonization and Equivalence***

**Chair:** Tirawat Leepaisomboon
**Co-Chair:** Nigel Garbut
**Rapporteurs:** Simon Funge-Smith, Dominique Gautier

The group discussed how equivalence and harmonization in "certification" could be achieved and what aspects and provisions should included in the "Guidelines".

***Day 3 – Working Group 2: Small-scale farmers, clusters, groups***

**Chair:** Javier Ojeda
**Co-Chair:** George Chamberlain
**Rapporteurs:** Umesh and Dick Callinan

The group discussed what aspects should be included in the "Guidelines" addressing the issue of "small farmers"

***Day 3 – Working Group 3: Structure***

**Chair:** Felipe Suplicy
**Co-Chair:** Jason Clay
**Rapporteurs:** Paul Holthus and Mohan Chadag

Drawing from the outputs/issues of the four group reports, the group developed a structure/format for guidelines, which incorporates these considerations. Bear in mind that agreeing on the contents of "Guidelines" is an ultimate goal of the workshop.

***Day 3 – Working Group 4: Procedures for standards***

**Chair:** Supranee Chinabut
**Co-Chair:** Debora Brister
**Rapporteurs:** Aldin Hilbrands and Aaron McNevin

The group discussed how "Procedures for standard setting" should be addressed to improve the scientific quality, applicability, acceptability, and transparency of the standards and the standard setting process. Following discussions, the working groups presented their results in plenary.

53. **The points raised during plenary discussion are given below:**

**Working Group 1:**

54. The need to take the guidelines into the real world. Develop and publish them. MSC and MAC – took the fisheries ecolabelling guidelines and evaluated their respective systems for compliance. No one is checking at the moment. Certification systems should be in compliance with the minimum guidelines e.g. Accreditation should be separate from standards setting body to ensure compliance with this agreement. There should be "firewalls" between the different components of the certification system.

**Working Group 2:**

55. The need for definitions of small-scale farmers. The fact that as much as 80% of farmers are small-scale, the certification system must radiate from that.

56. Education is a concern for the small-scale sector. Certification requires auditing of documents. Record keeping is important. Vietnam, China, Indonesia and Thailand rated education as important. The need for technical information came across strongly from the group discussions.

57. Standards should be independent on the size of the company.

58. Small-scale farmers have to play a key role in the setting of standards Getting producers involved in the standard setting is important. Based on the experiences of MACA, peer pressure is important within the group involved with group certification schemes. The need to have someone who is apart from the production group as a coordinator.

59. How can we assist small farmers in bringing them into this process? GTZ has just released a book on small holder certification that maybe useful.

**Working Group 3:**

60. The need to make clear the difference between legal requirements and voluntary approach to certification. The point that certification should be based on legal requirements, but may also add further points of concern to international markets/buyers. The ensuing discussion noted that there are only two relevant international agreements – TBT and Codex. These are the minimum criteria or requirements. Countries and organization are free to add as long as it fits a specific purpose. Demonstrated scientifically that something more is needed. All FAO guidelines are voluntary.

61. The importance of guidelines being practical and based on some priority.

**Working Group 4:**

62. No further comments or discussions

**WORKING GROUP SESSION III**

63. This session opened with a plenary presentation on the Codex Code of Practice for Fish and Fishery Products – Aquaculture, by Lahsen Ababouch.

64. The plenary discussions following the presentation highlighted the importance of use of risk analysis in defining food safety risks, and relations between FAO and ISO. It was noted that ISO had shown an interest in development of aquaculture standards. FAO was in consultation with ISO to ensure complementarity's in ongoing/planned work.

65. Following the presentation, two working groups were established for the session as follows.

***Day 4 - Working Group 1 – Social responsibility***

**Chair:** Leo Van Mulekom
**Co-Chair:** Sudarsana Swami
**Rapporteurs:** Mohan Chadag and Pedro Bueno

66. The Working Group 1 discussed the requirements and needs for effectively addressing social issues in aquaculture certification. The report is available in Annex 4

***Day 4 - Working Group 2 – Minimum requirements and/or criteria (core-standards?) which should be included/addressed in the Guidelines***

**Chair:** Alex Brown
**Co-Chair:** Siri Ekmaharj
**Rapporteurs:** Stuart Lindel and Matthew Parr

67. The Working Group 2 discussed the minimum requirements or criteria to be included in aquaculture certification. The report is available in Annex 5.

68. Following discussions, the working groups presented their results in plenary. The points raised during plenary discussion are given below:

**Working Group I – Social responsibility**

- Need for continued discussion to arrive at consensus on core standards for social responsibility. Suggestion for an additional working group to address social issues and continue working after the workshop.

- Difference between living wage and minimum wage. Child labour could be considered within the context of existing ILO conventions/standards.

- The role of government and private business in supporting social responsibility. Government is responsible for the regulatory system.

- Social responsibility should include education.

- Social annex of the EurepGAP example deserved to be looked at and taken note of.

- Social responsibility within the context of contract farming should be considered

- Land tenure and resource rights should be considered. EuropGap standards criteria do not only require compliance with land tenure, but additional consider consultation with community and any prior or traditional rights. If problems emerge, the company being certified should show evidence of resolution of conflicts.

- Responsibility of the operator and owner, who in many instances were different.

- Farm production side should also provide information to the consumer.

- Social issues in processing plants. Many people are employed in this side of the industry. Should these be considered?

- Credible certification systems will need to provide verification that farms follow national laws.

- The need to prioritise social issues. The possibility of a graduated approach, addressing key issues first, and showing progress in social responsibility, should be explored.

**Working Group II – Core standards**

- Prioritise the criteria to be included in the "core standards" recommended in the guidelines. Focussing on the most important will also help reduce implementation costs and will be more practical.

- The need for training in support of implementation.

- The core standards should apply broadly across commodities, although there would be differences in relation to individual commodities. The need to identify address 6-10 key impacts.

- How to consider the cumulative effects in certification? How can ecosystem considerations be included, for example, with large concentrations of small-scale farms?

- A perfect set of standards is not needed, but there should be flexibility to add or modify as needed.

- The importance of learning from other experiences, such as ACC/GAA.

- The need to ensure harmonisation between legislation programs and certification schemes

69. In summarising the various important points raised during this session, the Chairman made the following observations:

- The importance of stakeholder input during the development of the aquaculture certification guidelines. In particular, participants were invited to consider the opportunities, through their contacts and networks, to establish dialogue on the guidelines through meetings, small-scale

farmer consultations, workshops and other opportunities for sharing of experiences and building consensus on the guideline content and process.

- The importance of further study on key aspects, for example in developing a model for small-scale farmer certification. Other areas of uncertainties might also require further detailed analysis before a consensus could be reached for the guideline.

- The importance of transparency during the preparation of the guidelines.

- The working group presentations and plenary discussions had been useful and lively. There is a need to keep the group working together during the workshop follow up.

**RECOMMENDATIONS OF THE EXPERT WORKSHOP AND THE AGREED FOLLOW-UP ACTIONS**

70. During this final plenary discussion session, the Expert Workshop agreed on the following points:

- The group should continue to work on development of the aquaculture certification guidelines using the guidelines framework and working group materials from the expert workshop. Work should be conducted via electronic media, including email and the web site. The group further suggested mirroring the existing FAO/NACA web site on other relevant web sites to ensure wider input and dialogue on the guidelines.

- The Advisory Group would play an important role in development of the guidelines.

- The Brazilian government had showed interest to host a second workshop in Brazil in late July/early August 2007 to gather input and experiences from the American region for development of the guidelines for aquaculture certification.

- Harmonisation and equivalence should be discussed through electronic working groups using the material developed during this workshop. The need for a physical working group was recognised, and if needed the working group would meet for one or two days before the Brazil meeting.

- Broad stakeholder input to the development of the aquaculture certification guidelines is important and welcome. Participants were encouraged to share the workshop report and draft guidelines with their contacts and networks and invited to share information and feedback with the Secretariat in the development of the guidelines.

- There is a need to create further dialogue between Asia and Europe on certification of aquaculture products, using the ASEM aquaculture platform.

**CLOSING CEREMONY**

71. The Expert workshop was closed with remarks from FAO and the Government of Thailand. The speakers thanked the participants for their active and fruitful involvement in the meeting, and looked forward to further co-operation in the development of the aquaculture guidelines and implementation of the recommendations.

**ANNEX 1: AGENDA OF THE EXPERT WORKSHOP**

| DATE/TIME | ACTIVITY |
|---|---|
| **27 March 2007** | |
| 08.00 – 09.00 | Registration |
| **Opening Ceremony** | |
| 09.00 – 09.30 | Opening ceremony<br>Address by FAO – Rohana Subasinghe<br>Address by NACA – Sena De Silva<br>Address by DOF/Thailand – Somying Piumsombun |
| **Plenary Session I: Introduction** | |
| 09.30 – 09.50 | Introduction and objectives – Rohana Subasinghe and Michael Phillips |
| 09.50 – 10.10 | General discussion |
| 10.10 – 10.30 | Group Photo and Coffee/Tea |
| **Plenary Session II: Aquaculture and fishery certification** | |
| 10.30 – 11:00 | Aquaculture certification: an account of current status and trends – Simon Funge-Smith, Flavio Corsin and Jesper Clausen |
| 11.00 – 11.30 | Experiences from the preparation of guidelines for ecolabelling of fish and fishery products from marine capture fisheries – Rohana Subasinghe |
| 11.30 – 12.00 | International food safety and quality requirements: application to fisheries and aquaculture – Lahsen Ababouch |
| 12.00 – 12.15 | Discussion |
| 12.15 – 13.30 | Lunch |
| **Plenary Session III: Perspectives and experiences in aquaculture certification** | |
| 13.30 – 13.50 | Chinese experience in aquaculture certification – Liu Xiande |
| 13.50 – 14.10 | Thailand experiences in aquaculture certification – Putth Songsangjinda |
| 14.10 – 14.30 | Challenges and constraints in adopting certification: Thai producers point of view – Tirawat Leepaisomboon |
| 14.30 – 14.50 | Certification of farmed marine fish in Hong Kong – Chow Wing-kuen |
| 14.50 – 15.10 | Experiences of the Global Aquaculture Alliance and Aquaculture Certification Council (GAA/ACC) – George Chamberlain |
| 15.10 – 15.30 | Aquaculture certification perspectives from Chile – Alex Brown |
| 15.30 – 15.50 | Aquaculture certification perspectives from Brazil – Felipe Suplicy |
| 15.50 – 16.10 | Discussion |
| 16.10 – 16.30 | Aquaculture certification perspectives from FEAP – Javier Ojeda |
| 16.30 – 16.50 | Aquaculture certification experiences of WWF – Jason Clay |
| 16.50 – 17.10 | An Introduction to EurepGAP: Facilitating Trade through Safe and Sustainable Agriculture – Nigel Garbutt |
| 17.10 – 17.30 | Aquaculture certification and small-scale farmer: issues and concerns – Michael Phillips, Simon Funge-Smith and Arun Padiyar |
| 19.00 – | Welcome reception dinner hosted by Department of Fisheries, Thailand |
| **28 March 2007** | |
| 08.30 – 08.40 | ASEAN-Europe Meeting (ASEM) – a platform for north – south dialogue in certification – Jean Dhont |
| 08.40 – 09.00 | NGO perspectives on aquaculture certification – Leo Van Mulekom |
| 09.00 – 09.20 | IFOAM Organic certification process and procedure – Deborah Brister |
| 09.20 – 09.40 | General discussion |
| **Working Groups – Session I** | |
| 09.40 – 10.00 | Guidelines on aquaculture certification: food for thought and introduction to working group discussions – FAO/NACA |
| 10.00 – 12.30 | Working Groups: key issues, opportunities and constrains |
| 12.30 – 14.00 | Lunch |
| 14.00 – 16.00 | Working Groups continue |
| 16:00 – 17:30 | Plenary: Presentations of groups and discussion |

| DATE/TIME | ACTIVITY |
|---|---|
| **29March 2007** | |
| **Working Groups – Session II** | |
| 08.30 – 12.30 | Group Discussion – Four Working Groups<br>Group 1: Harmonization and equivalence<br>Group 2: Small-scale farm and cluster certification<br>Group 3: Structure of Guidelines<br>Group 4: Procedures for Standards |
| 12.30 – 14.00 | Lunch |
| 14.00 – 17.00 | Working Groups continue |
| 16:30 – 18:00 | Plenary: Presentations of groups and discussion |
| **30 March 2007** | |
| **Working Groups – Session III** | |
| 09.00 – 09.20 | CODEX Code of Practice for Fish and Fisheries Products: Aquaculture – Lahsen Ababouch (FAO) |
| 09.20 – 09.30 | Discussion |
| 09.30 – 12.30 | Group Discussion – Two Working Groups<br>Group 1: Social Responsibilities<br>Group 2: Minimum requirements and/or Criteria (core-standards?) which should be included / added in the Guidelines |
| 12.30 – 14.00 | Lunch |
| 14.00 – 15.30 | Plenary: Presentations of groups and discussion |
| 15.30 – 16.00 | Tea/coffee |
| 16.00 – 16.30 | Road map and way forward |
| **Closing ceremony** | |
| 16:30 | Closing ceremony<br>Address by FAO – Lahsen Ababouch and Rohana Subasinghe<br>Address by NACA – Sena De Silva<br>Address by DOF/Thailand – Jaranthada Karnasuta |

**ANNEX 2: LIST OF PARTICIPANTS**


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**ANNEX 3: WORKING GROUP REPORT: SESSION 1 (DAY 2)**

**WORKING GROUP 1**

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**SCOPE**

**What outcome are we trying to achieve through certification?**

- Certificate signifies adoption and implementation of "good" practices, with mechanism for continuous improvement.
- An integration of the environmental, sustainability, social and food safety concerns is required.
- The fundamentals must be in place first (e.g. BMP) and then work on a process of improvement e.g. prevent disease, food safety, reduce environmental pollution, societal needs
- Ensure compliance with importing country legislation
- Certification programs should comply with producing country laws
- The goal of a scheme should be 'Support safe and sustainable aquaculture'; for example - environment and social aspects are incorporated into a concept of sustainability, food safety.
- Purpose is to ensure that all products meet a specific agreed standard
- Certification should not simply replace or duplicate national food safety system but has value/a role in dealing with other issues (e.g. commercial quality aspects, environment/social)
- Government's role is to ensure that a product meets a legal standard.
- FAO to coordinate process to agree on minimal, harmonized standard
- Private sector schemes are intended to meet the requirements of consumers

**RELATING TO STANDARDS**

**Result/output focus should be looking for measurement of 'improvement'**
Certification should be done on an international level - but fitted to national context.

Should we certify practice or process?

- Can verify practices (need to make sure that these practices can be sustained) – but may need indicators.
- The method of achieving a standard it is up to the local context.
- It is a fixed level of achievement – but there needs to be continuous review of the standard and its improvement

Can have an entry level standard to begin the process, and then a higher level (there is a route map to get something better) to be achieved. This allows for differentiation of the product and therefore higher prices.

Need one harmonized best practice level – (core standard level) and this would be the basis of building certification on this. Each country needs to determine the national standard but it must relate to the international standard.

ISO guide 65 covers the way certifying bodies work - But may need strengthening as it may not be specific enough which gives loopholes for interpretation in. Government/private sector should use the ISO guide 65 for the certification and accreditation

**WHAT IS THE ROLE OF GOVERNMENT**
Governments can play a strong role in laying out the basic frameworks at national level

- Sets basic regulatory framework to ensure fundamental issues are covered (hygiene, disease, siting)
- Do not necessarily have to have legislation in place to certify
- It is much easier if there is a regulatory framework – e.g. farm licensing and registration, disease control, quarantine etc.
- Provide the capacity (training/support) to achieve the certification
- Supporting infrastructure such as accredited laboratories
- Government can be involved in the accreditation process
- Could operate the accreditation body

- Actual certification may be done better by private sector certification bodies because they are a service provider
- There may be conflicts of interest.
- If the guidelines are followed, then the certifying body can be either private or government.

**SMALL FARMERS AND CLUSTERING**
Need to reflect on the fact that (small) farmers simply do not have the most basic levels of better practice. Measurable performance standards can be applied to small and large producers?

Better Management Practice promotion could be a basis for organization of farmers improving their basic practices. This could be built on further through the development of certification schemes. Can practices be verified?

Start with a core of certified producers. Identify the better producers, use them to set the level (national level), and encourage more farmers to enter with incentive measures. Is the group recognized/registered with the national authority. Is there a supporting system for this? It is expected that demands for certified products will drive processors to engage more in improving their suppliers (farmers), even to the extent of assisting their certification

**UNIT OF CERTIFICATION**
This will be system or species specific. Most certification coverage relates to on-farm/farm unit type criteria. This means that the external impacts are assumed to be mitigated by good on-farm practice. External effects and impacts must be included into a scheme. The cumulative effects and off site impacts, which would be the basis of inspection under area/cluster approach. Large aggregations of farms will still impact if they exceed local environmental carrying capacity. This underscores the need for some form of regulation of numbers/density. It is clear government need to act at this point if certification is to realistically contribute to the goal of sustainable production. Intensive and extensive aquaculture may need different guidelines – or guidelines need to address both needs of intensive and extensive.

**INVOLVING STAKEHOLDERS**

**Who should be setting standards, what is the process?**
Standard development is done through a multi-stakeholder group. The national guidelines are approved by the global standard body as a national interpretation. National Technical Working Group (Multi-stakeholder groups) should responsible for the local interpretation process. Public and civil stakeholder (esp. directly impacted stakeholders) and others in the market chain should be involved in the consultation (transparency in standard setting).

**Social issues**
They are important in order to understand social effects and 'off-site' impacts. However, they are difficult to audit, subjective and difficult to "measure" and require specific techniques. Having adequate representation, engagement, and consultation of interested groups throughout the process is paramount.

**HARMONIZATION**
Need more mutual recognition between schemes. It is desirable to have a CORE SET OF STANDARDS for which there is global consensus.

There are many schemes present. Aquaculture products are highly differentiated and the lack of harmonization (of the objective of certification) is exactly the reason why we have so many schemes. Benchmarking can and does occur between certification programs to harmonize. Lack of clarity on what programs will and will not attempt to harmonize.

Are independent, third party international organizations the only ones that can be harmonized?

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**GENERAL THEMES**

- Opportunities and needs for certification of aquaculture products
- Consumer: support, confidence (e.g. food safety), requirements
- Small holder issues:
- Harmonized global standard:
- Guidance for certification: e.g. scope, support of regulations
- Assurance: e.g. food safety, environment, quality, social
- Pricing/market access:

**CONSTRAINTS IN DEVELOPING CERTIFICATION SCHEMES**

- Standards costs: consider costs in standards development (e.g. to small producers, cost of improvements to comply)

- Standards situation: lack of international stds, lack of harmonization, too many schemes/standards , too many parameters in schemes, Standards development: coverage of full range of products, coverage of range of social/country conditions; develop meaningful metrics, setting the bar at appropriate level, needs to respond to innovation/changes,
- Standards credibility/acceptance: ensure stakeholder participation
- Consumer/public: confidence, promoting, confusion re too many schemes
- Small scale producers: ensure consideration/participation
- Legal: relationship of standards to regs/legislation, relations to trade and barriers to trade
- Infrastructure/capacity: limits to producer human/financial resources, lack of integration from producers to industry/institutional arrangements: who creates/owns standards, who oversee standard setting, no financial benefit to the organization that sets the standard, standard review process?

**CURRENT AND LIKELY IMPLEMENTATION CONSTRAINTS**

- Economics/cost: show incentives/benefits to small producers, cost too much to participate, cost pushed to producers
- Training/capacity bldg: especially for producers, need for government/NGO involvement, outreach, awareness raising, who pays for/provides training
- Government role: variation in government support/involvement, capacity of government to monitor compliance/equivalency
- Certifiers: Limits in number/availability of certifiers, need for objective/credible certifiers. Stakeholder participation: how to get participation (especially farmers), lack of clusters, need to connect stakeholders
- Lack of harmonized info, lack of access to info

**ISSUES THAT SHOULD BE CONSIDERED IN THE AQUACULTURE CERTIFICATION GUIDELINES**

- i.e. what is the scope of the guidelines
- Social: e.g. worker issues
- Food safety and traceability, e.g. feed/contamination
- Scope: focus on key issues/objectives, exceed legal reqts, begin w min/practical stds, evolve to premium and/or have different levels, applicable internationally, include what is in existing stds, address consumer issues, reference other intl agreements (e.g. Codex, ISO 65)
- Use risk management to establish key issues and address small producer issues
- Environmental/biodiversity: e.g. Waste mgmt, water use, siting, health/disease Cert systems: e.g. admin of certification and accreditation, CB competency, group certification (internal control, criteria, sampling), clear procedures (e.g. cost, auditing, accreditation), transparency

**SPECIAL CONSIDERATIONS**

**There are differences between commodities, farming systems, small-scale farmers, others. Therefore, these should be reflected in the guidelines.**

- Generic standards to cover basic issues, global production aspects
- Define which issues are in guidelines, which are in annexes (or in the standards)
- More specific standards: to cover special concerns/issues (e.g. farming systems, freshwater vs. marine, different intensity levels, each commodity, clusters, small scale producers, social/cultural issues)Define what is aquaculture and scope of guidelines, e.g. re intermediate aquaculture, capture-based aquaculture, stock enhancement
- Risk based approach and focus on critical issues
- Certification approach: e.g. phased
- Buyers: have different standards

**APPROACHES TO HARMONIZATION AND EQUIVALENCE IN AQUACULTURE CERTIFICATION**

- Harmonization possible for standards of similar scope
- Guidelines should set minimum requirements for standards
- Facilitate harmonization by international organizations, e.g. FAO
- Mutual recognition of certain schemes
- Performance based/output standards as basis for equivalence
- Guidelines should provide procedures and criteria for benchmarking, mutual recognition, etc.
- National level input to harmonize global standards for each commodity
- Reference to existing international agreements (e.g. production standards, quality standards and accreditation standards)
- Harmonize national standards and market/buyer standards
- Market will determine which standards are adopted

**WORKING GROUP 3**

**Co-Chairs:** Jason Clay and Felipe Suplicy
**Rapporteurs:** Aldin Hilbrands and Dick Callinan
**Members:** Mali Boonyaratpalin, Philip Borel, Alex Brown, Chavatip Chindavijak, Sena De Silva, Siri Ekmaharaj, Chow Wing Kuen, Mathew Parr, Achmad Poernomo, Tarlochan Singh, Putt Songsangchinda, Iwan Sutanto, Dhirendra P. Thakur, Arief Taslihan, Vu Dzung Tien, Phawana Assawaprapa

**GOAL, SCOPE AND PURPOSE OF CERTIFICATION**

- Goal:
  - Sustainable and responsible aquaculture
- Scope:
  - Food safety and quality
  - Environmental sustainability
  - Social responsibility,
  - Economic viability, and/or
  - Animal welfare
- Purpose
  - Reputation/credibility of producer, company, value chain, country
  - Assurance to consumers
  - Sustainable/responsible seafood production
  - Market access
  - Improve livelihoods
- Other issues
  - Mandatory/voluntary
  - Trade barriers

**STANDARDS FOR STANDARD SETTING – PROCESSES, SCALE, UNIT ETC**

- How standards are developed
  - Multi-stakeholder involvement from beginning (government, NGOs, local communities, producers, value chain enterprises, consumers, accreditation bodies, researchers, etc)
  - Transparency
  - Consensus
  - Stakeholder outreach
  - Identify and review comparable systems
  - Identify research needs and knowledge gaps

- What they do. Standards should:
  - Define acceptable performance to meet objectives
  - Define the unit/s of certification
  - Comply with national law and regulations
  - Comply with international agreements
  - Improve performance of producers
  - Be measurable
  - Apply to all producers (or not exclude classes of producers)
  - Improve producer economic viability
  - Be achievable
  - Be science - based (i.e. evidence/data – based)
  - Be strategic—focus on key issues, however defined
  - Encourage innovation
  - Improve product quality

- How standards are verified or how compliance is monitored
  - Third-party certification (role of government?)
  - Traceability throughout the value chain
  - Transparency
  - Communications

- Other issues
  - Monitoring compliance of individual schemes against these guidelines
  - Firewalls between standard setting, standard holding and verification
  - Costs and who pays
  - Certification for local or international markets

- Product or process

**ROLE OF STAKEHOLDERS**
- Build consensus
- Develop scope and content of standards
- Periodically review standards
- Implement and disseminate standards as appropriate

**HARMONIZATION**
- Complementarity of different certification schemes or standards
- Mutual recognition of equivalency of certification schemes or standards
- Harmonization of common conceptual issues re eco-labeling guidelines for marine capture fisheries, ISEAL, Codex, etc
- Other issues
  - Need for base reference standards

**FOCUS ON PROCESSES VS. FOCUS ON RESULTS**
- Base standards on results rather than practices
- This encourages innovation
- But requires workbooks, guidance documents, extension

**VALUE OF CERTIFICATION PROCESSES (BENEFITS VS. COSTS)**
- Market access
- Consumer safety and confidence
- On-farm efficiency
- Environmental sustainability
- Wider social acceptance
- Product and company image
- Results in net profits
- Reduces risk of consignment rejection

**COST OF CERTIFICATION FOR PRODUCER**
- Accreditation costs
- Certification costs
- Compliance costs
- Production costs
- Lack of harmonization and existence of multiple programs
- Other
  - Lack of local certifiers for some schemes
  - Confusion about certification schemes for farmers and consumers

**OTHER FINANCIAL ISSUES**
- Extension and education
- Certification program development (includes standards development, etc)
- Research and BMP identification
- Business case analysis
- Administrative costs, data bases, websites, etc

**SMALLHOLDER ISSUES**
- How to engage with smallholders
- Viable organizational unit
- Appropriate unit(s) for certification
- Cumulative environmental and social impacts
- Relative costs of certification
- Appropriate BMPs
- Utilize traditional knowledge which contributes to sustainable aquaculture
- Challenges re biosecurity, pests
- Improving smallholder performance

**OTHER SIGNIFICANT RELATED ISSUES**
- Zoning and land use planning
- Co-management
- Infrastructure

- Access to resources
- Conflict resolution system
- Biodiversity and ecosystem services

**WORKING GROUP 4**

**Co-Chairs:** Deborah Brister and Supranee Chinabut
**Rapporteurs:** Dominique Gautier and Mohan Chadag
**Members:** Song Yi, Liu Xiande, Sudarsana Swami, Chaery Novari, Leo Van Mulekom, Magnus Torell, Waraporn Prompoj, Pradit Choncheanchob, Lila Rungapan, Claude Boyd, Philippe Serene, Jesper Clausen, Koji Yamamoto, Pedro Bueno, Chen Encheng, Huang Lei

**AQUACULTURE CERTIFICATION-KEY ISSUES, OPPORTUNITIES AND CONSTRAINTS**

**Key Issues**
There is a need for aquaculture certification. It is needed by various entities for various reasons. It could be one of the means for ensuring the sustainability of aquaculture (e.g. environmental, social, food safety, economical, etc)

**Basic requirement**
Aquaculture Certification should be founded on a regulatory framework of the national government consistent with international standards/agreements. International law should support such national regulatory frameworks. Mandatory requirements (e.g. BMP, GAP) set and promoted by governments. Mandatory requirements could be excluded from certification standards and build in an internal control system. Certification as a tool (Voluntary) could come only later and should be incentive driven (e.g. market, tax exemption). Private driven certification intervention should complement and not compete.

**Who needs it?**
There are different reasons to different people. Governments need it to promote good governance, promote exports, assistance to farmers, social equity, and environmental sustainability. Farmers want it if they can benefit or improve sustainability and community relations. Retailers are seeking future/assumed consumer requirements and companies want to show social and environmental responsibility. Civil society has other concerns (e.g. social concerns, environmental, fair/ethical trade) and consumers demand for ensuring access to higher quality product.

**Where standards are developed and where they are implemented**
Standards are not often developed in producing countries. The top down approach should be reduced.

**Standard development should consider issues of producing countries**
Small scale farmers, cluster approach, stakeholder inclusiveness should be considered and participatory and transparent process should be utilized in certification.

**Any other issues**
The exotic species culture, issue of feed resources (e.g. carnivorous fish culture) and climate change related to carbon/energy budget should also be considered as appropriate.

**SCOPE OF CERTIFICATION GUIDELINES**

- Follow the rule of the country (e.g. National legislation)
- Follow international agreements and measures (e.g. WTO/SPS)
- Should include defined scope, purpose, definitions and ensure sectoral sustainability
- Consider environmental issues (e.g. Deforestation), social issues (e.g. Child labour, ethical), food safety issues, and trade issues (e.g. trade barrier/trade promotion, fair trade)
- The process should be all inclusive (e.g. small farmers) and there should be provision for training and capacity building (continual improvement).
- Progressive possibility for improving performance should be included and regular review of certification systems (e.g. stakeholders can have a continuous input) and involving all stakeholders including neighbouring communities in a transparent manner.

**CONSTRAINTS**

**General**
- Terminologies are very confusing and poorly defined
- Power play involved in certification
- Understand it in the context of WTO
- Some times seen as trade barrier
- Market distortion by power playing

- Multiple schemes create more work for the producers and add to cost
- Buying power dictating what producers need to do
- Lack of assured incentives for certified product
- Difficulties in involving all stakeholders (e.g. national interest, interest of small scale farmers)
- Trust and confidence in the certification process
- Lack of consultation (e.g. public domain)
- Different people trying to control different aspects of certification

**Implementation Constraint**
- Different certification schemes for different purposes
- Producers confused (opportunity to harmonize and equivalence)
- Individual small scale farmer certification is difficult (e.g. Cost is very high)
- Bringing small scale farmers into the mechanism is difficult
- Price of certified product not always an incentive
- Many standards are basically the same. The difference is how they are applied

**OPPORTUNITY**

**Small Scale farmer certification**
- Practical approach is through group/cluster certification
    - Grouping is a difficult task
    - Defining a cluster group (e.g. hydromorphological entity, sharing a common support service-Cooperatives, NGO)
    - Setting criteria for defining group
    - Common responsibility of group members
- Develop guidelines for group certification
    - How groups are managed
    - How do you audit a group
- Technical Assistance for group certification
- Harmonization and equivalence
- Need for benchmarking procedures

**ANNEX 4: WORKING GROUP REPORT: SESSION II (DAY3)**

**WORKING GROUP 1 – Harmonization and Equivalence**

**Chair:** Tirawat Leepaisomboon
**Co-Chair:** Nigel Garbut
**Rapporteurs:** Simon Funge-Smith, Dominique Gautier
**Members:** A Hettiarachchi, Sena de Silva,Ahmad Poernomo,Boedi Sardjana,Li Sedong,Varin Tanasomwang,Pradit Chonchuenshop, Malinee Witchawut, Phawana Assawaprapa, Chen Wen, Philip Borel

The group discussed how equivalence and harmonization in "certification" could be achieved and what aspects and provisions should included in the "Guidelines".

**Why harmonize?**

- Certification, accreditation and standards. These are being developed varyingly around the world.
- There is a need for a 'harmonizing document' to enable countries and schemes to base themselves on a common frame/reference to allow equivalence:
    - Every country is sovereign to develop its own standards and certification schemes
    - These need to be harmonized against a common reference so that these do not constitute a barrier to trade
    - National schemes need to be harmonized against an international standard to promote trade amongst trading partners
- Achieving the standard can be done in different way
- Two different standards are considered equivalent if they achieve the same result (result based approach). This is the SPS/TBT definition.
- Differing customer requirements means that different schemes may focus on different standards – however all schemes should have some common basis

**Constraints to harmonization**

- National requirements are typically lower than the global standard.
- In developing countries there are challenges to following the global standard and this requires time to move towards meeting the global standard.

**What needs to be harmonized?**

- The FAO guidelines will be the basis for harmonization
- The guidelines need to be harmonized with conceptual parameters (i.e. with existing standards/norms, it is recognized that some adaptation will be required).
    - With respect to accreditation and certification procedures follow the same broad framework eco-labeling guidelines for capture fisheries and other relevant/similar guidelines
- Private sector
    - Can also refer to private sector international standards
    - There are a wide range of private schemes which could provide guidance and reference in establishing criteria

**International and Private Sector References**

- Identify the key references with which the minimum set of criteria should be referenced to or drawn from.
- International (non exhaustive)
    - Code of Conduct for Responsible Fisheries, (particularly Article 9, Article 11)
    - Main requirements for accreditation and certification are found in ISO (e.g. certification body comply with ISO 65 Accreditation body should comply with ISO 61)
    - CODEX Guidelines on Harmonization for Food Safety
    - Animal Health (OIE)
    - International principles for responsible shrimp farming
    - Employment – ILO
    - World Trade Organization rules (e.g. SPS, TBT)
    - Social aspects? Any global references
    - Relevant UN Conventions
    - CBD
    - Wetlands - RAMSAR (are there others?)
    - Any others
- Other international recommendations
    - e.g. Bangkok declaration & others

- Private
  - e.g. SA 8000 Social accountability and other similar guidance
  - existing criteria from certification schemes (EUREPGAP, ACC, COC, MAC, IFOAM,and the others)

**Criteria**
- "Minimum substantive criteria" are the minimum set of criteria which are required for a credible certification scheme
- Criteria are what you use to set control points
- Control points are what you use to assess an operation

**Minimum substantive criteria**
- Common set of criteria for certification (food safety, environmental social, welfare)
  - Any organization can develop its own certification schemes, but schemes should follow the criteria laid down contained in the guidelines.
  - In the case that the criteria in the international agreements do not cover all aspects of aquaculture certification – additional criteria would be needed to be developed
  - Consultation on these criteria, once developed, will be required

**How to harmonize?**
- What are the steps in harmonization?
- For international standards, harmonization is meeting those standards
- Committees exist e.g. SPS & TBT committees which have the role to monitor harmonization.
- Harmonize existing schemes with the FAO guidelines for aquaculture certification
- How will this be done?
- Once guidelines have been developed – certification schemes will need to review how they may be abler to use the guidelines.
- We must recognize that it will take time for certification schemes to harmonize with these.
- We should not raise expectations that schemes will comply with the guidelines immediately (or 100%)
- There will need to be adjustment between schemes (for equivalence) and also adjustment to meet the requirements of the FAO guidelines for aquaculture certification.

**A road map to achieving agreement on minimum substantive criteria**
- Develop a common set of agreed (minimum substantive) criteria for certification
  - The current workshop participants could try and provide a list (or recommend) of criteria as an outputs of this workshop
  - Review of existing schemes (criteria)
- Suggest the creation of a (physical or electronic) working party of experts
  - Contains public and private sector, NGO's
  - to develop further/refine the criteria and review the international criteria
  - Output will be a draft of criteria.
- This would be shared broadly (typically e-mail) with existing schemes and other stakeholders.
- The working group could meet physically prior to the next workshop (Brazil)
  - Draft criteria would be further commented and refined at this workshop.
- The outcome of this workshop is circulated to stakeholders and opened for broader consultation (possibly post for a period of time and request feedback).
- List of minimum substantive criteria should be:
  - Commonly agreeable
  - Reasonably achievable
  - Objective
- The feedback is incorporated near-final draft is the result of this process.
- Finalized guidelines are taken to a Technical consultation
- Working group recommends that the workshop establish a timeline for all follow up activities
  - Particularly to facilitate the timely and effective inclusion of stakeholders

**Develop a clearly defined stakeholder list**
- We need to spend time to develop this list so it is clear who we should be communicating with?
- FAO has list of stakeholder organizations/ NGO's etc.
- Ensuring adequate participation or feedback from industry and NGOs will need assistance from partners at this workshop.
- Working group recognizes the difficulties in reaching local communities and small-scale farmers via internet and recommends that:

- NGO's and small-farmer group organizations, government agencies, IGO's (such as NACA,SEAFDEC etc.), as appropriate
- Play a role in ensuring their contributions are effectively communicated in the process.

**Mechanisms to harmonize?**

- FAO to lead this process of developing international guidelines
- These will form the basis for harmonization and equivalence
- Drafting guidelines
- Coordinate the working party for setting the minimum substantive criteria
- In the future:
  - There will be needs to harmonize
  - Needs to establish equivalence
  - Mechanism to resolve disputes
  - Possible establishment of a committee (in FAO?) which monitors harmonization
  - WTO SPS&TBT are currently discussing how to deal with proliferation of private schemes and how to prevent these becoming barriers to trade

**WORKING GROUP 2 – Small-scale farmers, clusters, groups**

**Chair:** Javier Ojeda
**Co-Chair:** George Chamberlain
**Rapporteurs:** Umesh and Dick Callinan
**Members:** Philip Borel, NGUYEN HOAI NAM, Chen Encheng, Chen Wen, Raihan Sh. Hj. Ahmad, Flavio Corsin

The group discussed what aspects should be included in the "Guidelines" addressing the issue of "small farmers"

**What is a small-scale farm?**
Small scale aquaculture farms could/should be defined as having a small production volume, relatively small surface area and managed by persons with limited general/basic education, including on aquaculture. Such farms typically lack resources to enable individual certification.

Other considerations concerned are: production technology (includes stocking density)' resources; number of workers, including owner; economics including annual income, profitability; relative importance of aquaculture as contributor to total income; .ownership
We recommend that other existing definitions be considered as alternatives to, or as modifications of, the above definition.

**Minimum certification standard must be accessible to small-scale farmers, but additional effort/cost may be required from some farmers to comply.**

**Need to identify methods which will enable small scale farmers to be certified.**
Farmer organizations can include:

- Cooperatives
- Groups/clusters /aquaclubs/unions
- Federation (group of clusters)

We recommend that other existing definitions be considered as alternatives to, or as modifications of, the above definition.. Legal status of such entities is preferable. Members should agree to specific commitments in relation to compliance:

- Internal cohesion/organization of farmer clusters, groups, organizations so that sampling can be applied
- Members must use similar production systems
- Members of the group should fit the definition of small-scale farmer
- Group members should be in geographic proximity
- Group must be capable of supporting viable internal control system
- Certified entity shall be the group as a whole
- An effective and documented internal control system shall be in place; this should include a contract signed by each member
- Documented inspections of all group members for compliance with production standards shall be carried out by the internal control systems at least annually.
- Organizational structure such as board, levy to support structure
- Capable of complying with standards
- Operational, including training
- Consequences for lack of compliance (group/individuals)
- Accountability, monitoring practices
- Transparency
- Shared benefits

**Discussion addressed whether certification should be one level only or several, step-wise levels.**
How inclusive the guidelines should be: a number of steps/phased approach in certification programs? Possibilities include:

- An achievable, single-step certification system, minimizing market confusion; standards might be not high enough
- A step-wise approach in which different levels may offer different benefits, including intermediate levels which could offer a B2B advantage.

**Unit of certification**
Units must be (financially?) large enough to be certified. Minimum for small scale producer could be individual farm, but typically will be cluster with a geographic, e.g. common water supply, basis. Upper size limit must be decided.

**WORKING GROUP 3 – Structure**

**Chair:** Felipe Suplicy
**Co-Chair:** Jason Clay
**Rapporteurs:** Paul Holthus and Mathew Parr
**Members:** Philip Borel, Dhirendra Prasad Thakur, Raihan Sh. Hj. Ahmad, A. Hettiarachchi, Jean Dhont, Boedi S. Julianto

Drawing from the outputs/issues of the four group reports, the group developed a structure/format for guidelines, which incorporates these considerations. Bear in mind that agreeing on the contents of "Guidelines" is an ultimate goal of the workshop.

The structure of the guidelines document, developed by the Working Group 3, is given in Annex 6.

**WORKING GROUP 4 – Procedures for Standards**

**Chair:** Supranee Chinabut
**Co-Chair:** Debora Brister
**Rapporteurs:** Aldin Hilbrands and Aaron McNevin
**Mambers:** Achiravit Kiriruangchai, Manat Larpphon, Magnus Torell, Suwimon, Keerativiriyaporn, Leo van Mulekom, Mike Phillips, Simeona Regidor, Stewart Lindale

The group discussed how "Procedures for standard setting" should be addressed to improve the scientific quality, applicability, acceptability, and transparency of the standards and the standard setting process.

**Scope**

1. Certify against standards for food safety, environmental, social and economic issues
   - Should requirements for certification address food safety issues. Are existing systems (Codex) sufficient?
   - Require other food safety schemes based on Codex
   - Codex is clear
   - Don't have the experience necessary to develop guidelines on food safety
   - If important issues are not included in Codex, then those areas should be identified (example, intensive vs extensive)

2. Bring in other organizations' work on standard setting and certification process
   - Reference to page 12 Guideline for the Ecolabelling of Fish and Fishery Products From Marine Capture fisheries
   - Codex

**Procedural Guidelines[8]**

Guidelines for the setting of standards for sustainable aquaculture
**Purpose**
- To define the requirements of a credible standard setting process for sustainable aquaculture which includes [food safety?], environment, [animal welfare?] and/or socio-economic issues.

**Normative basis**
- General references: ISO 59, 62, 65; WTO TBT

| Environmental | Food Safety | Socio-economic | Animal health/welfare |
|---|---|---|---|
| FAO Ecolabelling Guidelines | Codex (govt) | | OIE |
| | Global Food Safety Initiative (private) | | |
| ISEAL | | ISEAL | |

Note: Table to be completed later. Clarify difference between normative and reference documents

**Functions and organizational structure of standard setting body**
- Function
  - Develop, maintain (and own?) the standard - Including standard setting, reviewing, revising, approving, communication and availability
  - Ensure the credibility of the standards – (i) Requirements for independence of accreditation, standard setting, verification/certification; (ii) Transparency; (iii) Stakeholder involvement; (iv) Ensure, independent review of compliance with these requirements

- Organization
  - Governance structure should include appropriate stakeholder representation
  - Group of independent experts who develops and maintains the standards

[8] Adaptation of Structure Section 36 Procedural and Institutional Aspects in Guideline for the Ecolabelling of Fish and Fishery

    - Governance, administration and other support staff should be free of conflicts of interest
    - Should be legal entity
    - Sufficient resources to support the functions of the standard setting body

- Requirements
    - Development – (i) Multi-stakeholder involvement from beginning (govt., NGOs, local communities, producers, value chain enterprises, consumers, accreditation bodies, researchers, etc); (ii) Transparent; (iii) Consensus-driven; (iv) Outreach to stakeholders; (v) Identify and review comparable systems; (vi) Identify research needs and knowledge gaps; (vii) Include requirements of relevant international agreements; (viii) Notification - Process for incorporating stakeholder comments/suggestions and communicate reasons for or against incorporation of comments; (ix) Documentation requirements for standard development process; (x) Develop table with reference standards in food safety, social, environmental and animal health/welfare areas; (xi) Consider division of costs in standards development; (xii) Consider overall cost of standard development and maintenance; (xiii) Develop meaningful, metrics-based standards; (xiv) Validation (Relevance/Auditable); (xv) Regular review and, if necessary, revision of standards and standards setting procedures

- Guidelines for accreditation
    - Purpose – Accreditation provides assurance that the certification bodies responsible for conducting conformity assessments with [food safety?], environment, [animal welfare?] and/or socio-economic standards and chain of custody requirements in aquaculture are independent and competent to carry out such tasks.
    - Normative References – NOTE – review other documentation – (ISO Guide 61, ISEAL, IOAS, Function and Structure)

- Function
    - Accreditation is an independent assessment of the competence of the certification body. The tasks of granting accreditation following successful assessment should be undertaken by competent accreditation bodies. In order to be recognized as competent and reliable in undertaking the assessment in a non-discriminatory, impartial and accurate manner, an accreditation body should fulfill, inter alia, the following requirements – (a) Non-discrimination; (b) Independence, impartiality; (c) Human and financial resources (qualifications of personnel and contractors and sub-contractors conducting assessments are publicly available, Accountability and reporting); (c) Accreditation body must receive external audits and reports must be made available to the public; (d) Notification period such that the public can review and respond to pending decision on accreditation; (e) Resolution of complaints concerning accreditation of certifying bodies; (f) Confidentiality; (g) Maintenance and extension of accreditation; (e) Change in accreditation requirements; (f) Proprietor or licensee of an accreditation symbol or a logo

- Organization
    - Governance structure should include appropriate stakeholder representation
    - Governance, administration and other support staff should be free of conflicts of interest
    - Should be legal entity
    - Sufficient resources to support the functions of the accreditation body
    - Requirements (Public notification of accreditation and methodology for addressing comments)

- Guidelines for certification
    - Purpose – Certification is the procedure by which a third party gives written or equivalent assurance that an aquaculture facility conforms to the relevant standards and that a proper chain of custody is in place.
    - Scope
    - Normative References
    - Function and Structure
    - Requirements – (Independent and impartiality, Non-discrimination, Human financial resources, Accountability and reporting, Certification fees, Confidentiality, Maintenance of certification, Renewal of certification, Suspension

and withdrawal of certification, Maintaining the chain of custody, Use and control of a certification claim, symbol and logo)

- Resolution of complaints and appeals
- Keeping of records on complaints and appeals concerning certification

**ANNEX 5: WORKING GROUP REPORT: SESSION III (DAY4)**

**WORKING GROUP 1 – Social responsibility**

**Chair:** Leo Van Mulekom
**Co-Chair:** Sudarsana Swami
**Rapporteurs:** C V Mohan and Pedro Bueno
**Members:** Nguyen Hoai Nam, Suwimon Keerativiriyaporn, Flavio Corsin, Pradit Chonchuenchob, Felipe M. Suplicy, Dominique Gautier

In the discussion efforts were made to address the following core questions:
- What is social responsibility?
- What is corporate social responsibility?
- What is a normative framework?

**What is social responsibility?**
Social responsibility is outlined in the International Principles on Shrimp Farming – Principle 8 – Social Responsibility. Public and private sectors both are responsible. In particular, the public sector for legislative and regulatory frameworks and providing enabling environments/factors. The private sector is responsible for implementation of the principles.

**What is corporate social responsibility?**
Corporate Social Responsibility (CSR) is defined (by Oxfam) as a firm's commitment to conduct all aspects of its business in a manner that advances rather than hinders human development. Meeting this expectation involves the company accepting responsibility for the impact of its operations, assessing that impact and responding by mitigating negative effects and initiating positive ones.

One about the society, one about the role of the private sector and UN treaties, UN Global Compact, ILO, Aarhus Protocol, etc., should be considered. Social responsibility should include all the stakeholders and all have responsibility and duties for farm and workers, farmers/society around the farm, and country and society as a whole. All players in the supply chain have a responsibility.

Need to identify the social risks/impacts (Social impact assessment) and it is a shared responsibility to address those risk/impacts. Farmers cannot address all the issues by themselves.

Government responsibility is vital for laws, preconditions (planning, zoning etc.). This should be done using a participatory approach and be followed up with multi-stakeholder committees that address impacts (follow-up).

Government is key and should initiate the process (develop a framework), but the continuation and follow up is by the private sector. It is a continuous process where the private sector plays a key role. Including the government into certification schemes however would be difficult

**Normative considerations**
- Role play (everybody should play a role).
- What is the bar? There are some international agreements. Government sovereignty should be preserved.
- Lack of familiarity therefore a working group should be established to identify normative standard that address social responsibility
- Private sector should do what
- Request compliance to normative documents
- Add some additional normative frameworks
- Social responsibility plays a key role in the markets (increasing public awareness and need to address issues widely).
- There are also perception issues because of cultural differences (Developing vs Developed point of view). Need for normative dialogue between producers and consumers' countries
- Meanwhile, private sector actively needs to find out what the problems are and actively address them
- Government has shortcomings sometimes because of lack of resources etc. private sector should take responsibility, but doesn't also imply that the government should be certified
- Maybe have certification at 2 levels. If government has system can have easier auditing?

- UN Treaties on Human Rights, UN Treaties on Human Development; ILO, UN Global Compact, Aarhus Protocol

**Standards and certification**
Certify the results? Certify the role the farm plays also in conflict. Cannot certify the outcome but can certify the role played by the private sector. Encourage private sector to be responsible negotiators.

**Suggested standards and criteria to be used:**
- Livelihoods
- Labour, child labour
- Community impacts
- Health, safety hygiene
- Access to natural resources
- Benefit and risk sharing (allow the other party to share the benefits)
- Fair contract
- Land tenure and/or resource rights
- Conflicts
- Non discrimination (including gender, ethnicity, religion, local/outside)
- Migration, displaced labour
- Training (Related to the job in the farm. Training is needed to do their job and a bit more to advance their career)
- (Help to) Access to basic services (health, water, power, education). Government has responsibility but private sector can help
- Living wage (minimum standard to cover basic needs and rights. There is a difference with minimum wage. Doesn't have a legal basis. UNDP is working on living wages and account for the fact that some government do not calculate minimum wages as true living wages)

We should set different responsibilities for: government, large farms and clusters? The Social Annex of EurepGAP could be an example. Other stakeholders to be involved are: primary stakeholders in the supply/value chain, government agencies, auditors, impacted stakeholders, mass media, etc.

**Conclusion**
- Process to address the questions that could not be addressed at this meeting:
- FAO should establish a working group:
    - perform an inventory of normative standards on social responsibility
    - review other examples including the SA of EurepGAP, RSPO, BBP, and others
    - Also discuss further in Brazil
- Social related items should be mandatory within standards and not just desirable (recommendations)
- Higher degree of consideration (than in current standards/certification schemes) should be given to criteria on social responsibility

**WORKING GROUP 2 – Minimum requirements and/or criteria (core-standards?) which should be included/addressed in the Guidelines**

**Chair:** Alex Brown
**Co-Chair:** Siri Ekmaharj
**Rapporteurs:** Stuart Lindel and Matthew Parr
**Member:** Philip Borel, Dhirendra Prasad Thakur, Raihan Sh. Hj. Ahmad, A. Hettiarachchi, Jean Dhont, Boedi S Julianto

The group brain stormed with the focus on environment, food safety and animal health and welfare. They listed the responses, grouped and ranked them. The results are given below:

| Criteria/Requirement | Response |
|---|---|
| **Pollution, Waste and Effluent**<br>Water and land pollution, Organic matter in effluent Groundwater pollution, Waste disposal and control, Effluent quality, Mortality removal | 20 |
| **Biodiversity impacts**<br>Capture of wild stock for aquaculture, Genetic issues, Predator control, Introduced species, Escapees | 18 |
| **Environment** | |
| **Water Quality, land and water issues, use** | 16 |
| **Site selection (community consultation)** | 9 |
| **Habitat destruction (e.g. Mangroves, Corals)** | 6 |
| **Feed ingredients** | 5 |
| **Farm Management (e.g. effluent)** | 4 |
| **Energy Use/Carbon** | 1 |
| **Food Safety** | |
| **Chemical residues**<br>Antibiotic use, Chemical use, Pesticide use, including predator control, Heavy metals**,** Hormones | 33 |
| **Management tools**<br>Traceability (inc. record keeping, communication), Implementation of HACCP, Clear standards and guidelines, Comply with legal standards, regulations, Farm hygiene and sanitation, Disease control and monitoring, Seed quality control, Personnel requirement and training, Participatory programs for farmers to implement food safety measures | 24 |
| **Harvest and post harvest management**<br>Process management, Purchase, production and storage of input material, Harvest, handling and transport, Freshness, Ice quality, Clean equipment and hands | 15 |
| **Non specified contamination**<br>Toxic residues (including. biotoxin), Contamination (biological, chemical, physical), Water pollution, Feed quality/contamination, Feed safety, fish meal and fish oil | 13 |
| **Biological contaminants**<br>Microbial contaminant, food poisoning shellfis**h** | 5 |
| **Consumer communication**<br>Information to consumers, Traceability and proper labelling | 4 |
| **Animal health and welfare** | |
| **Disease**<br>Disease treatment/control, Biosecurity, Health management programs, Control of movements to minimise pathogen transfer, Disease transmission from farm-wild stocks, Genetic alteration, Veterinary products/antibiotic use | 18 |
| **Stress**<br>Movement and handling, Water quality, Eye removal, Too high/inappropriate stocking density, Monoculture vs polyculture vs biodiversity, Organic and food material | 10 |
| **Slaughter and harvest** | 3 |
| **Predator control** | 1 |

**Discussion Points**

- Posible categorisation: site selection/design; inputs; production activities; processing&distribution; end product
- Management vs. impact
- Environment (water soil) & biodiversity (living part)
- Carbon footprint

**ANNEX 6: AGREED CONTENTS TABLE FOR THE FAO GUIDELINES FOR AQUACULTURE CERTIFCATION**

**Contents**



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**Detailed Contents of the Guideline Documents**

**1. PREFACE**
[to be done]

**2. INTRODUCTION**
[to be done]

**3. SCOPE**
All aquaculture certification schemes should be developed and implemented in a manner consistent with these principles and guidelines

**4. PRINCIPLES**
The following principles should apply to all aquaculture certification systems:

- Be consistent with UNCLOS; CBD; FAO Code of Conduct for Responsible Fisheries; WTO; ILO; Ramsar; SPS, Codex; International Principles for Shrimp Farming; [UNFSA]
- Recognise the sovereign rights of States and comply with all relevant laws and regulations
- Be of a voluntary nature and market-driven
- Be mult-stakeholder, including fair participation by all interested parties
- Do not create unnecessary obstacles to trade and allow for fair trade and competition
- Do not discriminate against any group of producers (e.g. based on scale, intensity of production, or technology)
- Facilitate market access
- Promote sustainable and responsible aquaculture and address social concerns, food safety and food security
- Promote cooperation, e.g. among certification bodies and producers
- Ensure traceability of aquaculture products
- Promote measurable improvements
- Establish clear accountability for all involved parties, especially the owners of certification schemes and the certification bodies in conformity with international standards (e.g. ISO Guide 65, ISEAL Code of Conduct for Standards Setting)
- Incorporate reliable, independent auditing and verification procedures
- Strive for equivalence considering these guidelines
- Be based on the best scientific evidence available, also taking into account traditional knowledge of the resources provided that its validity can be objectively verified

- Be practical, viable, and verifiable
- Ensure that labels communicate truthful information
- Provide for clarity
- Be based, at a minimum, on the minimum substantive requirements, criteria and procedures outlined in these guidelines
- Transparency should apply to all aspects of developing and implementing a certification scheme including its organizational structure and financial arrangements

**5. GENERAL CONSIDERATIONS**
- Principles, minimum substantive requirements, criteria and procedures will apply equally for developed, transition and developing countries
- Involvement of States and regional bodies is desirable and should be encouraged
- The special conditions of developing and transition countries call for financial and technical assistance

**6. TERMS AND DEFINITIONS**
[to be done]

**7. CONSIDERATIONS FOR CREDIBLE AQUACULTURE CERTIFICATION**

**7.1 General/Introduction**

**Guidance for the substantive considerations in developing and implmenting credible aquaculture certification schemes, or benchmarking existing schemes.**

Different certification schemes may focus on all or part of the following components, depending on the objectives of the scheme.

**Certification schemes may apply additional or more stringent requirements and criteria.**

**Certification schemes must require producers to comply with all relevant national and international legal requirements.**

**Unit of certification, e.g.**:
- Farm, group, cluster, hatchery, processing plant, etc
- Geographic unit considerations
- Species considerations

**Consider risk level**

**Management systems**

**Requirements**
(Note: There are large scale considerations beyond the control of the entities that are important, e.g. macroeconomic issues, such as subsidies)

**7.2 Social**
- Livelihoods
- Labor, including child labor issues
- Community impacts
- Health, safety, hygiene
- Access
- Benefit sharing
- Fair contracts/price
- Land tenure and resource rights
- Conflict
- Gender issues
- Migration, displaced labor
- Subsidies

**7.3 Environmental**
- Siting, construction and infrastructure impacts
- Production facility operation impacts
- Appropriate level, e.g. farm level, cumulative effects

- Location, e.g. site, off site
- Biodiversity and ecosystems
- Land and water use
- Waste and pollution
- Exotic and invasive species
- Fisheries impacts, e.g. reduction fisheries, wild caught seed, broodstock
- GMOs
- Energy use, emissions
- Polluter pays

**7.4 Food Safety**
- Traceability
- Residues
- Feed contamination

**7.5 Animal Health and Welfare**
- Bio-security
- Veterinary products
- Disease transfer

**7.6 Economic/Financial**
[need to be done]

**8. PROCEDURAL AND INSTITUTIONAL ASPECTS**

**8.1 Standards setting processes**

**8.2 Principles, Criteria, Indicators, and Standards**

**8.3 Accreditation processes**

**8.4 Certification processes**

**8.5 Governance**

**8.6 Communications**

**9. REFERENCES**
[to be done]

**10. ACRONYMS**
[to be done]

**ANNEX 7: LIST OF DOCUMENTS MADE AVAILABLE TO THE CONSULTATION**

**List of documents submitted by the FAO Secretariat to the Consultation**

- Prospectus and the Provisional Agenda
- Aquaculture Certification: A Programme for implementing the recommendation of the Committee on Fisheries Sub-Committee on Aquaculture (Concepts Notes)

**List of documents submitted by delegates, observers and resource persons**

- Expert Workshop on Guidelines on Aquaculture Certification: Introduction and Objectives
  Rohana Subasinghe & Michael Phillips
- Overview of Aquaculture Certification
  Simon Funge Smith, Flavio Corsin & Jesper Clausen
- FAO Guidelines for Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries
  FAO Fisheries Department
- International Regulatory Framework for fish and seafood safety
  Lahsen Ababouch
- Aquaculture Certification System in China
  Chinese Academy of Fishery Science
- Thailand Experiences in Aquaculture Certification
  Department of Fisheries
- Challenges and Constraints in Adopting Certification from Thai Adopting Producers Point of Views
  Tirawat Leepaisomboon
- Accredited Fish Farm Scheme in Hong Kong
  Chow Wing Kuen
- Best Aquaculture Practices Standards for Certification
  George Chamberlain
- Compliance Evaluation and Certification of Environmental Regulation for Aquaculture in Chile
  Alex Brown
- Aquaculture Certification Perspectives from Brazil
  Felipe M. Suplicy
- Aquaculture certification perspectives from FEAP
  Javier Ojeda
- Aquaculture Certification: WWF's Experiences Regarding Impacts, Standards and Certification
  Jason W. Clay
- An Introduction to EurepGAP: Facilitating Trade through Safe and Sustainable Agriculture
  Nigel Garbutt
- Small scale farmers
  NACA, MPEDA and FAO
- Introducing the ASEM Aquaculture Platform
  Jean Dhont & Patrick Sorgeloos
- NGO perspectives on aquaculture certification
  Leo van Mulekom
- International Federation of Organic Agriculture Movements (IFOAM): The Process of Certification
  Deborah Brister
- Organic Aquaculture Project
  Tarlochan Singh
- Philippines Farm Registration and Inspection
  Simeona E. Regidor, Sonia Somga and Joselito Somga
- GAP and Shrimp farming Certification in Indonesia
  Ministry of Marine Affairs and Fisheries

## ANNEX 8: CERTAIN TERMS AND DEFINITIONS USEFUL FOR AQUACULTURE CERTIFICATION

Following terms are based on 1) ISO/IEC Guide 2:1996 "Standardization and related activities - General vocabulary", 2) Codex Alimentarius "Principles for Food Import and Export Inspection and Certification", and 3) FAO Ecolabelling Guidelines "FAO Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries".

**Accreditation** is the procedure by which an authoritative body gives formal recognition that a body or person is competent to carry out specific tasks. In a certification system, an accreditation body will accredit – or, in simpler language, approve – a certification body as competent to carry out certification.

**Better Management Practice(s) (BMP(s))** refers to management practices aimed at increasing both quantity and quality of products taking into consideration food safety, animal health, environmental and socio-economical sustainability. BMPs have a wider focus than Good Aquaculture Practice (GAP), which mainly target food safety issues. BMP implementation is generally voluntary. The term "better" is preferred rather than "best" because aquaculture practices are continuously improving (today's 'best' is tomorrows 'norm').

Reference:

- Description of shrimp farming BMPs by NACA and the Consortium "Shrimp Farming and the Environment"

**Certification** is a procedure through which recognized (or accredited) certification bodies provide written or equivalent assurance that a product conforms to certain principles, criteria or standards. It can be broken down into four broad categories based on who produces the guidelines and conducts the monitoring.

- **First Party Certification.** A single company develops its own rules, analyzes its performance, and reports on its compliance.
- **Second Party Certification.** An industry or trade association fashions its own code of conduct and implements reporting mechanisms. This can be either voluntary or required for membership. Performance can be disclosed either for individual companies or for larger units of industry (e.g. type of product, country, global, etc.).
- **Third Party Certification.** An external, independent group, sometimes a non-governmental organization (NGO), is involved in creating and developing rules and compliance methods and measures for a particular firm or industry.
- **Fourth Party Certification.** This form of certification involves governmental or multi-national agencies. The UN Global Compact, for instance, lists environmental, labor, and human rights principles for companies to follow. Corporations are required to submit on-line updates for others to scrutinize.

**Certification body** is a body that is responsible for verifying that a product sold or labelled as a certified product is produced, processed, prepared, handled, and traded according to the certification standards. Certification bodies should be impartial third parties with necessary technical competence in certification.

**Certification systems** are generally comprised of two key components:

- A set of principles (usually in the form of a code of conduct), criteria, standards and guidelines against which a product is certified, and
- A reporting or monitoring mechanism that assures the product has been produced according to the certification principles.

**Chain of custody (or traceability)** is the channel through which certified products move from the production unit through processing, storage, and distribution. The chain of custody system should provide credible assurance that all certified products are derived from certified production systems.

**Certification criteria** are the criteria established for certification. They should be precise, objective and verifiable.

**Code of Conduct (CoC)** is usually an "overarching document" comprising a set of principles and criteria that may be used as the basis for certification.

Examples:

- The FAO Code of Conduct for Responsible Fisheries (CCRF) is an internationally accepted CoC for fisheries and aquaculture
- Regional and National CoC based on the CCRF:
  - Code of Conduct by Federation of European Aquaculture Producers
  - Australian aquaculture Code of Conduct
  - Thailand Code of Conduct for shrimp farming

**Code of Practice (CoP)** is usually "lower level" documents that provide guidance on management or other practices to be adopted in implementing the principles of the Codes of Conduct.

Examples:

- Global Aquaculture Alliance (GAA) "Codes of Practice for Responsible Shrimp Farming."
- International council for the exploration of the sea (ICES) "Code of Practice on the Introductions and Transfers of Aquatic Organisms"

**Eco-label** (green marketing, green label) is a seal or label which shows that a certified product has been designed to do less harm to the environment than similar but un-labelled products.

**Fair trade or Ethical labeling** is a certification or labeling scheme designed for products that meet more social and economic (rather than environmental) principles of fair and ethical trade. Fair trade is, however, linked to environmental aspects of resource management and some of the social issues associated with environmental certification.

**Good Aquaculture Practice (GAP)** is a farm management practice and guideline prepared to minimize the potential for farm-raised fishery products to be contaminated with pathogens, chemicals, filth, and unapproved or misused animal drugs. GAP can be defined as those practices necessary to produce high-quality products conforming to food safety requirements.

Examples/References:

- GAP studies U.S. Food and Drug Administration's (FDA)
- Thailand GAP program for farmed shrimp

**Guidance/Technical guidelines** are documents that provide (technical) guidance on implementation of Codes of Conduct, Codes of Practice, certification principles, criteria and standards.

Examples/References:

- FAO has prepared a series of technical guidelines to assist in implementing the CCRF.
- FAO technical guidelines for aquaculture
- FAO/NACA Asia Regional Technical Guidelines on Health Management for the Responsible Movement of Live Aquatic Animals and the Beijing Consensus and Implementation Strategy
- Thailand has prepared "guidelines" to support implementation of the shrimp Code of Conduct.

**Label** is a piece of paper or other material which gives consumers information about the object to which it is fixed. It usually accompanies food, or is displayed near food, including that for the purpose of promoting its sale or disposal. There are numerous private label schemes established by producers and retailers. These vary in nature but usually try to convince consumers via an attached logo or label that the product meets certain standards.

**Label of origin** is a label identifying the country/region of origin on products. Often it accompanies imported products. It is used to provide a minimum of information about a product. A label, or mark of origin, is sometimes seen as a preliminary step towards certification or eco-labeling.

**Manuals** are more technical documents usually providing very practical advice on implementation of the above documents.

Examples:

- Shrimp health management extension manual
- ASEAN: Manual on Good Shrimp Farm Management Practice

**Organic labeling** signifies that the product have been produced following standards for organic production.

**Principles** are the philosophical basis for production of the product, intended to guide producers towards sustainable production. Principles form the basis for more specific criteria or standards.

Examples:

- Code of Conduct (CoC)
- Code of Practice (CoP)
- "The International Principles for Responsible Shrimp Farming"

**Standard** is a rule, regulation, or procedure specifying characteristics that must be met by a product. More and more, standards are expressed as measurements that can be used to show overall performance (results) toward achieving specific principles and criteria. Standards are used to assess the level of performance to measure whether a product can be certified.

Examples:

- Governmental programmes (Thailand, Vietnam, India, Indonesia)
- Retailers/Consumer associations
- GAA/Aquaculture Certification Council (ACC)
- Safe Quality Food (SQF)

**Traceability** (chain of custody) is the indication of the product's origin, or the ability to recall the history, the use, or the localization of an entity by means of recorded identifications. Traceability makes it possible to track a product or a service along its chain of custody from production to consumption.

**Transparency** refers to an open and publicly disclosed process in which a certification system is developed and operated. Consumers and other stakeholder confidence in certification are increased through transparency of the certification system and processes.

**ANNEX 9: PROSPECTUS OF THE CONSULTATION**

**FAO/NACA DEPARTMENT OF FISHERIES THAILAND EXPERT CONSULTATION EXPERT WORKSHOP ON GUIDELINES FOR AQUACULTURE CERTIFICATION**

**BANGKOK, THAILAND, 27-30 MARCH 2007**

**Prospectus**

**Background:**

Driven by concerns over food safety, and environmental and social sustainability of aquaculture production, over the years there have been attempts to respond to the consequent public perceptions and market requirements. Food safety standards have been elevated and international trade regulations tightened. Policy and regulations governing environmental sustainability have been put in place in many countries, requiring aquaculture producers to comply with more stringent environmental mitigation and protection measures. In some countries these changes were initiated by the aquaculture sector itself, usually within the more organized private industry sector to ensure its sustainability and protect operations from poorly managed activities. The private sector has made significant advances in the management of its activities and there are many examples of improved management of farming systems that have reduced environmental impacts and improved efficiency, including profitability, in all regions.

Owing to the need for responding to these environmental and consumer concerns on aquaculture production and in order to secure better market access, there is increasing interest in certification of aquaculture production systems, practices, processes and products from aquaculture. Many markets increasingly recognize that some form of certification is a way of assuring buyers, retailers, and consumers that fishery products are safe to consume and originate from aquaculture farms or capture fisheries adopting responsible management practices. Certification has been introduced to capture fisheries for some time and guidelines for eco-labelling of capture fishery products were developed by FAO in 20059 and efforts are being made to develop eco-labelling guidelines for inland fisheries10.

In several countries, aquaculture producers are introducing environmental certification of aquaculture products, either individually or in a coordinated manner, in order to credibly demonstrate that their production practices are non-polluting, non-disease transmitting and/or non-ecologically threatening11,12. Some countries are attempting to introduce state-mediated certification procedures to certify that aquaculture products are safe to consume and farmed in accordance with certain environmental standards 13. Most of the work done on improved management has been on salmon and shrimp, mainly due to their high commodity value and the importance attached as the most internationally traded products.

Within the context of the application of the Code of Conduct for Responsible Fisheries (CCRF), the FAO Committee on Fisheries Sub-Committee on Aquaculture (COFI/SCA) requested FAO to organise Expert Workshops to make recommendations regarding the development of harmonised shrimp farming standards and review certification procedures for global acceptance and transparency, which will also assist in elaborating norms and reviewing the diverse options and relative benefits of these approaches. In this regard, the Sub-Committee encouraged FAO to play a lead role in facilitating the development of guidelines which could be considered when national and regional aquaculture standards are developed. Several members of the Sub-Committee as well as a number of inter-governmental organizations offered to cooperate at national, regional and international level, and requested FAO to provide a platform for such collaboration. The Sub-

[9] FAO. Guidelines for Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries. Rome., FAO. 2005. 90p.

[10] Report of the Expert Consultation on Guidelines on Ecolabelling of Fish and Fishery Products from Inland Fisheries, Rome, Italy. 23 May 2006 - 26 May 2006

[11] ABCC. 2004. "Código de conduta para desenvolvimento sustentável e responsável da carcinicultura brasileira". ABCC - Association of shrimp growers of Brazil.

[12] The state of world aquaculture 2006. FAO Fisheries Technical Paper. No. 500. Rome, FAO. 2006.

[13] FAO: TCP/CHI/3002 Certification of the compliance of the environmental regulations by the aquaculture industry in Chile.

Committee also requested setting up of an expert group on reviewing certification of shrimp farming systems.

An Expert Workshop on "Guidelines for Aquaculture Certification", as recommended by the COFI Sub-Committee on Aquaculture will be held in Bangkok from 27-30 March 2007. The Bangkok Expert Workshop will be hosted by the Government of Thailand. It will be conducted as a joint FAO/DOF-Thailand/NACA Expert Workshop.

The workshop is the first in a series of workshops/consultations as needed to prepare the international guidelines for the certification of aquaculture products. This initial workshop, being hosted in Asia, will have a strong emphasis on aquaculture products from Asian aquaculture producers. Further workshops are planned for Brazil during July 2007, and possibly elsewhere with the intention of bringing together global consensus on the guidelines and to address other issues and needs around aquaculture certification. Further background is provided in a separate Concept Note available at www.enaca.org/certification.

**OBJECTIVES:**

The purpose of the Bangkok Expert Workshop is to bring stakeholders together to initiate a process for development of guidelines for aquaculture certification as requested by the COFI/SCA. It will assist in scoping the content of the certification guidelines and laying the groundwork for the programme of work on aquaculture certification. In addition, the workshop will look at certification issues specific to the Asian region. This Expert Workshop will complement the regional analysis for Latin America to be done during the planned workshop in Brazil in July 2007.

**EXPECTED OUTPUTS:**

The expected outputs from the workshop, driven by the discussions and perspectives of the participants, are as follows:

1. Stakeholders brought together to initiate process of development of guidelines on certification of aquaculture products.
2. Aquaculture certification status and potential clarified and key issues and constraints identified.
3. Consensus built on the scope of guidelines for aquaculture certification .
4. Initial work on contents of guidelines conducted.
5. Agreement reached on a further process of working together among stakeholders to develop/complete the guidelines

**PARTICIPANTS:**

Participation of a wide range of experts and experiences from all round the world is envisaged.

**WORKSHOP ORGANISATION:**

The workshop will be held in Bangkok, Thailand, involving 30-40 invited participants with different experiences and perspectives on certification of aquaculture products. The workshop discussions will be informed by some initial review papers prepared by FAO, NACA and a papers/presentations from participants. All participants are invited to bring documentation and other materials describing certification programs and experiences and views on aquaculture certification. The major part of the workshop however will be spent on discussions and working together, rather than presentations.