

Study on Eco-labelling of Aquatic Products: General view and future considerations for the ASEAN region

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Executive Summary

The reliance on fisheries and aquaculture in the ASEAN region as a mean of providing foreign revenue, poverty alleviation and food security is evident. However, there is a general concern that overexploitation of the marine resources has made the fisheries productivity continually declining. At the same time, aquaculture has been encouraged to compensate for the reduced marine productivity so as to meet the demand in the global markets. The dependency of fisheries and aquaculture on natural resources and the importance of these sectors when it comes to national economies are also well recognised. Hence, a common concern in the region has been raised over how to maintain sustainable trade of fisheries and aquaculture products for sustainable livelihood of local people.

Trade- and environmental issues associated with fisheries and aquaculture products have been discussed widely in the region. These issues are even more important today due to the increasing demand of environmentally-preferred products by the consumers. As a result, it has become a real challenge for the region to be able to respond to the consumers' expectations. This challenge implies the development of environmentally-friendly fisheries and aquaculture production as well as the communication of environmental information to consumers.

Eco-labelling, also known as Environmental labelling, is a symbol, logo, text or data sheet of environmental profiles attached to a product to indicate its origin from environmentally-sustainable practices. It has emerged as a tool to provide environmental information of products to consumers. Eco-labelling is seen as a mean to differentiate the products to assist consumers in their purchasing decisions for environmentally-friendly products.

The eco-labelling issues have been received a special interest in the international fish trade forum. It is seen as a potential tool to stimulate more responsible fisheries and aquaculture practices and hence improving sustainability. Whilst the eco-labelling principles are consistent with the sustainability concepts, there are however major concern given to its impacts on trade

Due to the many questions raised over advantages and disadvantages of eco-labelling implementation to the ASEAN countries, a regional study on Eco-labelling of aquatic products was initiated by SEAFDEC. The study was conducted with technical support from the Swedish Board of Fisheries and financed by the Swedish International Development Cooperation Agency (Sida), from November 2005 to February 2006. The information regarding eco-labelling issues was obtained from 12 questionnaires, interviews/meetings with 450 people, and 10 site visits in nine countries. It has been compiled to represent the general views and future consideration for the region.

The overall impression based on this regional study is that there are some vague ideas about what eco-labelling is. Its scope and definition is not yet clearly understood. Hence, there are both positive and negative views on eco-labelling from various stakeholders. Most of the countries consider eco-labelling as an environmental management tool to encourage more responsible practices. It is seen as an opportunity to add value, particularly to traditional products, and to facilitate the access to potential markets where a premium price can be expected.

However, many countries look at eco-labelling as a regulation imposed by importing countries to discriminate ASEAN products – this might create a non-tariff barrier to

trade. A great concern over the feasibility and practicality of eco-labelling principle and criteria is given to multi-species fisheries in ASEAN. More importantly, eco-labelling markets are not yet certain and premium price of eco-labelled products are not guaranteed. All countries raise a common concern regarding the practical approaches of eco-labelling implementation in terms of principle and criteria development as well as certification procedures. Costs associated with certification systems are also raised as a major issue of consideration, especially to small-scale producers. Capacity building together with technical and financial assistance is demanded if eco-labelling will be implemented.

On the other side, there are great opportunities for the ASEAN region attached to eco-labelling adoption identified by this study. Eco-labelling principles are consistent with sustainable management strategies practised in the region. Moreover, the eco-labelling criteria seem compatible with the environmental management aspects covered in existing environmental conservation and management programmes. Possible options for eco-labelling schemes have been suggested here: species-, community- and processing-oriented, which are basically originated from extensive, poly-culture or low-input production systems. The institutions responsible for monitoring and certifying environmental management programmes (such as CoC, GAP, BMP or Organic) can be the same for the eco-labelling schemes. The study also found out that there are national eco-labelling schemes in some countries which could be adopted or adjusted to fisheries and aquaculture products.

By analysing the ASEAN situation, issues to be considered concerning the eco-labelling application to aquatic products are:

- Should we consider the opportunities attached to eco-labelling application more carefully to prevent it from becoming a barrier to trade;
- Should we adopt the international Eco-labelling principles and criteria;
- Should we develop regional principles and criteria;
- Should we only ecolabel products that are technically and economically feasible;
- Should we start with species originate from existing sustainable practices; and
- Who should be responsible for the technical and financial supports for further development on Eco-labelling?

In conclusion, several countries share the same opinion that eco-labelling will be implemented only if it is required from importing countries (which is not yet the case). Most of the countries prefer taking the eco-labelling actions step by step, in a very cautious way.

Based on the increased demand for eco-labelled products, it is highly recommended that the eco-labelling issues should be approached in a pro-active way. Capacity and awareness building on Eco-labelling principles and criteria as well as certification procedure should be provided to ASEAN countries – International institutions (SEAFDEC, FAO, and NACA) working and leading on the Eco-labelling issues can take an active role. The practical implementation of Eco-labelling should be demonstrated through pilot projects, which could be the species, originate from existing sustainable practices. To ensure the marketing channels for Eco-labelling products, marketing research should be conducted to identify potential markets and pricing systems; the communication with markets should be performed along with the further development of eco-labelling. All of these will urge the communities to take up the challenge on eco-labelling.

1. Introduction

Throughout the ASEAN region, captured as well as cultured inland and marine fisheries have played a very important role in terms of foreign revenue generation, income distribution and food security. However, most of the ASEAN countries have been enjoying the export earnings at the expense of degraded fishery resources resulting from the continued expansion. Increased demand for fisheries and aquaculture products has also added more pressure on the ecosystems that fisheries and aquaculture themselves rely on. At the same time, there is a growing concern from consumers regarding the environmental consequences associated with fisheries and aquaculture impacts.

Eco-labelling is a seal attached to a product to indicate its origin from environmentally-sustainable practices. It has emerged as a tool to communicate about environmental aspects of products with consumers – to assist consumers in their purchasing decisions for environmentally-friendly products. Eco-labelling has been addressed internationally as one of the trade and environment issues in fisheries and aquaculture sectors. Potential impacts of eco-labelling to international trade have been discussed in the regional fisheries/aquaculture forums.

To anticipate and address the potential impacts of eco-labelling of ASEAN fish and fishery products, a regional study of eco-labelling for aquatic products was initiated in November 2005 by SEAFDEC with technical support through the Swedish Board of Fisheries. The aim of this study is preliminarily to survey the current status of sustainable development of fisheries and aquaculture production in the ASEAN countries, and also to identify opportunities to participate in Eco-labelling to the specific context of the ASEAN region. This report provides the general viewpoints and issues of concern regarding the application of eco-labelling to aquatic products for future consideration for the ASEAN region. It is also expected that the findings from this study will raise the voice of regional concerns in meeting eco-labelling requirements and methods. The main output is to ensure the feasible and practical application of eco-labelling for fisheries/aquaculture products without causing a non-tariff trade barrier to discriminate the ASEAN products in global markets.

2. Methodology

This Eco-labelling study included nine ASEAN countries: Brunei, Cambodia, Indonesia, Lao PDR, Myanmar, Malaysia, the Philippines, Thailand, and Vietnam. The period of study was from November 2005 to February 2006. The method used was divided into three parts: questionnaires (see details in Appendix 1), interviews (see the list of interviewees in Appendix 2) and field visits. The questionnaires were sent to the main institutions responsible for fisheries and aquaculture planning and management in the mentioned countries, followed up by meetings and interviews key persons in more detail including communication with stakeholders (i.e. fisheries officers, fishermen, processors, traders). During the ASEAN tour, also some fishing sites, landing sites, farming sites and processing plants were visited. All information obtained from the questionnaires (12 responses), meetings/interviews (450 people) and field visits (10) were compiled to represent the general views and future consideration for the region.

3. Eco-labelling as a sustainability tool

3.1 Description of Eco-labelling

Eco-labelling, also known as Environmental labelling, is a seal attached to a product to indicate its origin from environmentally-friendly practices. The environmental information provided through ecolabels can be in form of symbols, logos, text, or data sheets. The eco-labelling schemes can be developed by the first, second, third or fourth parties; the first party – producers, the second party – importers, wholesalers or distributors; the third party – non-interest parties such as NGOs; and the fourth party – international organisations. The detailed level of environmental criteria used for eco-labelling can be single/multiple aspects or data sheet of environmental profiles, depending on the type of ecolabel applied.

There are three types of Eco-labels defined by ISO:

Type I, environmental labelling (ISO 14024) – Environmental labels in form of symbol or logo awarded to a product that meet the requirements of preset multiple criteria developed by the third party which are based on life cycle consideration.

Type II, Self-declared environmental claims (ISO 14021) – Environmental claims made by importers, distributors, or retailers indicating a single environmental aspect of product through text and symbol.

Type III, Environmental declaration (ISO 14025) – Detailed environmental declaration through environmental profile data sheet evaluated by using Life Cycle Assessment (LCA) defined in ISO 14040 series.

3.2 General principles of eco-labelling

The overall goal of eco-labelling is to provide information about environmental characteristics of products/services to support purchasing decision for the product with less environmental impacts. The market-driven product declaration through ecolabels is aimed to stimulate environmental improvement, resulting in reduced stress on the environment.

General principles of eco-labelling, based on ISO 14020, include:

- Information provided through ecolabels should provide relevant, accurate and understandable environmental aspects of the product/service;
- Procedure and requirements should not create unnecessary barriers to trade;
- Scientific methodology that is verifiable should be used to support the claims;
- Information concerning procedure, methodology, criteria should be made available to all interested parties;
- All relevant aspects of products life cycles should be taken into account;
- Eco-labelling should not prohibit innovation or potential to improve environmental performance;
- Any administrative requirements should be limited as necessary;
- Development of eco-labelling should be opened to all interested parties; and
- Provide sufficient and understandable information to purchasers.

3.3 Eco-labelling as a fisheries and aquaculture sustainability tool

Eco-labelling has been applied to a variety of industrial and agricultural products to support consumers' decision for environmentally-preferred choices. It is likely to be more applied with fisheries and aquaculture products as a result of growing concerns about their associated environmental impacts. Based on the fisheries and aquaculture context, Eco-labelling principles support sustainability concepts. Moreover, the environmental criteria used for eco-labelling can be compatible with the fisheries/aquaculture environmental management issues. Through the increasing demand for environmentally-responsible products, it is expected that environmental improvement of fisheries/aquaculture production systems will be stimulated. Therefore, eco-labelling is being recognized as a tool to promote sustainable management of fisheries and aquaculture resources and in line with this; ecolabelling can ensure sustainable trade of fisheries and aquaculture products from ASEAN in global markets.

4. Sustainability of fisheries and aquaculture in ASEAN

4.1 Current status and development stage

For fisheries, the general trend of fisheries production in ASEAN is declining. This fact indicates that marine fisheries management practices are not yet in a sustainable manner. Fishing with illegal and/or non-selective fishing gears and over-fishing exemplifies some of the unsustainable fishing. Other possible reasons are that existing laws and regulations are not yet effective to achieve sustainable management. For inland fisheries, spawning grounds are disturbed by roads and dam constructions lead to changes of migration patterns. Flooding also has a great effect on fisheries production. Upstream practices are another factor affecting the fisheries productivity.

For aquaculture, the production is being promoted in the ASEAN region to compensate for the declining in marine capture. More than 50% of the ASEAN overseas fisheries export comes from aquaculture, especially fish and shrimp. Different culturing systems are practised: extensive, semi-intensive and intensive, depending on the land availability, the financial capacity and the farmer preference. Examples of culturing systems practised in the region are: (1) extensive culturing systems: shrimp, milk fish, seaweed, (2) semi-intensive culturing systems: shrimp, tilapia, and carp, (3) intensive culturing systems: shrimp, catfish, tilapia, sea bass, grouper, and carp, and (4) poly-culture systems: Indian and Chinese carps.

4.2 Sustainable policies and regulations

Sustainability is well addressed in national policies among the ASEAN countries. The main elements of sustainable development are: to implement responsible fisheries and environmentally-friendly aquaculture, to sustain economic revenue from fisheries and aquaculture in national economies, and to maintain sustainable livelihood of fishermen particular in rural areas. Supporting laws and regulations are also implemented in most of the ASEAN countries, but at different stages because of different scales of production, structures of industry and management strategies.

4.3 Sustainable management strategies

4.3.1 Fisheries

There are various fisheries management strategies practised in the ASEAN region. Most countries have a centralised authority that set up the policies and strategies but some countries have chose to decentralise the power to regional level (community) to better manage their natural resources.

Licensing systems and other tools

Several different licensing systems are implemented in the region when it comes to fisheries regulations and ways to administer the fish stocks in a sustainable way. The most common are:

- **Vessel and gear licensing system**

The authorities issue licenses to vessels, either in different segments e.g. inshore fisheries and pelagic fisheries or to certain types of fisheries e.g. shrimp trawlers.

- **Gear restrictions**

Certain gears are banned in specific areas and regulations are applied regarding e.g. mesh size of net.

- **Closed seasons and restricted areas**

These tools are used and implemented with the purpose to protect spawning areas and hence improve reproduction of both economical interesting species as well as of endangered species.

- **Zoning systems**

Some countries use this system to demark and secure areas where e.g. only small scale fisheries are allowed. Are also used to demark areas where certain fishing methods are banned or allowed e.g. trawling.

- **Community-based managements**

A community/village or other defined areas in which the citizens take their own responsibility for keeping the fish stocks and environment in a sustainable way.

4.3.2 Aquaculture

There are various management schemes implemented in ASEAN countries to support sustainable development in aquaculture, which are:

- **GAP (Good Aquaculture Practices)**

GAP aims for the sanitary management practices to maintain hygienic conditions in production areas and facilitate to produce good quality and safe products. The management practices required by GAP include clean water supply, a good sanitary facilities, especially the sewage and wastewater systems. GAP is being implemented in hatchery, farm and harvester. In some countries, it is applied on a compulsory basis. In other countries, it is seen as a fundamental guideline for future compliance with the CoC.

- **BMP (Best/Better Management Practices)**

BMP, best available technology and practical means which increase efficiency and productivity and/or reduce or mitigate impacts, is another management tool. It is promoted by NACA, Network of Aquaculture Centres in Asia-Pacific, for minimising the

environmental impacts especially from shrimp farming. Case studies providing the examples of BMPs as well as management practices in several countries have been developed by a consortium under NACA.

- **“CoC”, Code of Conduct for Responsible Aquaculture**

Following the FAO’s Code of Conduct for Responsible Fisheries, the Code of Conduct for Responsible Aquaculture (also known as ‘CoC’) has mostly been developed by the National Department of Fisheries (or equivalent) and implemented in hatcheries and farms. CoC not only focuses on the environmental management systems so as to minimise environmental impacts in a ‘farm-to-gate’ approach but also covers social issues.

- **Organic aquaculture production**

The principles of organic production is based on the International Federation of Organic Agriculture Movement or IFOAM’s standard and have been applied for shrimps (*Peneaus monodon*), which are currently practising in a few countries in ASEAN. The main elements of organic farming systems are: high biodiversity, lower stocking density, organic feed and fertilizer, lower energy inputs, and no use of chemicals.

- **Poly-culture production**

Poly-culture systems use several species in the culturing system to maximize the utilization of the water column and natural food in the ponds. A single ingredient or grain-based feed can also be used for this production system. During the culturing cycle, there is no water exchange. Such systems require low amount of inputs and minimise the environmental impacts. Tilapia-shrimp and Tilapia-Rohu-Big head carp-Silver carp-Mud carp-Grass carp exemplify the poly-culture systems practising.

5. Perceptions, prospects and opportunities for Eco-labelling implementation

5.1 General views and perceptions about eco-labelling

Eco-labelling issues have been discussed widely in the region. Of particular interest is the impacts related to trade and the practical implementation specific for the ASEAN conditions. The overall impressions about eco-labelling, which are the main cause of hesitation in adopting eco-labelling, are:

- Eco-labelling scope and definition is not clear;
- Eco-labelling is not practical to implement; and
- Eco-labelling seems to be a non-tariff barrier to trade.

It should be noted here that a common question raised is how different eco-labelling compared to GAP, CoC, BMP and Organic.

Based on the outcomes of this study, the general perceptions about eco-labelling include:

- Eco-labelling is seen as a regulation imposed by importing countries to discriminate ASEAN products;
- Eco-labelling criteria is not practical for multi-species fisheries in ASEAN;
- Eco-labelling market is not guaranteed, neither is the premium price; and
- Costs associated with certification systems can be a major barrier especially for small-scale producers.

However, these sceptic perceptions are mixed with positive comments, which are:

- Eco-labelling principles are in line with the environmental sustainability concepts;
- Eco-labelling criteria seems to be compatible with the environmental management aspects;
- Eco-labelling can be awarded to some existing sustainable practices; and
- Eco-labelling is a potential way to add value on traditionally produced products and to facilitate market access.

To summarise the general viewpoints, there are both positive and negative views on Eco-labelling. Several countries share the opinion that Eco-labelling will be implemented only if it is required from importing countries (at the moment, it is not) whilst some countries consider that eco-labelling can help stimulating more responsible practices.

5.2 Prospects and opportunities

The demand for eco-labelled products has, as mentioned earlier, increased rapidly during the last years, particularly in the European and US markets. It is likely to be true for the future trend as a consequence of the “Green Procurement” (i.e. purchasing of environmentally-friendly products) policy among authorities and wholesalers. Therefore, eco-labelling should be discussed in a pro-active manner.

There are many opportunities attached to eco-labelling implementation, identified in this study, as follows:

- Eco-labelling schemes are already in place in some countries, but has not yet been applied to many aquatic products;
- Eco-labelling criteria seems to be compatible with the environmental manage issues required in CoC, BMP and Organic production;
- Eco-labelling certification systems and institutions responsible for monitoring and certifying products can be the same as for GAP, CoC, BMP and Organic production; and
- Eco-labelling schemes applicable at international level, such as MAC (Marine Aquarium Council), is implemented in a few countries, which shows that there is already good knowledge existing in the region and advantages can also be made by lessons learned by other certifying bodies.

More importantly, there are several sustainable practices both in fisheries and aquaculture that can be developed into eco-labelled products. Some possible options of eco-labelling schemes to be implemented are proposed here:

(1) species-oriented

E.g. dolphin/turtle conservation programme

Crab bank programme

Purse-seine tuna

Endogenous species (traditional products)

(2) community-oriented

E.g. community-based management schemes

Fishing villages

Aquaculture clubs/associations

(3) processing-oriented (i.e. production processing in a sustainable manner)

E.g. extensive culturing systems/low inputs production systems

Poly-culture systems

“eco-friendly” intensive fish/shrimp farming systems

Moreover, there are also some existing eco-labelling schemes for aquatic products being implemented in ASEAN that proves the possibility to implement eco-labelling in some kinds of products, which are:

- Salted fish product – the declaration of hazardous substance free by the producers;
- Farmed shrimp product – the guarantee of shrimp products produced in an environmentally-responsible manner, certified by the second-party (i.e. Department of Fisheries);
- Organic farmed shrimp product – the claim of organic shrimp production certified by the third-party (i.e. Naturland, Bioagreecer); and
- Marine aquarium organisms – the marine aquarium organisms are guaranteed their origin from sustainable sources including the harvesting method.

5.3 Issues of consideration

The list of issues that should be considered about eco-labelling implementation is detailed below.

5.3.1 Should ASEAN accept or reject?

Why should we not implement eco-labelling?

- There is no practical solution for commercial marine trawlers;
- It is not necessary to export the products to the importing countries required eco-labelled products; and
- The eco-labelling implementation requires too much effort and time.

Why should we implement eco-labelling?

- Increasing demand for eco-labelled products from consumers, global retailers and fast-food chain (e.g. Walmart, Carrefour, McDonald);
- It is possible to ecolabel some existing sustainable practices for adding value and accessing potential markets;
- The environmental criteria of CoC, BMP, Organic seem to be compatible with Eco-labelling;
- Eco-labelling can be a potential way to promote responsible fisheries and aquaculture practices and thus supporting the sustainable use of fisheries resources and aquaculture practices.

For consideration, potential threats for future trade have been highlighted here, which are:

- Environmental characteristics of products are increasingly taken into account when making purchasing decisions through Green Procurement esp. in EU;
- Growing demand of domestic, regional and global markets for eco-labelled products;
- Product declaration has become compulsory in target markets; and
- Recognition of different ecolabelling schemes, and pricing systems.

5.3.2 If we should adopt the eco-labelling scheme, when should ASEAN start?

Should start now because:

- It is likely that eco-labelling will be applied with catfish, tilapia and shrimp which are the major exporting products to main markets;
- The whole procedure of eco-labelling implementation takes time and requires technical as well as financial support thus the application of eco-labelling should go step by step; and
- Practical certification systems for the region level demands efforts and time.

5.3.3 Which member countries should implement eco-labelling?

- All ASEAN countries have opportunities to implement eco-labelling as some sustainable practices are existing; and

5.3.4 How are we going to implement eco-labelling?

Possible options of eco-labelling implementation are by:

- Adopting the international criteria and standard;
- Developing the ASEAN criteria and standard based on the general international principles defined by FAO, IFOAM, etc.;
- Adopting or adjusting national eco-labelling scheme to fisheries/aquaculture products;
- Developing a regional eco-labelling scheme for gaining a higher negotiation power with the foreign markets; and
- Setting up of regional and national certification bodies accredited by international well-recognized accreditation bodies.

6. Conclusions and Recommendations

6.1 Conclusions

The principle of eco-labelling, based on the present level of understanding among ASEAN countries, is corresponding to the environmental sustainability concepts. It is therefore seen as a potential way to stimulate responsible fishing and aquaculture practices. However, the reluctance to adopt the eco-labelling scheme is due mainly to the major concern over its impacts on trade. All countries share a common concern about the practical implementation of eco-labelling specific for the nature of fisheries and aquaculture activities in the ASEAN region. Costs associated with certification systems are also raised as an issue of concern, especially to small-scale producers. Even so, there are several products and processes explored in this study that are being produced in a sustainable way. The most feasible and practical eco-labelling schemes can be divided into three different categories: species-, community- and process-oriented. The products possible to eco-label can be originated from community-based fisheries management or purse seine fisheries, as well as aquaculture products produced from extensive, poly-culture or low-input production systems. In addition, some current environmental management practices can also be eco-labelled and the same institutions can be responsible for monitoring and certifying the eco-labelling schemes. In some countries, eco-labelling is seen as a marketing tool to add more value and to promote their traditional products. Considering the possible options of eco-labelling, it should be seen as an opportunity rather than a regulation imposed by international organisations, favouring western importers.

6.2 Recommendations

6.2.1 The local capacity on eco-labelling principles, criteria development, certification procedures and awareness on sustainability among all stakeholders should be built up;

6.2.2 The practical and relevant eco-labelling principles and criteria for the ASEAN region should be developed;

6.2.3 Pilot projects to demonstrate how to implement eco-labelling of existing sustainable practices should be initiated;

6.2.4 Market studies to further analyse potential markets for eco-labelled products and to investigate how to marketing the products should be conducted;

6.2.5 International institutions like SEAFDEC, FAO, or NACA should take an active role in the further development on eco-labelling of aquatic products for ASEAN; and

6.2.6 Specific controversial issues that are foreseeable as possible environmental criteria to be used in eco-labelling should be received a particular attention – such as research on alternative substitutions for fishmeal.

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Appendix 1: Questionnaires used in this study

Questionnaires Set 1:

List of questions:

1. Are any eco-label schemes active in the country?

Such as: Mangrove Friendly Shrimp farming, Dolphin Free Tuna, or other types of “green labels”

2. If, yes, please provide a copy on the structure, criteria and organization of the scheme

3. Are there examples of companies and various brands that tries to promote their products by adding some “environmental” labels

Such as: organic food, pesticide free, free from antibiotics, etc or “social” labels like the OTOP in Thailand

4. If, yes, please provide a copy or outline of the examples and, as available, information on the strategies behind using the green reference for the products

5. What is the position of the country at international for a with regards to eco-labels – could be indicated by providing a copy of statements at various meetings

6. As available, provide a copy of the general fisheries policy adopted by the country

Appendix 1: Questionnaires used in this study (cont)

Questionnaire Set 2:

List of questions:

1. Do you recognize any office/institution responsible for marketing fish and/or fish products on foreign markets? Would you consider a visit to this institution worthwhile?
2. Could you please name five fisheries that you consider sustainable?
(Note that these fisheries do not have to be based on mainstream Eco-labelling schemes or include systems like HACCP, ISO 9000 or others based on ISO Standards)

If so, what strong factors contribute to sustainability?

- Stable or growing stocks over a long period of time (more than 10 years)
- Good management of fishery carried out by governmental institutions; international, national, regional or local.
- Good management of fishery carried out by nongovernmental institutions, e.g. civil society, unions, cooperatives formed by fishermen/villages.
- Innovative monitoring of fish stocks
- Good initiatives with emphasis on building transparent monitoring- and management systems based on partnership between a wide variety of stakeholders.

3. What organisations (clubs/trade-unions) organize the fishermen or the industry in the various fisheries?

Are any of the above-mentioned groups possible to visit during our days in your country?

4. What international or national NGOs do you consider have a strong impact on the public opinion about what fisheries represent good practise/bad practise in your country?

Appendix 1: Questionnaires used in this study (cont)

Questionnaire Set 3:

Questions	Answers	Additional sources of information (website, institutions/organisations)
1. Current sustainable fisheries management status 1.1 National fisheries plan 1.2 Environmental Management Programmes (such as CoC; GAP; HACCP; National legislations/laws; Organic, extensive, semi-intensive or integrated farming systems)		
2. Species with sustainable practices (if any) and contributions to sustainability (for example, fish stock conservation, good management practices by villagers or small farmer associations, cooperation among fishermen)		
3. Export ability of fisheries products and exporting operation esp. return to small producers 3.1 Marine capture 3.2 Inland fisheries 3.3 Freshwater aquaculture 3.4 Marine aquaculture		
4. Market systems and strategies (how to access potential markets, how to improve competitiveness) 4.1 Marine capture 4.2 Inland fisheries 4.3 Freshwater aquaculture 4.4 Marine aquaculture		
5. Organisations responsible for: 5.1 Product testing (quality, safety) 5.2 Certified body (environmental standards, sustainable production) 5.3 Marketing of fisheries products (such as Consumer association, Ministry of Commerce, etc.)		
6. Constrains in meeting requirements from exporting countries 6.1 Technical aspects 6.2 Financial aspects 6.3 Institutional aspects 6.4 Trading aspects		

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