

Food Safety Standards and
Seafood Exports from Morocco
–
Catalyst or Barrier?

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Abstract

Increased global trade in high-value food products presents new possibilities to developing countries to increase export revenues from agro-food trade. Yet, it also poses new challenges upon these countries to comply with prevailing food safety standards on industrial markets. Increased wealth in industrial countries and a number of severe food safety scandals have jointly contributed to an increasing number and sharpening of such standards; a trend further spurred by the emergence of private food safety standards. Complying with standards often requires big investments, technological skills and a well-functioning institutional framework, which may constitute an obstacle to developing countries' participation in international agro-food trade. Nevertheless, the pressure on developing countries to deliver safe and good quality products may also work as a catalyst to modernization that in the end is beneficial to exports. Developing countries may respond differently though to standards with *exit*, *voice* and *compliance* being the main options to consider; where compliance can be the result of either a *proactive* or *reactive* approach. This paper deals with the impact of food safety standards on Moroccan seafood exports, where it turns out that both the public administration and the seafood export sector early on adopted a proactive compliance strategy that has proved successful for Moroccan seafood exports. Morocco thus constitutes a good example of a developing country where food safety standards have had a positive catalyst effect on the modernization of the seafood sector and contributed to an overall increase of seafood exports.

Keywords: food safety, Morocco, seafood, exports, EU

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شكراً جزئي !

List of abbreviations

ACDI	Agence Canadienne de Développement International
BRC	British Retail Consortium
BSE	Bovine Spongiform Encephalopathy
CCP	Critical Control Points
Codex	Codex Alimentarius Commission
DG	Director General
DH	Dirham
DIP	Direction des Industries de la Pêche
DSP	Diarrhoetic Shellfish Poisoning
EACCE	Etablissement Autonome de Contrôle et de Coordination des Exportations
EFSA	European Food Safety Authority
EU	European Union
EUREP-GAP	Euro-Retailer Producer Working Group
FAO	Food and Agricultural Organization
FDI	Foreign Direct Investment
FPA	Fisheries Partnership Agreement
FVO	Food and Veterinary Office
GATT	General Agreement on Tariffs and Trade
HACCP	Hazard analysis and critical control points
IPPC	International Plant Protection Convention
MPM	Ministère des Pêches Maritimes
NA	North America
OCE	Office de Commercialisation des Exportations
OECD	Organization for Economic Co-operation and Development
OIE	Office International des Epizooties
ONP	Office National des Pêches
PAVPP	Projet d'appui à la valorisation des produits de la pêche
PFDSP	Le Fond du Développement de Secteur Privé
PGQ	Programme National de Gestion de la Qualité
PSP	Paralytic Shellfish Poisoning
RASFF	Rapid Alert System for Food and Feed
SA	South America
SANCO	European Commission Health and Consumer Protection (from French Santé et protection des consommateurs)
SPS Agreement	The Agreement on Sanitary and Phytosanitary Measures

SPS-measures	Sanitary and phytosanitary measures
UK	United Kingdom
US	United States
USA	United States of America
WHO	World Health Organization
WTO	World Trade Organization

Exchange rates

1000 Dirhams = 90.98 €

1000 Dirhams = 109.43 USD

100 € = 1099.11 Dirhams

100 USD = 913.79 Dirhams

Source: <http://www.mataf.net>, 19 December 2005

Table of contents

1	Introduction	1
1.1	The emergence of food safety standards.....	1
1.2	Seafood exports from developing countries	2
1.3	Aim of study	3
1.4	The Moroccan fishery sector.....	4
1.5	Outline of the paper.....	6
2	Food safety standards and developing country exports	7
2.1	Why standards?	7
2.2	Health risks related to seafood consumption	8
2.2.1	Food poisoning.....	9
2.2.2	Diseases caused by natural poisons	10
2.2.3	Hepatitis A	10
2.3	How can developing countries approach standards?	11
2.4	The impact of food safety standards on developing countries’ exports	13
2.4.1	Standards-as-barrier	13
2.4.2	Standards-as-catalyst.....	15
2.4.3	Which perspective is correct?	16
3	The SPS Agreement.....	17
3.1	Definition of SPS measures	17
3.2	Background of the SPS Agreement	18
3.3	Description of the SPS Agreement	19
3.3.1	Harmonization.....	20
3.3.2	Recognizing differences.....	21
3.3.3	Risk assessment.....	21
3.3.4	Transparency	22
3.3.5	Dispute settlement.....	23
3.4	The SPS Agreement and Developing Countries.....	23
4	EU Legislation and Food Safety Standards.....	25
4.1	Legislation regarding the import of fish and fishery products to the EU.....	25
4.1.1	Competent Authority	26
4.1.2	Imports of fishery products according to List I and List II.....	28

4.1.3	Veterinary checks at the point of entry	29
4.2	The European General Food Law	30
4.2.1	The “Hygiene package”	32
4.2.2	Traceability	33
4.3	Hygiene Standards	34
4.3.1	HACCP	34
4.3.2	Private standards within the EU	37
4.4	The EU and the SPS-agreement.....	38
5	Governmental approach towards food safety standards	42
5.1	Governmental development strategies	42
5.2	HACCP in the Moroccan seafood sector	44
5.3	PAVPP	45
5.4	Modernization of the fishing fleet.....	46
6	Assessing the impact of standards on Moroccan seafood exports	48
6.1	Possible impacts of food safety standards on Moroccan seafood exports.....	49
6.2	The impact of food safety standards on Moroccan seafood exports	49
6.2.1	Development of Moroccan seafood exports	50
6.2.2	Geographical distribution.....	51
6.2.3	Export performance at sector level	53
6.3	Summarizing remarks	63
7	Food safety standards: a catalyst to Moroccan seafood exports	64
	List of references.....	66
	Appendix	70
Appendix 1	– Fisheries Partnership Agreements	70
Appendix 2	– List of interviews	72
Appendix 3	– Technical assistance and SDT in the SPS Agreement	74
Appendix 4	– List I and List II countries	77
Appendix 5	– Examples of the seafood supply chain	80

List of figures

Figure 1.	<i>Composition of agricultural exports from developing countries</i>	p. 3
Figure 2.	<i>FDI in millions of Moroccan Dirhams 1993-2003</i>	p. 6
Figure 3.	<i>Development of Moroccan seafood exports 1993-2003</i>	p. 51
Figure 4.	<i>Development of exports to major export markets 1993-2003</i>	p. 53
Figure 5.	<i>Exports of canned sardines by volume</i>	p. 55
Figure 6.	<i>Development of unit value for canned sardine exports 1993-2003</i>	p. 56
Figure 7.	<i>Exports of semi-preserve anchovies products 1993-2003</i>	p. 57
Figure 8.	<i>Development of unit value for semi-preserved anchovies exports</i>	p. 58
Figure 9.	<i>Volume of exports of frozen fish to major export markets 1993-2003</i>	p. 59
Figure 10.	<i>Unit values of frozen product exports</i>	p. 60
Figure 11.	<i>Exports of main fresh fish products to the EU 1993-2003</i>	p. 61
Figure 12.	<i>Unit values of fresh fish exports to the EU</i>	p. 62

Appendix 5

Figure 1.	<i>From catch to processing industry</i>	p. 81
Figure 2.	<i>Example of the processing industry</i>	p. 82

List of tables

Table 1.	<i>Most common international food safety regulations and legislation</i>	p. 34
Table 2.	<i>The Seven Steps of Hazard Analysis Critical Control Points</i>	p. 36
Table 3.	<i>Overview of the Evolution of EU Legislation on Food Safety with special regard to Fish and Fishery products 1990-2005</i>	p. 40
Table 4.	<i>Development strategies for the Moroccan seafood sector</i>	p. 44
Table 5.	<i>Development of exports shares a percentage of total export volume 1993-2003</i>	p. 53

1 Introduction

Bygone are the times when ships arrived in European ports loaded with coffee, tea, cocoa, sugar, cotton and tobacco from distant colonies to the delight of distinguished ladies and gentlemen. Increased wealth in the industrialized countries has now made these exquisite tastes accessible for everybody, as technical advance and social change have brought continents and societies closer to each other, with international trade being the vital link between the former separated worlds. Changes in consumer tastes, advances in production, transport and other supply chain technologies over the last decades have spurred international trade in high-value food products, altering the composition of exports from developing countries to the developed world. This increase has reduced developing countries' dependence on traditional commodity exports and presents a possibility of higher revenues from food exports. However, trade in high-value foods also presents new challenges for exporters in meeting consumers' high demands on product quality and food safety.

1.1 The emergence of food safety standards

The past years' food scandals have increased overall awareness of food safety among both consumers and policy makers in industrial countries. Standards and regulations concerning food quality and product safety have increased in response to this and there is an on-going debate on whether these standards constitute a barrier or catalyst to trade for developing country exporters. On the

one hand, conforming with standards often demand big investments, technical knowledge and an adequate institutional framework which may constitute a barrier to trade. On the other hand, standards can also work as a catalyst to modernization and contribute to the creation of competitive advantages; resulting in increases of both export volume and unit value. This is an important issue, since trade in high-value foods represents one possibility for developing countries to trade their way out of poverty.

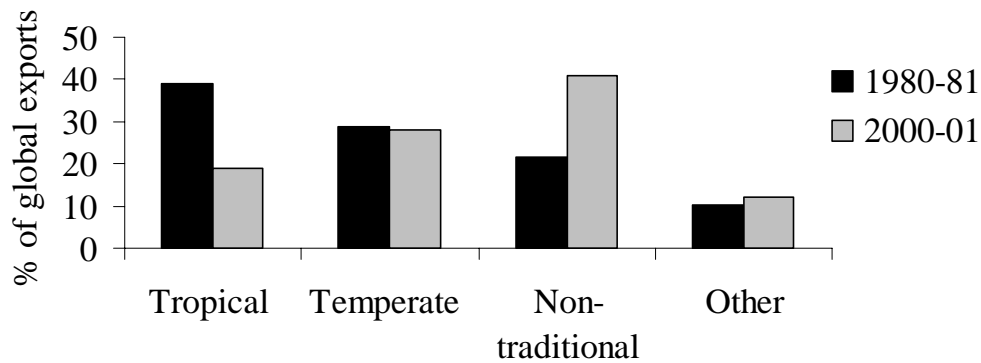
1.2 Seafood exports from developing countries

Over the past two decades, the share of traditional tropical products in developing country agricultural exports has halved while the share of non-traditional products have doubled (Figure 1). Within the non-traditional product group, export of seafood is what has increased the most; from 6.9 to 19.4 percent over the past two decades. Many developing countries have large marine resources, and since the mid-1970s developing countries have doubled their production of fish intended for human consumption, while the production has remained practically unchanged in industrial countries.¹ Developing countries now account for about half of global seafood exports.² The EU, USA and Japan are the most important markets for many developing country seafood exporters and together these countries account for about 80 percent of world seafood imports. Exports to these markets are high-value compared to exports to other developing countries. The ability to export to the European, Japanese and American markets is therefore of great importance to developing country seafood exporters. However, with the increasing number and sharpening of food safety and quality standards in these markets, there is a risk of marginalization of developing country exporters not able to comply with prevailing standards.

¹ Henson et al. (2005)

² World Bank (2005)

Figure 1. Composition of agricultural exports from developing countries



Tropical: Coffee, cocoa, tea; nuts and spices; textile fibres; sugar and confectionary.
Temperate: Meats, fresh and processed; milk and milk products; grains; animal feed; edible oil and oil seeds.
Non-Traditional: Seafood, fresh and processed; fruits, vegetables, and cut flowers.
Other: Tobacco and cigarettes; beverages, alcoholic and non-alcoholic; other products and processed food.

Source: Aksoy (2005), p. 29

1.3 Aim of study

The aim of this study is to examine how food safety standards have affected seafood exports; as a catalyst or barrier to trade and to examine the strategic approach with respect to exit, voice and compliance. Morocco was selected for this study since the country has an important fishery sector and largely depends upon exports to industrial markets; notably the EU, although for some sub-sectors the US and Japan also constitute important export markets.

1.4 The Moroccan fishery sector

With a GDI per capita of 1520 USD (2004), corresponding to about 4 USD per day, Morocco belongs to the group of countries that the World Bank defines as lower-middle income.³ Morocco's GDI per capita is to be found in the lower range within this group and is comparable to that of Swaziland and Turkmenistan. It is also inferior to the other North African countries except Egypt whose GDI per capita lies slightly below Morocco's. This means that the country is relatively poor, hence it is likely to face problems related to compliance with international food safety standards.

With more than 3,500 kilometres of coastal line along both the Atlantic Ocean and the Mediterranean Sea, the Moroccan waters possess a great richness of species. The fishery sector is vital to the Moroccan economy, accounting for 55 percent of agro-food exports and 15 percent of total exports. 85 percent of landings come from the coastal fishing fleet; made up of 17 000 traditional boats and 1700 fishing vessels. The remainder is caught by 356 high sea vessels mostly equipped for shrimp and cephalopod fishing.⁴ 120,000 workers derive their income directly from the sector and in addition to this 280,000 people indirectly depend upon the fishing industry.⁵ Yet, local consumption is low and the vast majority of landings are destined for export markets, notably the European Union but to some extent also the US and Japan. Starting out with exports of canned sardines 80 years ago, the fishery export sector has now evolved to include exports of semi preserved products, fresh and frozen seafood, fish meal and alga.

Due to the historical dependence on industrial countries for exports, it is likely that the Moroccan fisheries sector has received some foreign direct investments

³ The World Bank defines a country as lower-middle income if its GDI per capita lies between 826 and 3255 USD (2004).

⁴ MPM/DIP (2002)

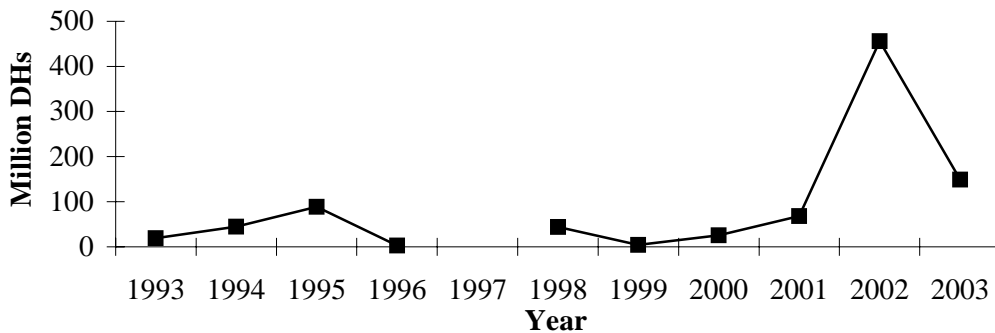
⁵ FAO Fishery Country Profiles

(FDI) from industrial trading partner countries aimed at assuring good quality products to importers. Moreover, FDI may also benefit domestically-owned firms through spillover effects of both technology and knowledge; thus increasing overall performance of the sector. There may however be a certain time-lag between FDI and spillover effects, so the subsequent increase of exports is not likely to show until a couple of years after the FDI. In Morocco's case, FDI increased between 1993 and 1995 to almost cease between 1995 and 1998. Since 1999, FDI has again increased with a remarkable peak in 2002. When studying Moroccan seafood exports in general and especially with regard to FDI, it has to be borne in mind that Morocco for a decade between 1989 and 1999 was engaged in a fisheries partnership agreement with the EU.⁶ During the latest agreement lasting between 1995 and 1999, FDI was almost zero but started to rise again in the year 2000 as a likely consequence of the ending of the agreement. As a matter of fact, Japan has invested substantially in the Moroccan fishery sector by engaging in a big project that consists of constructing a number of modern fisheries villages in the country. Aim is to provide the fishermen with the best possible conditions and infrastructure and also create a micro-pole of development around the village. To date, the project involves four villages; Imessouane in the province of Al Houceima (50 millions of dhs), Cala Iris in the province of Agadir (68 millions of dhs), Souiria Kdima in the province of Safi (86 millions of dhs) and most recently in 2004 Sidi Hsaine on the Mediterranean coast for which the estimated amount is 60 millions of dirhams.⁷ The peak of FDI in 2002 is probably due to these investments even though information confirming this assumption has not been accessible in the field.

⁶ In 2005 Morocco again signed an agreement with the EU. See Appendix 1 for a detailed account of the content of these agreements.

⁷ MPM

Figure 2. FDI in millions of Moroccan Dirhams 1993-2003



Source: IMF Country Reports No. 05/419; 03/163 and 98/42. Note that these country reports do not cover the year of 1997.

1.5 Outline of the paper

The next chapter gives an account of the need for food safety standards and their possible impacts on developing country exports. Chapter 3 then provides an insight into the WTO (World Trade Organization) framework for the use of food safety standards and in chapter 4 the EU food safety regulations affecting seafood imports are described. Then after having covered the regulatory framework, chapter 5 gives an account of the Moroccan governmental approach towards food safety standards while chapter 6 deals with the seafood exporting industry both regarding export performance and the perception of standards of Moroccan seafood exporters. Chapter 7 concludes the paper.

2 Food safety standards and developing country exports

Increased trade in high-value food products may provide us with an almost endless variety of diversified products from all over the world and food from distant cultures now form part of western everyday cuisine. Eating, however, might be a risky business. Food may contain substances that can be harmful to human health; either instantly (i.e. salmonella, listeriosis) or indirectly by increasing the risk of chronic diseases. Food and feedstuff can also carry diseases that may harm animals and plants. Past experiences with BSE (Bovine Spongiform Encephalopathy), Foot & Mouth Disease and most recently, Avian Influenza, together with discussions of genetically modified foods and antibiotic use, have increased consumers' awareness of possible threats through food consumption. Consumers demand to know that what they are buying is safe to eat, and citizens want imports to be free from diseases and epidemics harmful not only to humans but also to animals and plants. This calls for standards protecting human, animal and plant life and health, so-called sanitary and phytosanitary measures (SPS-measures).

2.1 Why standards?

Both farmers and the food industry have incentives to supply safe products. The possible damage of an incident related to a product in their product range is not

limited to the direct costs of decontamination and lost sales from a retrieved consignment. If consumers lose confidence in the product or brand the consequences may be even more far-reaching. Another incentive for firms to provide safe products is to stay competitive as consumer demand for product safety increases. However, providing safe food is costly. Profit maximizing firms may thus be tempted to bend the rules if consumers are unable to assess the possible risks of consuming a certain product, or if the possibility of tracing the source of a health risk is small or even inexistent. This constitutes a market failure in the market of food safety and quality that needs to be corrected for by official measures; guaranteeing consumers a certain level of protection and information.⁸ Moreover, being ill is costly for the individual, (i.e. income loss due to sick leave), but even more so for the state since the state provides health care, making up another incentive for the state to take actions aimed at food safety. As far as private standards are concerned, these are often even stricter than the official measures and may contain requisites not only on food safety but also on visible quality, ecological as well as ethical production methods etc.

2.2 Health risks related to seafood consumption⁹

The health risks related to seafood consumption are mainly due to contaminants being present prior to the capture or caused by mishandling of the catch. Micro organisms like bacteria, fungus, parasites and certain types of viruses are part of the natural ecology of the marine environment and even though most of them are harmless some might cause illnesses among humans. Otwell and Lawlor group

⁸ World Bank (2005), Box 1.1, p. 9

⁹ The content of this paragraph originates from processing of data from FAO Fisheries Technical Paper No 381: *Seafood Safety – Economics of Hazard Analysis and Critical Control Point (HACCP) programmes*. Information about the actual diseases has been obtained from the Swedish Institute for Infectious Disease Control as well as the National Food Administration.

illnesses associated with seafood consumption into four general categories: 1) consumption of raw seafood; 2) eating certain types of seafood from certain areas; 3) mishandling; and 4) chemical pollutants.¹⁰ Moreover, illnesses can be divided into groups depending on the source of disease like bacteria, virus, natural poison etc.

2.2.1 Food poisoning

The biggest health risk associated with seafood consumption is *food poisoning*. Food poisoning occurs through ingestion of food contaminated by harmful bacteria generally giving rise to symptoms such as diarrhoea, abdominal discomfort or cramps and fever. Normally the symptoms are over within twenty-four hours but some types of food poisoning may last from weeks up to months.

There are two groups of food poisoning: *infection* and *poisoning*. Infection occurs when bacteria attack the intestine causing an inflammation. *Salmonella* is the most common bacteria causing an infection but two forms of the bacteria *vibrio*; *vibrio cholerae* and *vibrio parahaemolyticus* are also quite frequent. *Vibrio cholerae* is the cause of *cholera*; an infection of the small intestine that through its symptoms diarrhoea and vomiting causes severe life-threatening dehydration. Other bacteria causing infections are *shigella*, *E. coli* and *campylobacter*.

Poisoning is caused by toxin-producing bacteria in the food. *Staphylococcus* is the most common bacteria causing poisoning and is engendered through unhygienic food-handling.

¹⁰ Otwell and Lawlor, (1989)

2.2.2 Diseases caused by natural poisons

In the marine environment there are a number of naturally occurring substances that might be harmful to human health. *Histamine* is a substance naturally occurring in mackerel and tuna. If mishandled, the substance is broken down by bacteria and thus becomes poisonous; causing a health condition similar to an allergic reaction.

Marine algae toxins are another group of poisons produced by algae plankton that is feed for many marine species. Mussels and oysters are the types of seafood most likely to contain these toxins, but mackerel, lobster and crab may also contain these toxins. These toxins give rise to mainly two poisonous states: *Diarrhoeic Shellfish Poisoning (DSP)* and *Paralytic Shellfish Poisoning (PSP)*. Usually these diseases are over within a couple of days but PSP might in rare cases provoke a life-threatening paralysis of the breathing organs.

2.2.3 Hepatitis A

Hepatitis A is a relatively common disease caused by ingestion of seafood. It is caused by an intestinal virus and is spread by human excrements through water. Hygienic handling of food throughout the supply chain is therefore of crucial importance to avoid this health risk. However, the virus may also occur naturally in oysters and mussels since these species may extract it from the water. The hepatitis virus attacks the liver which causes an inflammation. Eyes and skin then get a slightly yellow tone; hence its other name *jaundice*. The symptoms of jaundice are diarrhoea, fever, nausea, loss of appetite and fatigue. The symptoms generally disappear after 2-5 weeks but the fatigue can last for months.

To sum up this section, food poisoning is the biggest health risk related to seafood consumption. Mishandling of the food constitutes a great risk but the products also need to be checked for incidence of natural poisons. Importing countries therefore need to assure that imported seafood is safe, which is done by regulating processing procedures and formulating maximum levels for dangerous substances in the final product.

2.3 How can developing countries approach standards?

For industrial countries with modern technologies, skilled workers and access to capital, complying with standards is rarely a problem but, for producers in developing countries, exporting to industrial markets imposes higher demands all along the supply chain. Complying with standards often requires big investments, and even though industrial markets are the most lucrative, developing country producers might instead re-orient their exports towards markets with lower standards. A recent study by the World Bank identified three possible strategies for developing countries to take, by force or by choice, in response to the constantly increasing food standards imposed on them by their industrial trading partners:¹¹

- *Exit.* This strategy does not need to be synonymous with going out of business. Most likely it means a re-orientation of exports towards markets with lower standards easier to comply with. There are two different reasons for why opt for this strategy:
 - 1) Lack of resources to make the investments required to comply with standards. (Force).

¹¹ World Bank (2005), pp. 37-41

2) It is judged more profitable to *not* invest and instead re-orient exports than to make the investments and stay on the market. (Choice).

- *Voice*. Developing countries may influence the setting of standards and the international regulatory framework by participating in standard-setting organizations such as Codex and in WTO-panels. Exporters may also influence the setting of private standards through dialogues with their retailer trading partners.
- *Compliance*. Adjustment to standards through taking required set of legal, administrative, technical and organizational steps to comply with standards.

Considering the above strategy of compliance, this is likely to result in a competitive advantage over non-complying actors. Noteworthy though is that compliance may be motivated by different factors. First of all it may be part of a *proactive approach* towards standards, where measures are taken to anticipate new standards. Secondly, compliance can be the result of a *reactive approach* when measures are not taken until standards actually have entered into force or until a real problem is faced; i.e. exports being subject to a ban by an important importer. With regard to the expected competitive advantages following upon compliance, the proactive approach seems to be more advantageous than the reactive approach.

Each of these three strategies has been applied to some degree in all of the countries in the study carried out by the World Bank, although with varying emphasis. Influencing standards might be difficult for developing countries, especially for smaller countries and even more so for individual suppliers. Moreover, compliance normally requires big efforts and investments, and lack of financial resources may constitute an obstacle to compliance for many

developing countries. Since developing countries that do have the possibility of complying with standards seem to have a lot to gain from this, one might suspect the exit strategy to be one more of force than of choice.

2.4 The impact of food safety standards on developing countries' exports

The capacity for developing countries to comply with standards depends upon many factors such as existing infrastructure, educational level, the state of institutions and the ability to free resources for investments; factors usually linked to a country's or region's overall development level. The impact of food safety standards on developing countries' exports is therefore ambiguous. On the one hand, where developing country capacity to comply with standards is small, food safety standards may constitute a barrier to trade. On the other hand, where capacity is higher, standards may function as a catalyst to modernization of export supply chains that in turn then stimulates increased exports. In the literature and the debate on food safety standards and developing countries, *standards-as-barrier* is by far the dominant perspective but recently the *standards-as-catalyst* perspective has attracted increased attention.¹²

2.4.1 Standards-as-barrier

This perspective collects different concerns about food safety standards as a barrier to trade. First, there is a misgiving about standards being used for protectionist purposes to compensate for the reduction of tariff barriers and

¹² See World Bank (2005), Table 1.2, p. 5 for an overview of the analytical spheres for standards and developing country agro-food trade.

subsidies on agricultural products. For seafood, this is however not so likely since tariffs and subsidies are low or even inexistent. Nevertheless, even though not protectionist or discriminatory, standards can still constitute a barrier to trade in several other ways. The great divergence in national standards, their growing complexity and the increase of both public and private standards together with the lack of administrative, technical, financial and scientific capacities to comply with standards are a great challenge for many developing countries to overcome, and represent a possible impediment to agricultural trade flows from developing to industrial countries.

There are however several possible ways to meet a standard, so the adjustments and resources needed to comply with standards may vary widely between both industries and individual firms. At the public level, many developing countries do not have the adequate institutional framework, laboratory capacity or necessary technical expertise to carry out surveillance and risk assessments required by importing countries. At the firm level, the picture is more diversified. In the case where the administrative, technical and financial resources are available at the country or industry level, individual firms' capacity to comply might vary to a substantial extent. The investments needed to meet food safety requirements generally include high fixed costs. Therefore, where economies of scale like in the seafood processing industry characterize production, especially smaller players risk being marginalized by rising standards. This is due to costs being proportionately higher for smaller firms than for larger ones that can spread their fixed costs over a greater number of units produced.

This standards-as-barrier perspective offers a fairly negative view on the impact of standards on developing countries. It almost seems like compliance with standards is a do-or-die situation with little hope of success for countries not

complying with international food safety standards.¹³ However, standards are indisputably here to stay and in recent years another more positive view on standards has emerged, regarding standards as a catalyst to modernization and consequently also a catalyst to increased exports to high-value markets.

2.4.2 Standards-as-catalyst

In sharp contrast to the above view on standards is the standards-as-catalyst perspective emphasizing the possibilities of compliance. First of all, compliance with standards may provide a powerful incentive to modernization all along the export supply chain. This in turn may reduce waste, facilitate the assessment of production costs and improve work discipline with efficiency gains, lowered production costs and increased competitiveness as probable consequences. Compliance with standards thus constitutes a competitive advantage, enhancing instead of impeding trade. Second, a clear regulatory framework also brings clarity to the management functions of the government, which is crucial to the reliability of the controls preceding exports. The combination of a well functioning supply chain and a reliable control system sends out positive signals to importing countries, individual firms and consumers, offering exporters a possibility of re-positioning on current markets and also a possibility of accessing new markets. In addition, a number of positive spillover effects may occur through compliance. Food borne illnesses is a major problem in many developing countries where medical resources are scarce and, by upgrading of the food processing industry and overall hygiene standards, domestic food safety and animal and plant health may be improved. Moreover, compliance might have positive effects on the employment of skilled workers and contractors and local firms are also likely to benefit through locally sourced building materials and technical services.

¹³ Jaffee and Henson (2005), p. 99

2.4.3 Which perspective is correct?

As has been showed, the impact of standards depends on many factors such as the conditions for the specific market, product and country. Even within a country, firms are affected differently. Therefore it is not possible to state that the impact of food safety standards on developing countries is either positive or negative. Instead, an impact in both directions is possible. It is however reasonable to assume that poorer countries are more prone to be affected negatively by standards and that more advanced developing countries have better overall possibilities of complying with industrial countries' food safety demands. This means that less developed countries run a risk of being further marginalized by standards and that the gap between poorer and more advanced developing countries may widen.

3 The SPS Agreement

Indisputably, there is a need for food safety standards but in order for these not to be used for protectionist purposes or in other ways constitute an unjustified or unnecessary obstacle to trade, the application of standards needs to be regulated. The *Agreement on the Application of Sanitary and Phytosanitary Measures* (the SPS Agreement) is the WTO regulation that constitutes the framework for how member countries may apply food safety and animal and plant health regulations. The basic aim of the Agreement is to maintain the sovereign right of any government to provide the level of health protection it deems appropriate without distorting trade more than is absolutely necessary. This is the very rationale for the Agreement setting out the rights and responsibilities for WTO members wanting to take actions to restrict imports for the sake of protecting human, animal or plant life and health.

3.1 Definition of SPS measures

For the purposes of the SPS Agreement, food safety standards are designated *sanitary and phytosanitary measures* (SPS-measures) and are defined by the WTO as any measures applied:

- to protect human or animal life from risks arising from additives, contaminants, toxins or disease-causing organisms in their food;
- to protect human life from plants- or animal-carried diseases;

- to protect animal or plant life from pests, diseases, or disease-causing organisms;
- to prevent or limit other damage to a country from the entry, establishment or spread of pests.¹⁴

SPS-measures can take many forms such as requiring products to come from a disease-free area; inspection of products; specific treatment or processing of products; setting of allowable maximum levels of chemical substances or permitted use of certain additives in food.

3.2 Background of the SPS Agreement

During the Uruguay Round, developing countries raised the concern that sanitary and phytosanitary measures would be used for protectionist purposes as agricultural trade was to be reformed with respect to trade distorting non-tariff barriers and agricultural support. GATT (General Agreement on Tariffs and Trade) Article XX (b) already stated the members' right to take measures to protect human, animal or plant life and health as long as they did not unjustifiably discriminate between countries with equal conditions or constitute a disguised barrier to trade. However, developing countries claimed that SPS-measures were already being used for protectionist purposes. Moreover they highlighted the fact that the great variety of standards among countries constituted a major barrier to trade since adapting products to different requirements in different markets represents great costs. It was clear that both stricter rules for the use of SPS-measures and an international harmonization of applied regulations were needed if global agricultural trade was to function efficiently. The Uruguay Round negotiations resulted in the Marrakesh

¹⁴ The SPS Agreement, Annex A, paragraph 1

Agreement establishing the World Trade Organization, where the SPS Agreement is included. Compared to GATT Article XX (b), this agreement sets clearer and more detailed rights and obligations for food safety and animal and plant health measures affecting trade. It also expresses the ambition of international standardization and encourages WTO members not only to make use of international standards where they exist, but also to take an active part in the standardization work. Noteworthy is however that the SPS Agreement only applies to public food safety standards, meaning that there is no framework restricting private standards.

3.3 Description of the SPS Agreement

The SPS Agreement states the sovereign right for member countries to take trade restricting actions where the life and health of humans, animals and plants are at risk as long as these measures are not arbitrary, discriminatory, unjustified, unnecessary or disguised barriers to trade. To thwart such measures from being illicitly used, measures must rely on scientific principles and not be maintained without sufficient scientific evidence. Measures apply equally well to domestically produced food and feedstuffs, local diseases and imports.

However, what actually constitutes a risk and what should be considered scientific evidence are open to for subjective interpretations. It was therefore of great importance that the Agreement was designed to deal with the sensitive balance between rights and obligations; between protection and protectionism.

3.3.1 Harmonization

An important element of the SPS Agreement is the harmonization of standards. Different standards on different markets present notably two problems to producers. First it takes a lot of time and effort to gather information on the wide range of standards. Second, adapting to a variety of standards means additional costs compared to just needing to comply with one single standard.

The WTO itself does not set any standards but encourages its members to harmonize their standards with the ones set by the following international organizations:

- For *food safety*: the joint United Nation bodies Food and Agricultural Organization (FAO) and World Health Organization (WHO) *Codex Alimentarius Commission* (Codex).¹⁵ Created in 1963, its purpose is “protecting the health of consumers and ensuring fair trade practices in food trade, as well as promoting the coordination of all food standards undertaken by international governmental and non-governmental organizations.”
- For *animal health*: the *Office International des Epizooties* (OIE).¹⁶ The OIE is engaged in a lot of activities but its mandate, under the SPS Agreement, is “to safeguard world trade by publishing health standards for international trade in animals and animal products”.
- For *plants*, it is the *FAO International Plant Protection Convention* (IPPC) that should give guidance.¹⁷

¹⁵ <http://www.codexalimentarius.net>

¹⁶ <http://www.oie.int>

¹⁷ <http://www.ippc.int>

It is important to note that national standards do not violate the SPS Agreement just because they differ from international norms. Members are free to apply both lower and higher standards, but when implementing higher standards they should justify that action with scientific evidence.

3.3.2 Recognizing differences

Differences in climate, existing pests and diseases and food safety conditions mean that it is not always ideal to apply the same requirements worldwide. Therefore, requirements may vary depending on the country of origin and the food, animal or plant concerned. For example, in case of a detected disease there might be disease-free areas within a country for which trade should not be restricted. Moreover, there are often several ways to achieve an acceptable level of risk. Among technically and economically feasible alternatives, governments should choose to adopt the less trade-restrictive possibility of meeting their objectives. In the case where countries use different methods, these should be considered equivalent if providing the same level of health protection. The concept of equivalence is thus of great importance when bilateral and multilateral agreements are made among trading partners.

3.3.3 Risk assessment

Protecting human, animal and plant life and health without unjustifiably distorting trade makes risk assessment a central issue of the SPS Agreement. To avoid arbitrary measures it is therefore stated that risk assessment techniques be internationally accepted and that a member upon request should be able to present the factors taken into consideration. However, in the concept of risk there

also lies a certain degree of uncertainty. Therefore three different types of precautions are provided for in the Agreement. First, safety margins are allowed to ensure that adequate precautions are taken to protect health. Second, what is determined an acceptable level of risk may vary among member countries. A higher income level usually means higher risk aversion since consumers are willing to pay higher premiums for guaranteed safe products. Members thus have the right to determine their own acceptable level of risk as long as it does not violate the basic principles of the Agreement, and hence can respond to national concerns regarding necessary health precautions. Third, in the case where sufficient scientific evidence does not exist, a government has the right to take precautionary measures. This right is very important in emergency situations where immediate measures, like import bans, need to be taken.

3.3.4 Transparency

Transparency of regulations is of crucial importance to guarantee the justification of measures taken. This is attained through the exchange of information between governments on new or changed SPS measures. In addition, when requested, all countries that have signed the Agreement shall be able to provide a demonstration on how to apply their SPS regulations. The exchange of information and the openness to review of measures should provide a better basis for national standards as well as protecting consumers and trading partners from disguised protectionism.

For this purpose, members must notify the WTO Secretariat in advance when adopting or changing a measure different from an international standard. This information is then transmitted to the other WTO member governments and gives them an opportunity to comment on the measures. Members also have to set up an *Enquiry Point*; an office providing information and responding to questions

about its country's SPS-measures. Moreover, the WTO has set up a special Committee (the SPS Committee) that serves as a forum for the exchange of information among members on issues related to the implementation of the Agreement. The Committee oversees its implementation, notably by reviewing compliance with the agreement and discussing possible trade impacts of measures. It also cooperates with technical expertise through appropriate technical organizations and has developed procedures and guidelines which help governments implement their obligations under the agreement.

3.3.5 Dispute settlement

The SPS Agreement is designed to prevent unjustifiable measures from being taken. However, sometimes conflicts do occur and dispute settlement then follows the WTO dispute settlement procedure.¹⁸ Since the Agreement states members' right to take whatever measures they find necessary to guarantee human, animal and plant life and health the scientific ground is the only thing that can be challenged by another country in case it finds a measure being unjustified.¹⁹

3.4 The SPS Agreement and Developing Countries

The particular conditions of developing countries were paid special attention in the design of the SPS Agreement. When the Agreement was implemented in 1995, developing countries were allowed to delay the implementation of the

¹⁸ Consult "Understanding the WTO: Settling disputes" at <http://www.wto.org> for a detailed description of dispute settlement.

¹⁹ Between 1995 and 2002, 20 disputes regarding violation of the SPS Agreement were raised under the WTO's dispute settlement system of which two were related to seafood, regarding Australia's restrictions on imports of fresh, chilled or frozen salmon.

Agreement for two years, while least-developed countries were allowed a five year transition period ending on 1 January 2000. This delay did not mean that these countries were exempt from SPS requirements imposed on them by their trading partners, but that they did not have to provide scientific justification for their own SPS measures during that time. Moreover, provisions on technical assistance and special and differential treatment should help developing and least-developed countries to implement and take advantage of the Agreement. Articles 9 and 10 of the Agreement set out desirable actions for industrial countries to take, with respect to their developing country trading partners (Appendix 3). Yet, the wording of the texts is quite vague and the Agreement does not set out any binding obligations for industrial countries to provide assistance to their less favoured trading partners. During the Doha Round-negotiations, developing countries tried to make the rules for technical assistance more binding for industrial countries but so far these efforts have not resulted in any particular improvements.

4 EU Legislation and Food Safety Standards

Over the last ten years food safety has become a priority for both governments and the private sector in Europe. Numerous food scandals have raised concerns about food safety and therefore safety requirements have grown stricter as a response to these scandals. Consumers have become more concerned about the food they consume and for the private sector food safety has become a competitive variable in commercial strategies. Private food safety standards have been developed as additional complements to the national food safety requirements. This chapter will give an account of the food safety requirements and private standards that exporters of fish and fishery products from third countries face when exporting their products to the European Union.

4.1 Legislation regarding the import of fish and fishery products to the EU

There are numerous Regulations and Directives that third countries exporting fish and fishery products to the EU must comply with. *EC Directive 91/492/EEC* and *91/493/EEC* from 1991 constitute the main legal texts for fish and fishery products. These directives make up a legal framework both for production within

EU Member states and production in third countries exporting to the Union, by defining EU standards for handling, processing, storing and transporting fish and fishery products. Directive 91/493/EEC lays down rules regarding the whole chain of production of fishery products from factory vessels, to on-shore plants, to packaging, to storage and transportation. Directive 91/492/EEC is the corresponding legal framework for the production and the placing on the market of live bivalve molluscs. During the 1990s no other major legislation governing the fishery industry entered into force except for the two Directives mentioned above. These Directives were amended twice though; once in 1995 by *Council Directive 95/71/EC* and once in 1997 by *Council Directive 97/79/EC*. However, the 1990s was a decade when a series of food scandals resulted in raised concerns among consumers, which in turn fuelled the development of a new legislation regarding food safety within the EU, marking the beginning of the 21st century. Nevertheless, some legal measures were introduced throughout the 1990s. For further reading about these legal measures and an overview of the EU legislation on food safety with special regard to fish and fishery products between 1995 and 2005, consult table 4.

4.1.1 Competent Authority

The certification of a Competent Authority in a third country is a core component of the EU food safety legislation. This authority is assigned the task of carrying out checks and inspections to ensure that producers and manufacturers comply with EU requirements. An important part of this work is to see to it that processing plants are continuously inspected to ensure that EU requirements are always respected. The definition of a Competent Authority is stated in Directive 91/493/EEC, Article 2:

“A competent authority means the central authority of a Member State competent to carry out veterinary checks or any authority to which it has delegated that competence.”

Occasionally the European Commission also undertakes checks to verify that the Competent Authority accomplishes its duty in a satisfactory manner. In June 2005 the Food and Veterinary Office (FVO) visited Morocco and its Competent Authority, carrying out an inspection to confirm accordance with the EU legislation. The Competent Authority in each country provides the Commission with a list of approved establishments and this is subsequently published in the Official Journal of the European Union. It is the Food and Veterinary Office of the DG Health and Consumer Protection of the Commission that carries out the certification inspections in third countries. The task for the inspection team is set up in Directive 91/493/EEC, Chapter II, Article 3:

“When fixing the import conditions of fishery products referred to in paragraph 1, particular account shall be taken of:

- a) the legislation of the third country;
- b) the organization of the competent authority of the third country and of its inspection services, the powers of such services and the supervision to which they are subject, as well as their facilities for effectively verifying the implementation of their legislation in force;
- c) the actual health condition during the production, storage and dispatch of fishery products intended for the Community

In Morocco the Competent Authority is the Ministry of Maritime Fisheries (Ministère des Pêches Maritimes, MPM) with its main-office in Rabat. The MPM has in turn delegated the task to EACCE (Etablissement Autonome de Contrôle et de Coordination des Exportation), meaning that this is the Moroccan official institution in charge of the actual control of agriculture products intended for exports. The organization operates from its main laboratory in Casablanca and two regional laboratories in Agadir and Tanger. Moroccan producers benefit

from the service EACCE provides without any direct costs. It is however not possible to obtain additional or specific analysis, if needed, even at own expense since the EACCE is not allowed to offer paid services of any kind.²⁰ The EACCE issues export permits to Moroccan producers based on technical inspections. At the border the organization also carries out controls regarding mandatory requirements on international markets.

4.1.2 Imports of fishery products according to List I and List II

Third countries exporting to the EU must have public health legislation and an inspection system in place equivalent to those in the EU. Non-EU countries are then classified into two categories; List I and List II countries in accordance with Annex 1 of *Commission Decision 2005/501/EC* for fishery products from 2005.²¹ Countries belonging to List I are “harmonized” countries, which means that their legislation requirements are at least equivalent to the legal framework in the EU governing domestic products (i.e. Directive 91/492/EEC and Directive 91/493/EEC). List I countries have also had their competent authority examined and approved by an inspection team from the EU. When a country has been approved as a List I country, specific import conditions should then be signed together with an official recognition of the Competent Authority. At this point the required health certificate and a list of approved establishments should also be created.²²

The second category, List II countries, consists of “pre-listed” countries. These countries have sanitary requirements and control systems more or less equivalent to the EU, but are on this list either because the FVO has not yet carried out an

²⁰ Omar and Lahcen (2004), p. 18

²¹ See Appendix 4 for the wording of the Decision

²² Directive 91/493/EEC, Article 11

inspection in the country or because the FVO has judged it necessary for improvements to be carried out at some crucial points before the country can be promoted from List II to List I. Imports from these countries may also be subject to additional national requirements. Moreover, products from List II countries cannot be marketed in other Member states but the importing country. Countries mentioned in List I and II grant approval numbers to fish companies (fishing/freezer vessels, processing companies etc) certifying that the companies stick to required hygiene standards.²³ Countries that are not mentioned in List I and List II cannot export any fish or fishery products to the EU.

4.1.3 Veterinary checks at the point of entry

Each consignment has to be controlled at the first point of entry to the European market. At present there are two main Directives governing veterinary checks. First, *Council Directive 97/78/EC* from 1997 lays down the *principles* governing the organisation of veterinary checks on products entering the Community from third countries. Then the *procedures* for veterinary checks are laid down in a regulation that entered into force in 2004; *Regulation 136/2004/ECC* stating that import controls shall be carried out in three consecutive steps:²⁴ 1) *Documentary check*: The exporting country's health certificate is examined.²⁵ Each shipment must be accompanied by a certificate in accordance with *Decision 2001/67/EC*.²⁶ 2) *Identity check*: A visual inspection of the consignment takes place to confirm the consistency between documents and products. At this stage a check to verify the presence of required sanitary marks such as country of origin and approval

²³ Directive 91/493/EEC, Article 11

²⁴ Regulation 136/2004/ECC, Article 1, Annex 1 and 2

²⁵ Directive 97/78/EC, Article 4(3) in accordance with Annex 1

²⁶ Decision 2001/67/EC, Annex 1

number is also carried through.²⁷ 3) *Physical check*: Here the product itself is subject to examination to assure that it meets required health standards.²⁸

Products originating from List I countries are all subject to the documentary, identity and physical check at the first point of entry. If the product is not subject to any remarks it can be marketed in all countries in the EU and considered as an EU-product.²⁹ If a problem appears during the hygiene control, the whole shipment is rejected.

In Council Directive 97/78/EC it is stated that the Commission may determine that physical checks, in the light of previous checks, are to be less frequent under certain conditions. These conditions are laid down in Article 10(1). It is only the countries mentioned in List I that can be subject to less frequent physical checks.

4.2 The European General Food Law

As consumer confidence had been severely shaken by numerous food-related health crises, the EU in the late 1990s identified food safety as one of its top priorities. It was important to restore consumer confidence regarding the ability of public authorities to ensure that food sold on the European market was safe to eat. In January 2000, the European Commission therefore presented a White Paper on Food Safety that contained plans for a new proactive food policy with a modernized legislation. The most important priorities of the White Paper were to create a European Food Safety Authority (EFSA) and to implement a “farm to table” approach in the food legislation. The White Paper was followed by *The General Principles of Food Law* that entered into force in February 2002 under

²⁷ Council Directive 97/78/EC, Article 4(4)(a)

²⁸ Council Directive 97/78/EC, Article 4(4)(b)

²⁹ Vrignaud (2004), p. 11

Regulation EC/178/2002. Under this law, it became compulsory from 1 January 2005 for food and feed businesses to guarantee that all foodstuffs, animal feed and feed ingredients are traceable right through the food chain.³⁰ With Regulation EC/178/2002 the European Food Safety Authority was established. EFSA is now the keystone in the risk assessment of the EU regarding food and feed safety, as it provides independent scientific advice and communication on existing and emerging risks to the national authorities in the Member countries. The FVO inspects the compliance with the General Food Law in the EU Member states and in third countries exporting to the EU. The FVO can inspect individual food production plants, but its main task is to check that EU governments and governments in third countries exporting to the union have the necessary equipment for checking that their own food producers are sticking to the safety standards. The legal framework for the Rapid Alert System for Food and Feed (RASFF) is also part of Regulation EC/178/2002. The purpose of the RASFF is to provide the control authorities with an effective tool for exchange of information on measures to be taken to ensure food safety. A system for rapid alert already exists in the frame work of *Council Directive 92/59/EEC* from 1992 on general product safety. The scope of the existing system includes food and industrial products but *not* feed. Recent food crises have however demonstrated the need to set up an improved and broadened rapid alert system covering food *and* feed. The RASFF is to be managed by the Commission and the network includes the Member states, the Commission and the Authority.³¹

In Article 11 of Regulation EC/178/2002 the following is stated regarding importation of food and feed to the EU:

“Food and feed imported into the Community for placing on the market within the Community shall comply with the relevant requirements of food law or conditions

³⁰ European Commission: EU guides – Food Safety in the European Union
<http://www.eubusiness.com/guides/food>

³¹ Regulation 178/2002, Article 1(59)

recognised by the Community to be at least equivalent thereto or, where a specific agreement exists between the Community and the exporting country, with requirements contained therein.”

4.2.1 The “Hygiene package”

Each product imported to the EU must also be compatible with *Directive 2002/99/EC*, which lays down animal health rules governing the production, processing, distribution and introduction of products of animal origin for human consumption. This Directive entered into force 1 January 2005 and is part of the EU’s new “*Food hygiene package*”. The European Commission adopted the hygiene package in April 2004. It aims to merge, harmonize and simplify very detailed and complex hygiene requirements currently scattered over 17 directives. These will be replaced on 1 January 2006 when the new hygiene package enters into force. The overall aim of the hygiene package is to create a single hygiene regime covering food and feed operators in all sectors, together with effective instruments to manage food safety and any possible food crises, throughout the food chain. Food producers will bear primary responsibility for the safety of food through the use of a “Hazard Analysis and Critical Control Points” system (HACCP). (See paragraph 4.3.2 for further reading).

The hygiene package consists of five different Regulations: *Regulation 852/2004/EC* establishes general requirements for primary production, including HACCP. *Regulation 853/2004/EC* lays down specific hygiene rules for live bivalve molluscs, fishery and processed products. *Regulation 854/2004/EC* establishes specific rules for the organization of official controls on products of animal origin intended for human consumption. The new hygiene rules will enter into force on 1 January 2006 except for the previously mentioned Council Directive 2002/99/EC, which was already introduced on 1 January 2005. Once

the new hygiene rules have entered into force, the fifth Regulation in the hygiene package, *Regulation 2004/41/EC* will repeal the 17 old directives that up till now have controlled hygiene requirements in the EU. Regulation 852/2004/EC and 853/2004/EC will replace Directive 91/492/EEC and 91/493/EEC on the health conditions for the production and placing on the market of live bivalve molluscs and fishery products.

On 1 January 2006 *Regulation 882/2004/EC*, called *the Food and Feed Controls Regulation* enters into force. With this Regulation current authorization to imports from List II countries expires on 31 December, 2005.

4.2.2 Traceability

From 1 January 2005 under Regulation 178/2002, general traceability also became mandatory throughout the EU food system. The EU definition of traceability is stated in Article 3:16 of the previously mentioned Regulation:

“Traceability means the ability to trace and follow a food, feed, food-producing animal or substance intended to be, or expected to be incorporated into a food or feed, through all stages of production, processing and distribution”

All food and feed products distributed on the EU market shall be adequately labelled to facilitate the identification and traceability of products. The new legislation requires that it shall be possible to trace a product throughout the whole production chain from catch to consumption.

4.3 Hygiene Standards

Over the years the number and the complexity of standards have increased throughout the whole world including both public regulations and legislation as well as private standards. At present there are profound differences regarding national food safety management among EU member countries. The United Kingdom (UK) has placed the responsibility entirely on the private sector, while other EU countries such as Germany and the Scandinavian countries rely on public monitoring and control procedures. As previously mentioned in this chapter, the HACCP-system will become compulsory for all producers within the Union and for all third parties exporting to the EU when Regulation 852/2004/EC enters into force on 1 January 2006. The HACCP-system will then become the most important standard within the Union.

Table 1. Most common international food safety regulations and legislation.

Name	Body	System	Obligation for parties
Codex Alimentarius	FAO/WHO	HACCP	No
SPS Agreement	WTO	No technical codex	Yes, for WTO-members
EU legislation	EU	HACCP-based codex	Yes

Source: Changing European Public and Private Food Safety and Quality Requirements, Challenges for Developing Country Fresh Produce and Fish Export.

4.3.1 HACCP

The HACCP-system (Hazard Analysis Critical Control Point) was first developed by the Pillsbury Company in the 1960s as a means of assuring the safety of food produced for the U.S. space program. The National Aeronautics and Space Administration (NASA), that at the time was preparing the first manned space missions, wanted a “zero defect” program to guarantee safety in

the food astronauts would consume in space.³² The HACCP-system and guidelines for its application were later on defined by the Codex Alimentarius Commission in the Codex Alimentarius Code of Practice. This Commission implements the Joint Food and Agriculture Organization (FAO) of the United Nations and World Health Organization (WHO) Food Standards Program.³³

The purpose of HACCP is to identify the critical points throughout the production process. At these critical points hygiene controls should be carried out to guarantee product safety all the way through the production chain to the consumer's plate. Thus, at every new step the product takes towards final consumption the HACCP-system shall be applied and the production process evaluated in accordance with the seven steps described in Table 2.

These critical control points can be determined at all stages in the production chain from catch to processing industry. Human handling always involves a certain risk. Moreover, the period from catch to freezing is also critical since a rise in temperature can cause bacteria growth. It is also of crucial importance for food safety that refrigeration and freezing facilities always keep the right temperature. The workers' personal hygiene as well as the standard of equipment and factories are also vital components that need to be in perfect condition to assure that a food product remains safe. In addition there are "codes of good practice" designed to suit each country and its specific prerequisites. These "codes of good practice" shall constitute a guidance regarding how the general hygiene standards should be followed and how the guidelines for the HACCP should be applied.

³² Hulebak and Schlosser, p. 8

³³ www.haccpforexcellence.com

Table 2. The Seven Steps of Hazard Analysis Critical Control Points

1. *Assessing Hazard* – Prepare a list of steps in the process where significant biological, chemical and physical hazards may occur and describe the preventative measures to eliminate or reduce the hazard.
2. *Identifying CCPs* – Identify the Critical Control Points (CCPs) in the process.
3. *Setting up critical limits for CCPs* – Establish and implement critical limits for preventative measures associated with each CCP.
4. *Monitoring CCPs* – Establish and implement CCP monitoring requirements and procedures for using the results of monitoring to adjust and maintain control. Monitoring is how an operator checks to see if the process is under control.
5. *Taking corrective action* – Establish and implement corrective actions that should be used if a deviation from an established critical limit occurs. Corrective action tells an operator what to do if something goes wrong.
6. *Verifying that the system is working* – Establish and implement procedures to verify that HACCP system is working correctly.
7. *Setting up record keeping system* – Establish and implement record keeping procedures that document the HACCP system. The company keeps records so it can prove the product was produced in a safe manner.

The way from catch to processing industry is made up of several steps and can be different depending on the nature of the catch, the equipment and the duration of transportation. In Annex 7, Figure 1 illustrates an example of how a product travels through the production chain from catch to processing industry. Figure 2 then illustrates different stages within the processing industry itself.

Regarding the EU legislation it is important to emphasize that even though the HACCP-system has not been explicitly required before the entering into force of Regulation 852/2004/EC from 1 January 2006, HACCP has still been implicitly

required through *Commission Decision 94/356/EEC* that lays down the legal framework for own health checks on fishery products.

4.3.2 Private standards within the EU

Over the years, private companies in Europe have taken additional precautions and developed their own private hygiene standards to prevent food safety scandals. Compared to official standards, private standards are often stricter since retailers in particular are often held directly responsible by their customers for the safety of their food and a food scandal can be very bad for business. Important to stress within this context is also that private standards are not restricted by the SPS Agreement and thus cannot be challenged by another WTO member country.

In 1998, UK retailers cooperating in the British Retail Consortium (BRC) took the initiative and formulated a common standard to inspect food suppliers.³⁴ To coordinate supply chain activities and control food safety, several supermarkets and importers all over the world now apply the BRC-standards together with other standards such as the EUREP-GAP. EUREP-GAP started in 1997 as an initiative of retailers belonging to the Euro-Retailer Produce Working Group (EUREP). It has subsequently evolved into an equal partnership of agricultural producers and their retail customers. EUREP-GAP members include retailers, producers, farmers and associate members from the input and service side of agriculture.³⁵ For the fish sector, retailers have had fewer private guidelines in comparison with for example the vegetable and fruit sector, but the British retailers are now developing a EUREP-GAP standard especially for fish. The EUREP-GAP certificate is expected to dominate the market in the near future for

³⁴ Willems et al (2005), p. 7.

³⁵ <http://www.eurep.org>

all producers supplying fresh produce, including fish products, to the major European retailers. In October 2004, a EUREP-GAP standard for aquaculture was introduced.³⁶ EUREP-GAP has also constructed a specific standard for salmon. The standard covers the value chain for salmon with smolt production in freshwater, on-growing in seawater, harvesting and transport.³⁷ When an introduction of a specific EUREP-GAP standard for the whole production chain of fresh produced seafood from catch to consumption will take place is not yet determined. However, when such a standard becomes a reality, there is a risk that small-scale producers in developing countries will face difficulties getting certified according to the EUREP-GAP standard. The cost of certification is high, because to obtain the certificate a producer must be examined by an accredited third party and in many developing countries there is a lack of certified parties, which is why producers are forced to fly expensive auditors over from Europe.³⁸

4.4 The EU and the SPS-agreement

Every Member State in the EU has the right to take additional measures to protect human population, animal health and flora, as long as the measures are based on scientific grounds as stated in the SPS Agreement. In the DG Trade a team has been established to work explicitly with SPS-related issues. The work of this group is built on three pillars: compatibility of EU legislation with WTO rules, EU-export related SPS-problems and trade related technical assistance to developing countries. To ensure that EU legislation in the SPS-sector meets with the Community's international obligations, in particular the SPS Agreement, the team follows and assists the development of this legislation. The team also provides advice, in cooperation with the DG Health and Consumer Protection

³⁶ Willems et al (2005), p. 1

³⁷ www.eurep.org

³⁸ Willems et al (2005), p. 20

(SANCO), on the technical aspects of any cases brought by or against the Community in the WTO.³⁹

A special budget has been established to provide trade-related technical assistance to developing countries. The budget aims to provide specific targeted technical assistance in the area of food safety, human, animal and plant health. This budget was first created in 2002 and is a response to Article 9 of the SPS Agreement. In 2004 the budget was € 1.000.000 divided between three sections:⁴⁰

1. To assist experts from Developing Countries to attend meetings of the three organizations officially recognized in the SPS Agreement for standard-setting, i.e the Office International des Epizooties (OIE), the International Plant Protection Convention (IPPC) and Codex Alimentarius in the field of animal health, plant health and food safety and quality respectively.
2. To send technical experts from Member States to Developing Countries to provide on-the-spot advice on action needed to satisfy EU import sanitary requirements.
3. To bring staff from Developing Countries to training facilities within the EU for centralized training on specific SPS topics.

³⁹ <http://europa.eu.int/comm/trade>

⁴⁰ <http://europa.eu.int/comm/trade>

Table 3. Overview of the Evolution of EU Legislation on Food Safety with special regard to Fish and Fishery products 1990-2005

<p><u>Introduced in 1991</u> <i>Directive 91/492/EEC, Directive 91/493/EEC</i> These two Directives define EU-standards for handling, processing, storing and transporting fish and fishery products including bivalve molluscs.</p> <p><u>Introduced in 1992</u> <i>Council Directive 92/48/ECC</i> Laying down the minimum hygiene rules applicable to fishery products caught on board certain vessels in accordance with Article 3(1)(a)(i) of <i>Directive 91/493/EEC</i></p> <p><u>Introduced in 1993</u> <i>Council Decision 93/140/EEC</i> Laying down the detailed rules relating to the visual inspections for the purpose of detecting parasites in fishery products.</p> <p><u>Introduced in 1994</u> <i>Commission Decision 94/356/EEC</i> Laying down detailed rules for the application of <i>Council Directive 91/493/EEC</i> as regards own health checks on fishery products.</p> <p><u>Introduced in 1995</u> <i>Council Directive 95/71/EEC</i> amending <i>Council Directive 91/493/EEC</i> Fixing sanitary rules governing the production and placing on the market of fishery products.</p> <p><i>Commission Decision 95/149/EC</i> Fixing the total volatile basic nitrogen limit values for certain categories of fishery products and specifying the analysis methods to be used.</p> <p><u>Introduced in 1997</u> <i>Council Directive 97/78/EC</i> Laying down the principles governing the organisation of veterinary checks on products entering the Community from third countries</p> <p><i>Council Directive 97/79/EC</i> amending <i>Council Directive 91/493/EEC</i> The amendments regard the organisation of veterinary checks on products entering the Community from third countries.</p>
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Introduced in 2000

White Paper on Food Safety, Brussels 12 January 2000.

The White Paper contains plans for a new proactive food policy. Most importantly it suggests the creation of EFSA and the implementation of a “farm to table” approach.

Introduced in 2001

Decision 2001/67/EC

States that a Health Certificate must accompany each shipment entering the EU.

Commission Regulation No 466/2001

Setting maximum levels for certain contaminants in foodstuff.

Introduced in 2002

Regulation EC/178/2002: The General Principles of Food Law.

With this Regulation EFSA was established, as well as the FVO and the RASFF.

Introduced in 2004

Regulation 136/2004/ECC

This Regulation lays down procedures for veterinary checks carried out at the first point of entry to the European market.

Introduced in 2005

Directive 2002/99/EC

Defined rules governing animal health as well as the production, processing, distribution and introduction of products of animal origin for human consumption are laid down in this Directive. With this Directive the EU’s “Food Hygiene Package” entered into force.

Commission Decision 2005/501/EC.

Drawing up the list of third countries from which the import of fishery products is authorised for human consumption.

The European Hygiene Package

The following Regulations together with Directive 2002/99/EC will from 2006 constitute the legal framework for the importation of fish and fishery products. Together these Regulations form the European “Hygiene Package”

Regulation 852/2004/EC

Establishes general requirements for primary production, including HACCP.

Regulation 853/2004/EC

Lays down specific hygiene rules for live bivalve molluscs, fishery and processed products.

Regulation 854/2004/EC

Establishes specific rules for the organization of official checks on products of animal origin intended for human consumption.

Regulation 882/2004/EC: The Food and Feed Control Regulation

Current authorization to import from List 2 countries expires 31 December 2005.

Regulation 2004/41/EC

This regulation will repeal the 17 old directives that up till now have controlled hygiene requirements in the EU.

5 Governmental approach towards food safety standards

In order for compliance to function, it is necessary that the institutional framework is in place; both with regard to the Competent Authority and to the policy work affecting the sector. In Morocco, it is the Ministry of Maritime Fisheries that is assigned the task of drawing up policies and complementing strategies for the fisheries sector in accordance with governmental directives. Moreover, the National Fisheries Office (Office National des Pêches, ONP) is also engaged in policy and strategic issues. This chapter deals with the governmental approach towards food safety standards and the aim is to detect what strategic approach the Moroccan fisheries administration has adopted in the light of increasing food safety standards. The strategic choice between *exit*, *voice* and *compliance* as well as a *proactive* or *reactive* approach towards compliance are crucial determinants of how the seafood export sector has been affected by standards.

5.1 Governmental development strategies

The Moroccan export sector has a tradition of technical regulations, which is important to bear in mind regarding the country's compliance with SPS requirements. Since the 1940s technical approval after inspection has been mandatory for Moroccan exporters of fresh products. Moreover, during the first

30 years after independence (1956-86) a public monopoly, Office de Commercialisation des Exportations (OCE) governed all exports of food products. The OCE educated farmers and exporters on the subject of quality and modern marketing, and even though the organization did not always work very efficiently its effort contributed to a general awareness of the importance of quality issues.⁴¹ Today, the MPM is continuing on this taken path and has developed a set of strategies aiming at developing the Moroccan seafood sector.

Table 4. Development strategies for the Moroccan seafood sector

Quality management	Diversification of products and markets	Provision management
<ul style="list-style-type: none"> ▪ Implementation of self-control systems based on the concept of HACCP. ▪ Development of quality assuring programmes in all processing industry units. ▪ Creation of technical centres that can provide assistance and advice to processing industry professionals. ▪ Normalization and regulation of fabrication processes, firm management protocols and conditions for the placing of products on the market. 	<ul style="list-style-type: none"> ▪ Research and development of new products ▪ Encouragement of investments filling the gaps regarding high value products ▪ Creation of project banks ▪ Creation of the quality label <i>Label Maroc</i>. ▪ Marketing and promotion of products 	<ul style="list-style-type: none"> ▪ Modernization of the coastal fishing fleet. ▪ Control of raw material and preservation of the quality of catches on board. ▪ Regulation of efforts and implementation of adjustment plans for different types of fisheries. ▪ Development of vertical integration within the seafood supply chain.

Source: MPM/DIP (2002)

⁴¹ Omar and Lahcen (2005), p. 16 f.

Even though the Ministry has no explicit strategy for compliance with international food safety standards, this ambition is however tacitly understood. A specific strategy has been developed for quality management, where all the steps implicitly correspond to the strategy of compliance. The two other strategies also contain steps that directly or indirectly affect quality. All together it seems like the quality aspect is a keystone that leavens the Ministry's efforts to develop the fishery sector in Morocco

In-depth interviews with administrative staff at the MPM, its sub-division DIP (Direction des Industries de la Pêche), and the ONP give a unanimous picture of the *compliance* strategy as the one opted for by the Moroccan public administration. Moreover, the importance of participating in international forums where food safety standards are set and regulations regarding such standards are determined is also a priority of the MPM, showing that *voice* is also a strategic approach taken by the Moroccan public administration.

5.2 HACCP in the Moroccan seafood sector

Modalities for own-checks were stated as early on as in Directives 91/493/EEC and 94/356/EEC. Even though HACCP will not become mandatory until 1 January 2006, the modalities of these Directives were based upon the HACCP principles. Since HACCP was adopted and developed by the Codex Alimentarius Commission in the early 1990s, these principles have come to constitute the base for Morocco's self-inspection schemes. Elaborated in cooperation with the Ministry of Maritime Fisheries and the Ministry of Agriculture, four generic HACCP manuals on fresh fish, frozen fish, canned fish and semi-preserved fish (anchovies) were published in February 1996.⁴² These guides provided

⁴² Infofish (1996)

comprehensive information about the HACCP concept and step-by-step guidance to implementation of a secure HACCP-based self-control system within the processing facilities.

In 1998 the Ministry of Agriculture initiated cooperation with Le Fond de Développement du Secteur Privé (PFDSP) de l'Agence Canadienne de Développement International (ACDI), regarding a project for quality improvement of Moroccan agricultural products. The program was given the name Programme National de Gestion de la Qualité (PGQ). Before introducing the program to all food sectors in Morocco, the fishery industry, notably the processing industry in the region of Agadir, is to serve as a pilot project. The pilot project involves education for the Moroccan administrative staff on the subject of quality management and PGQ. Information is provided regarding tools for introducing the program so that administrative staff effectively will be able accompany firms within the processing industry in the process of establishing a control system for improved quality in accordance with the PGQ. So far, 25 firms within the processing industry in the region of Agadir have been certified according to the PGQ program. The PGQ certificate is based on the seven steps of the HACCP-system.⁴³

5.3 PAVPP

In 1996 Morocco initiated cooperation with the World Bank aiming at improving the value of catches through increased quality. The programme was named *Projet d'Appui à la Valorisation des Produits de la Pêche* (PAVPP) and was implemented in 1997. It involved two main projects; 1) Reformation of institutions, and 2) Investments throughout the production chain regarding the

⁴³ <http://www.fao.org/DOCREP/MEETING/004/AB442F.HTM>

standard of vessels and small traditional boats, landing conditions and conditions in the processing industry. However, the project was never completed mainly because of responsible ministers and administrative staff leaving their positions for unknown reasons. The project has never been evaluated so the specific results of the project are hard to detect. Yet, a fishing centre for small traditional boats in Agadir is a result of this World Bank project as well as a modern market for the trading of seafood.

5.4 Modernization of the fishing fleet

Over the last decade the modernization of the fleet has gained importance on the MPM agenda. Considering the evolution of the legal framework governing fish and fishery products within the EU and overall increased awareness of food safety, it is reasonable to believe that this development emphasized the need for a modernization. An ambitious modernization plan was introduced in March 1997, consisting of direct subsidies of 15-20 percent of modernization investments. Soon reality showed that the subsidies were not always used for the intended purpose, for example there were cases when subsidies had been used to finance weddings instead of modernizing equipment. The project was therefore abandoned a year later in March 1998 but reappeared in 2001 in a modified shape.

This time, modernization of the fleet was to take place through credits instead of subsidies. The problem was however that the fishing equipment alone was not sufficient as security for a fisherman to get bank credits, so other assets (mainly real estate) had to be used as mortgage. For fishermen without other assets this was an insurmountable obstacle and for others the idea of putting the whole family's economic security at stake was never an option. The solution to the

problem was the establishment of a guarantee fund that could enable fishermen to get access to credits with favourable conditions, thus separating personal assets from means of production. However, the programme failed once again due to the difficulties of finding banks willing to contribute to the fund. Nevertheless the idea of a guarantee fund has survived and the work of establishing such a fund is now the responsibility of the ONP. The ONP estimates the necessary contributions to the fund to reach a minimum of 200 million DHs, but so far the fund only contains the ONP's own contribution of 30 million DHs.

To sum up, the ambition of modernizing the fishing fleet has been a clear priority of the MPM throughout the past decade. Due to continuous problems of financing and the lack of continuity within the administrative management the goals set up are still far from being reached. Since a chain is never stronger than its weakest link, it is of crucial importance for the fishing to be modernized in order to secure product safety in all subsequent steps of the supply chain. The introduction of the new EU legislation including the "farm to fork" approach clearly stresses the severe need of upgrading the handling conditions on vessels and traditional boats. If these conditions are not improved the Moroccan seafood sector will face a potential problem with regard to EU exports but the consequences are yet to be seen.

6 Assessing the impact of standards on Moroccan seafood exports

Assessing the impact of food safety standards on international trade is not an easy matter. Jaffee and Henson identify five major obstacles to an accurate empirical analysis of such standards.⁴⁴ First, what measures and how they are enforced vary a lot among countries and industries. Whether their enforcement deters or encourages exports depend on what adjustments, modest or major, need to be made. This reality with variations among countries and industries makes it difficult to constitute an aggregate variable of the enforcement of standards. Second, there may be secondary effects from standards. Shifts in sourcing, production of complementary and competitive goods and the spread of standards to other countries are some examples. Third, shifts in trade with agro-food products can be caused by other factors than food safety standards; notably economic and technical factors. Fourth, it is extremely difficult to define what trade flows would have been like without a specific measure. Suppose an incident occurred: Would retailers and consumers change suppliers? If yes, to which ones? And would demand decline as a consequence in favour of a substitute good? If so, to what extent? Finally, many food safety standards will also affect domestic suppliers through shifts in relative competitiveness and market shares of different actors.

⁴⁴ Jaffee and Henson (2005), p. 100

6.1 Possible impacts of food safety standards on Moroccan seafood exports

Considering that Morocco greatly depend on industrial export markets it is logical to assume that the intensification of food safety standards in the past decade have not left the Moroccan seafood export sector unaffected. Since the country is relatively poor one would expect it to face problems with compliance, thereby considering an exit strategy of re-orientation of exports towards markets with lower standards. If there are no alternative markets for Moroccan seafood exports, it is possible that total exports will decline. Nevertheless, Morocco's dependence on industrial markets with high food safety requirements could also motivate it to make efforts aimed at complying with standards, either by adopting a proactive or reactive approach. This in turn would then be reflected in maintained or even increased export volumes. Under the assumption that unit value (price/tonne) reflects price, and that price in turn is an indicator of quality, compliance would not only be reflected by export volumes, but also by increases in unit values.⁴⁵ However, quality is only one out of many determinants of price hence unit values have to be interpreted with caution and always in the light of the traditional market forces of supply and demand.

6.2 The impact of food safety standards on Moroccan seafood exports

The basis for this section consists of export statistics from the MPM and in-depth interviews with seafood exporters from different sub-sectors. With regard to statistics, export volumes and unit values have been studied. In combination with

⁴⁵ See Hine et al. (1999), section 4.2 pp. 73-80 for an extended discussion on unit value as a quality indicator.

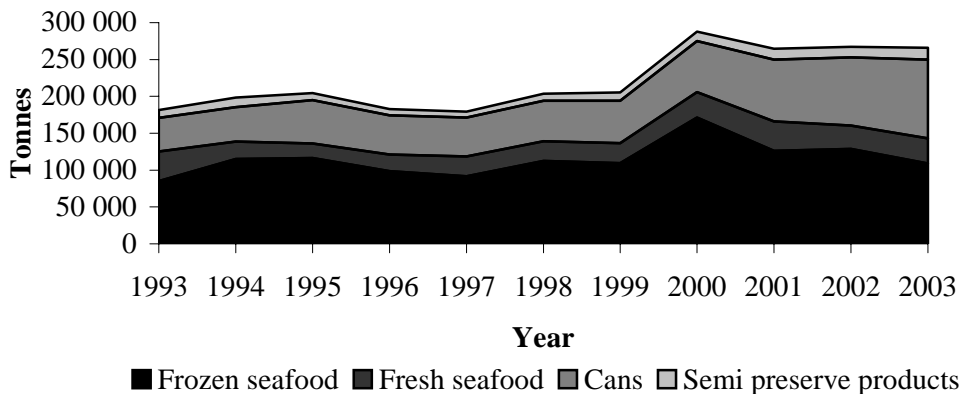
overall sector information from the MPM/DIP and exporters' opinions a picture of a modern and competitive processing industry emerges.

6.2.1 Development of Moroccan seafood exports

Difficulties complying with international food safety standards mainly affect exports in two ways: First, exports may decline as a result of products not corresponding to ruling standards on existing export markets. Second, exports can be maintained or even increased if alternative markets exist for the products with lower standards not posing compliance problems.

Considering Figure 3, the totality of exports remained more or less constant during the 1990s even though declining somewhat between 1995 and 1997. However, it has to be borne in mind that Morocco had an on-going Fishery Agreement with the EU until 1999. Between 1999 and 2000 exports rose but settled at a slightly lower but still much higher level compared to exports in the 1990s. Cans and frozen products increased the most while fresh and semi preserve products showed more moderate changes.

Figure 3. Development of Moroccan seafood exports 1993-2003



Source: MPM

The decline in exports after 2000 could indeed be the result of increasing food safety standards. However, according to the MPM/DIP and the exporters the reason for the decline is to be found in an over exploitation of marine resources. This has led to critical populations of certain species, especially cephalopods, which are now subject to biological rest in order to regain sustainable populations.

The fact that the total export volume increased does not indicate that food safety standards affected Moroccan exports negatively. Still, there is a possibility that exports shifted away from markets with higher standards towards less demanding markets, making it is necessary to also look at the geographical distribution of exports.

6.2.2 Geographical distribution

It is plausible that problems with compliance shift exports away from high-demand industrial markets such as the EU, the US and Japan. Morocco's maintained or increased exports to these markets indicate a gain in competitive advantage over non-complying seafood exporting nations. Table 5 shows the shares of export volumes to the different export markets. From this table it can be observed that with respect to volume; EU, Asia (Japan) and Africa constitute the major export markets, accounting for a stable share of around 90 percent of total exports during the 1990s. Yet, in 2001 exports to Japan declined. At the same time, the shares to African markets increased while EU shares remained constant. Considering shares to other geographical areas, shares to the Middle East seem to be increasing but are still very low in comparison to the EU, Japan and Africa. So are also export shares to North America (NA), South America (SA) and Oceania. With regard to exports to Europe outside the EU, these show a great increase between 2002 and 2003 but considering the low and fluctuating export shares to

this region before 2003, it is yet too early to say whether this is the beginning of a new trend of increased exports or an isolated case.

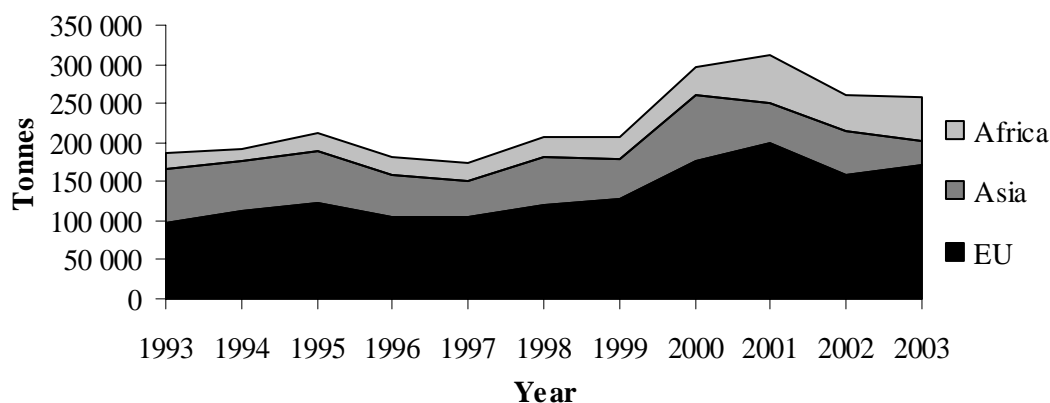
Table 5. Development of export shares as percentage of total export volume 1993-2003

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
EU	50	55	52	53	53	53	57	55	55	53	52
Asia	35	31	28	28	23	27	23	26	14	19	9
Africa	11	7	10	11	13	11	12	11	17	15	17
Middle East	2	3	3	3	4	4	3	3	6	7	7
Other Europe	0	1	3	1	4	3	2	1	6	3	10
NA, SA & Oceania	3	3	4	4	3	3	3	3	3	3	5
Total	100	100	100	100	100	100	100	100	100	100	100

Source: MPM

The study of export shares is however quite futile if not highlighted with real export volumes. Figure 4 therefore shows the development of export volumes to the three major markets during the actual time period. Considering their large aggregated share of total exports, they show the same evolution as do total exports during the 1990s. The difference comes towards the end of the period when the aggregated export share decline from 92 to 78 percent between 2001 and 2003.

Figure 4. Development of exports to major export markets 1993-2003



Source: MPM

Taken together, total export volumes and the geographical distribution of export do not give any indication of a negative impact of food safety standards on Moroccan seafood exports. On the contrary it seems like the country has adapted well to standards and thereby gained a competitive advantage over non-complying countries.

6.2.3 Export performance at sector level

Different sectors may be affected differently by standards and their ability to comply with standards may vary because of differences in production methods, equipment, manual labour, FDI etc. Before being able to make any definitive conclusion about the impact of standards being a barrier or a catalyst to exports, it is thus necessary to break-down the statistics into sector level.

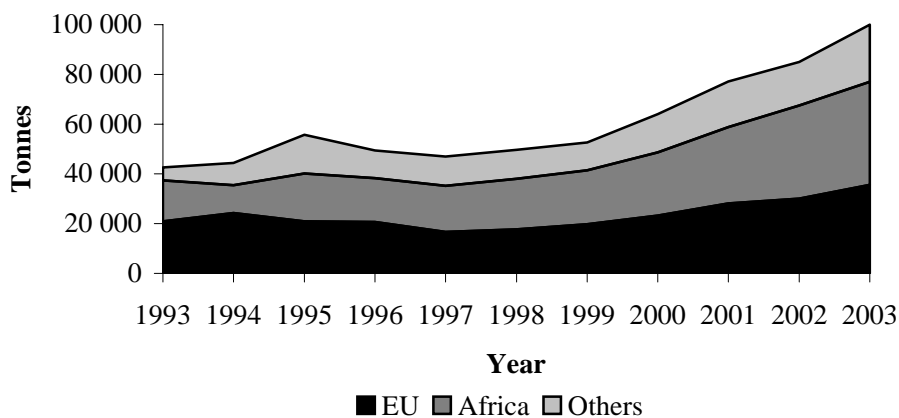
6.2.3.1 *Exports of canned fish*

Canned sardines are by far the most important product group within this sector and cans of tuna, mackerel and other species play an insignificant role in comparison. About 80 percent of the products are exported while the remaining 20 percent are consumed locally. Between 1993 and 2003 exports of canned sardines more than doubled.

Processing within the canning industry comprises many steps and a great deal of manual handling. Because of the many critical points in the production chain, there is a possibility that compliance has been difficult and exports are therefore redirected to other markets with lower standards. As can be seen from Figure 5, the EU and Africa are the main export markets for canned sardines and the development of exports does not indicate any re-direction of trade. Exports to African markets have experienced a considerable increase since the end of the

1990s and Africa has now surpassed the EU in terms of export volume. This could be the result of strict food safety requirements on the EU market re-directing exports, but this is however contradicted by the fact that exports to the EU also have increased, even though to a lesser extent.

Figure 5. Exports of canned sardines by volume



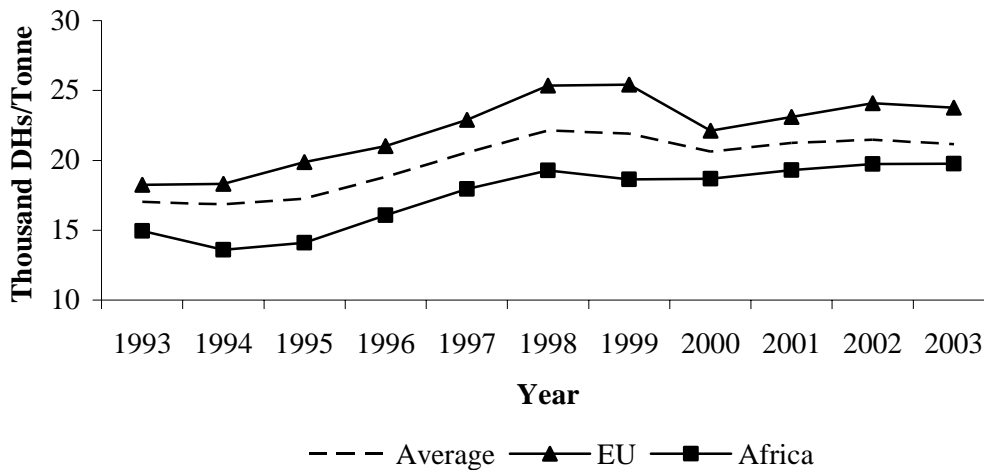
Source: MPM

The DIP instead explains the evolution of exports by increased demand on African markets while the demand in Europe remains relatively constant. It is also important to point out that Moroccan exporters find the African markets being more reliable nowadays due to the increase of European actors on these markets. Still, one of the exporters interviewed had more or less abandoned EU markets for the African ones due to food safety standards. It is important though to emphasize that this exporter still considered European food safety standards as reasonable and in addition he believed that standards have a positive impact on the modernization of an obsolete industry. His preference for the African markets was however based on the fact that African markets have become more reliable to trade with and therefore a natural choice from a geographical perspective.

As far as unit values are concerned, the period 1993 to 2003 shows a slight but constant increase indicating an improvement of quality (Figure 6). Price is

generally higher on the EU market compared to the African markets. A possible explanation for this is that cans exported to the EU are of higher quality than cans destined for African markets, due to the fact that with increased wealth consumers tend to demand higher quality products.

Figure 6. Development of unit value for canned sardine exports 1993-2003



Source: MPM

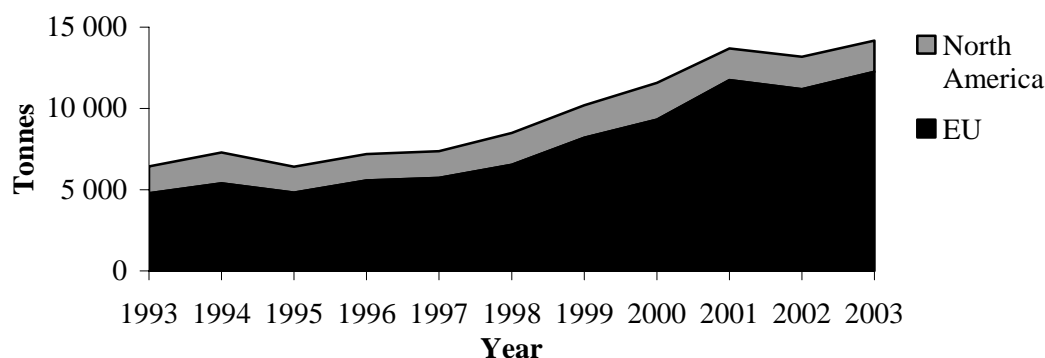
As it turns out, acquiring and implementing up to date food processing technologies have always been a high priority for the canning industry. By adopting such a strategy, the sector has imposed its competitiveness and is now able to produce products meeting both international quality standards and customer requirements. The sector also puts a lot of effort into developing new products and promoting new packaging. It also aims at diversifying its activities towards processing of new species such as herring, cephalopods and shellfish to be ahead of its competition. This strategy seems to be paying off well and Morocco has thus been able to keep its position as the world’s number one exporter of canned sardines.⁴⁶

⁴⁶ It is also within this sector that the MPM has launched the quality label *Label Maroc* and up to date, twelve products and seven out of around forty can exporting firms are entitled to this label. The sector however considers this label superfluous and the interest becoming certified under this label is weak. The exporters interviewed all share the opinion that *Label Maroc* has

6.2.3.2 Exports of semi-preserve products

Mainly made up by the processing of anchovies, the semi-preservation industry is entirely export-oriented. Since preparation of the final product requires a lot of precise manual labour, it is exposed to a number of risks associated with human handling. Like for the canning industry, a possible reaction to increased food safety standards could therefore be a re-direction of exports. Yet this sector, just like the canning industry, has experienced a major increase in export volume over the past decade and shows no signs of being affected by sanitary and phytosanitary standards (Figure 7). Exports to the major export market EU have more than doubled while exports to North America (USA) have been quite constant, a market where Morocco accounts for 50 percent of imports of semi-preserved anchovies.

Figure 7. Exports of semi-preserved anchovies products 1993-2003



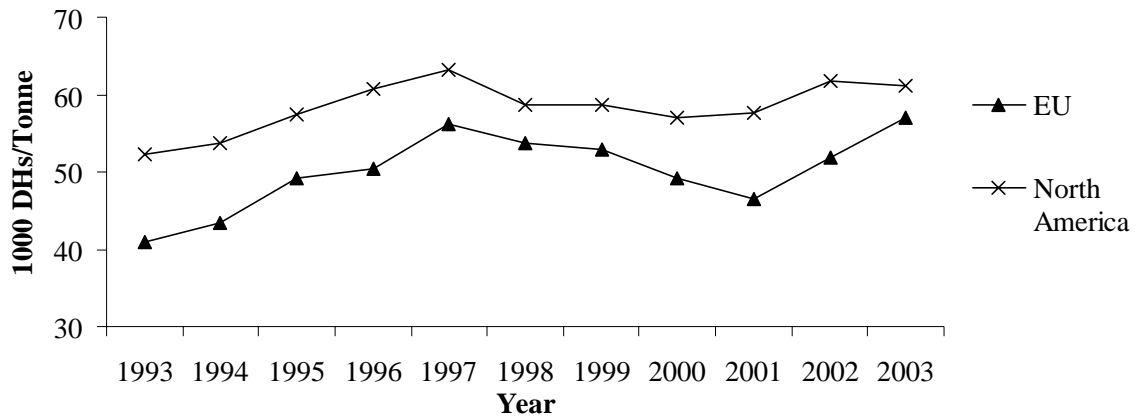
Source: MPM

Considering price, semi-preserved anchovies command a higher price on the American market compared to the EU market, but as can be seen in Figure 8 the export value/tonne for the both markets now seem to be converging. However, it is not likely that the previous price difference was related to differences in

no impact on foreign customers since they are not aware of the significance of the label and thus rely more on a well-known brand rather than on the *Label Maroc*-label.

product quality on the two markets. Rather it is to be explained by the traditional market forces of supply and demand.

Figure 8. Development of unit value for semi-preserved anchovies exports



Source: MPM

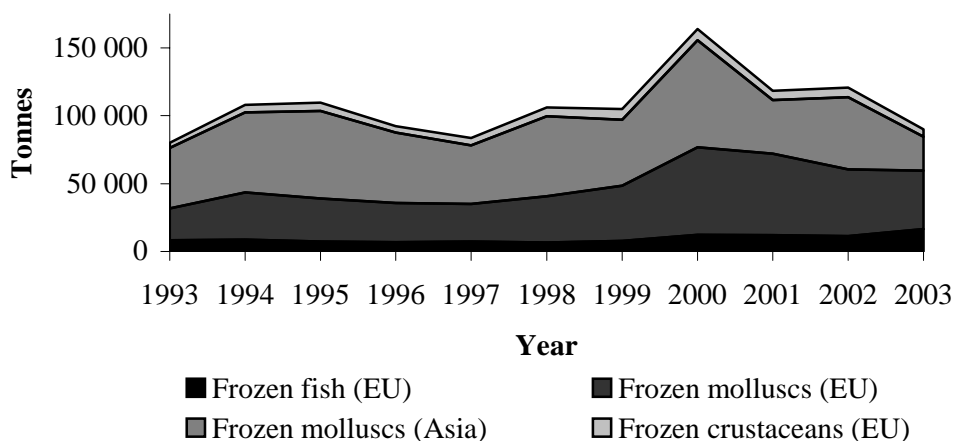
Even though the exporters interviewed within the semi-preserve industry generally consider standards as reasonable and beneficial for the up-grading of the sector, they maintain that standards may constitute an impediment to the development of new products. Their main objection to the EU legislation is that it is too detailed and does not take special requirements for different products into consideration.

6.2.3.3 Exports of frozen fish

In comparison with the two previous sectors, the frozen fish industry is of lower value-added character. Once the fish has been caught and sorted, it is normally frozen immediately on board and the degree of processing is thus low. To secure food safety, it is of crucial importance that freezing facilities on board correspond to ruling standards. Such facilities are expensive and can therefore constitute a barrier to Moroccan frozen fish exports.

Considering export volume, this varies a lot between different species (Figure 9). The export of frozen fish (mainly white fish) constantly increased throughout the period and was almost exclusively destined for the EU market. So was exports of crustaceans, for which export volume remained constant during the time frame 1993-2003. Molluscs (mainly cephalopod species) constitute the main product group within the sector and exports varied considerably over the period. EU and Japan are the major export markets for molluscs and since 2000 exports to both markets have decreased. The decline is however not the result of increased food safety standards. Instead it is due to exhaustion of resources and restricted capture quotas, which is why exports of frozen cephalopods are now operating at much reduced capacity. The exporters interviewed are concerned about this situation. They feel there is a strong demand for their products but are unable to meet this demand and are frustrated about consequently losing market shares. An exporter also points out that the lack of primary products has driven up the prices of Moroccan products to a level where customers have started to look for cheaper substitutes. This exporter also believes that price affects consumer choice more than quality.

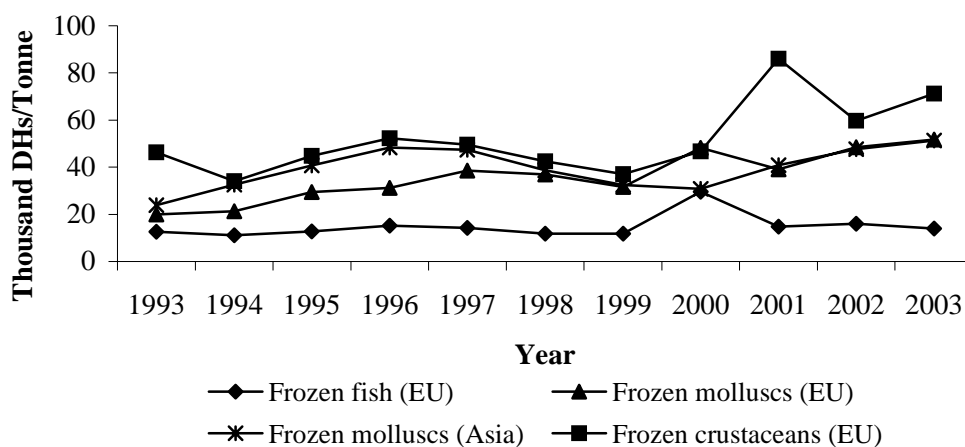
Figure 9. Volume of exports of frozen fish to major export markets 1993-2003



Source: MPM

However, with declining resources it seems like exporters prefer exporting to the EU market. The explanation for this could possibly be found in unit values. As can be observed in Figure 10, the Asian market paid a higher price than the EU for a long time, but since 2001 the price for molluscs has converged on the both markets. Again, supply and demand are more likely to be the driving forces behind this evolution than are quality improvements.

Figure 10. Unit values of frozen product exports



Source: MPM

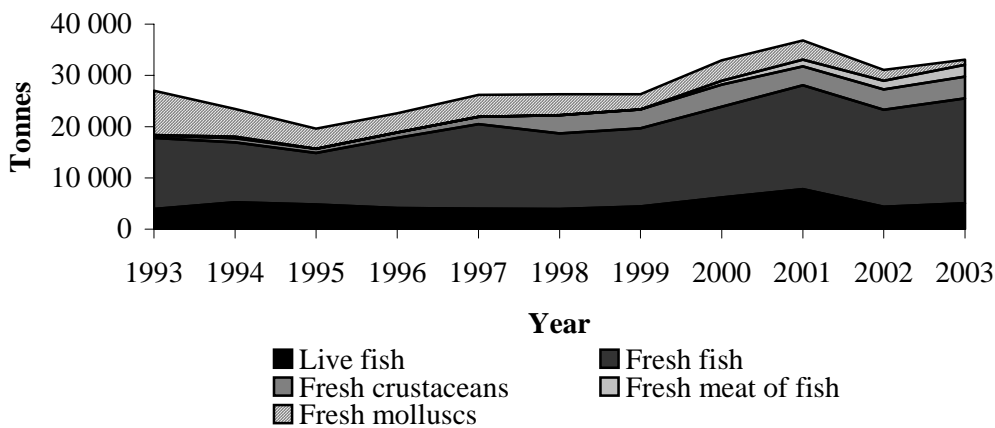
With regard to exports of frozen crustaceans to the EU, they represent a very little part of total exports but constitute nevertheless the product group with the highest value per tonne. As far as exports of frozen fish to the EU are concerned they show no real variation in price except for a peak in 2001.

In conclusion, sanitary and phytosanitary standards do not seem to have affected exports of frozen fish negatively. From the mid-90s and onwards, the Moroccan freezing industry has in fact received large investments and undergone an important modernization. It is now equipped with modern technology meeting the strictest international standard but is severely constrained by the exhaustion of marine resources.

6.2.3.4 Exports of fresh seafood

Because of the proximity to Europe, exports of fresh fish from Morocco are mainly oriented towards the EU where the demand for fresh seafood is constantly increasing. Exports include live and fresh fish, fresh molluscs, crustaceans, fillets and meat of fish. The volume of fillets of fish is however relatively low and therefore excluded from the figure below (Figure 11).

Figure 11. Exports of main fresh fish products to the EU 1993-2003

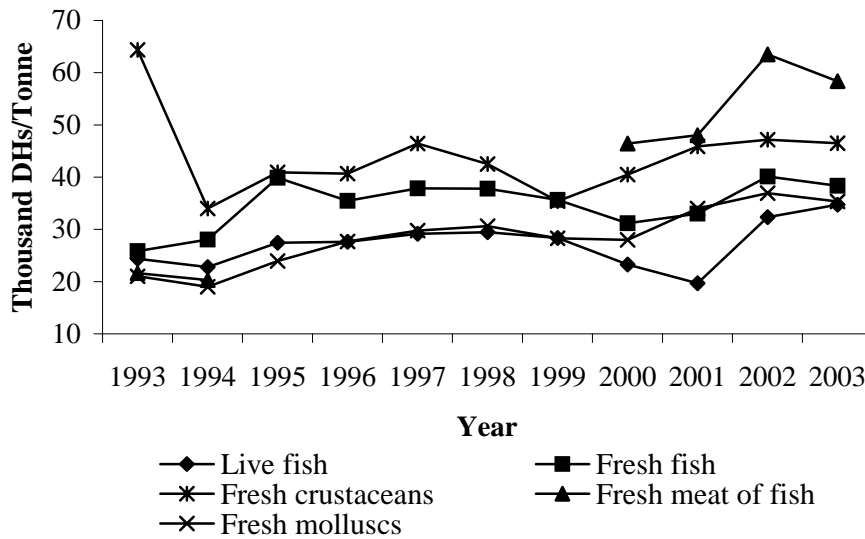


In relation to exports of cans and frozen fish, exports of fresh fish are small. Nonetheless exports of fresh seafood show a clear up going trend. The only exception is the export of molluscs that for already mentioned reasons has declined.

Unit values for fresh seafood vary depending on the product group and even though prices have increased somewhat they show overall little variations over time (Figure 12). A possible explanation for this is that the value-added for fresh fish is low and that the seafood exported in live or fresh condition is caught close to the shoreline from small traditional boats that have not yet been modernized. The price increase for fresh molluscs is thus rather the result of a decrease in supply than quality improvement. For the other product groups increased demand in the EU could have affected prices positively. However, no specific explanation

for this has been provided either by the sector itself or by the administration and therefore remains nothing more than a best guess. A possible quality improvement that might have had an effect on unit value is the fact that fishermen have improved their catching methods somewhat and thereby reduced both waste and the catch of small sized fish likely to be of lower value.

Figure 12. Unit values of fresh fish exports to the EU



Source: MPM

After having covered all export sectors, it becomes clear that it is within the export sector for fresh seafood that the least standardizing and quality improving measures have been made. Even though it is an explicit ambition for the MPM and the ONP to modernize the coastal fishing fleet, the problem of financing remains. With increased safety requirements and EU legislation stating mandatory traceability throughout the supply chain with the “farm to table” approach, the necessity to modernize the sector becomes even more urgent. Exports of fresh fish are relatively high value and with an increasing demand for fresh seafood products it is important for the sector to undergo a modernization process in order to stay competitive and increase export capacity. Therefore, it is

interesting to observe what will happen to the modernization of the coastal fishing fleet and how the taken path will affect exports in the future.

6.2.3.5 Foreign Direct Investments

As far as FDI is concerned, the MPM has no available information about the ownership (foreign or domestic) of seafood export firms, or about the number and sizes of operating firms. Therefore it is not possible to see whether foreign-owned firms perform better than domestically-owned firms as theory would suggest.

6.3 Summarizing remarks

The *compliance* strategy of the administration is also the main strategy opted for by the Moroccan seafood exporters even though there seems to be a slight share of exporters that have decided on the *exit* strategy. This exit strategy however seems to be induced by improved trading conditions with actors on the African markets rather than by food safety standards.

It is clear that the combined efforts of the administration and the seafood export sector are paying off well. Exports of both canned and frozen fish increased remarkably over the period and these product groups also showed increases in unit value indicating a quality improvement of the products within these two sub-sectors. Nevertheless, the exports of frozen fish have declined since the beginning of this century. This decline is however due to an exhaustion of mainly cephalopod populations and is thus not related to any known food safety concerns. Moreover, the fluctuations in unit values for frozen fish seem to be driven mainly by supply and demand forces. Exports of fresh seafood and semi-preserved products remain at comparatively low levels even though export volumes of both product groups increased over the period, as did their respective unit values.

7 Food safety standards: a catalyst to Moroccan seafood exports

With the European Union, Japan and the US as major export markets for the seafood products comprising the highest values, there is a pressure on Morocco to deliver safe and high quality products, a pressure that dates even decades back in time because of Morocco's historical dependence upon mainly the European markets. Despite the sharpening of food safety measures on these markets and Morocco being a relatively poor developing country, the processing industry has never considered an exit strategy of re-orientation of exports towards markets with lower standards as an alternative to compliance. Moreover, the administrative approach towards standards clearly supports the compliance strategy and also stresses the importance of voice. Taken together, this makes Morocco an example of a country where both the processing industry and the administration opted at an early stage for a proactive compliance strategy in response to the emergence of international food safety standards; showing that even a relatively poor developing country can adopt a successful proactive compliance strategy, providing support for the standards-as-catalyst perspective. Considering the perceptions and approaches of both exporters and public administrative staff, the unambiguous result is that this work has paid off well. Through modernization and standardization work the seafood exporting sector has increased the value of its products and engendered a competitive advantage over countries reacting more slowly to the evolution of international food safety standards. In the case of Morocco, international food safety standards have had

an indisputable catalyst effect on the development of the fishery sector and its exports.

The future of Moroccan seafood exports indeed is promising, even though it will continue to be restrained for a couple of more years due to exhaustion of resources. Moreover, the important modernization of the coastal fleet still remains and if not undertaken within a foreseeable future, Morocco will run the risk of losing some of its competitive advantage. For the future it will be interesting though to see whether the measures taken by Moroccan seafood exporters and the public administration in a satisfactory way will match the sharpening of EU food safety regulations through its General Food Law, and moreover cope with the increase of private food safety standards. With regard to private food safety standards it will also be interesting to observe if these will be reflected in increases of FDI.

The Moroccan case is a clear success story, but it has to be stressed that Morocco is only one of the large and heterogeneous group of developing country seafood exporters. Therefore, no general conclusions about the impact of international food safety standards on developing country exports can be drawn from this particular case. It is still likely that a field study in a poorer developing country will yield a far more devastating picture of food safety standards and their impact on exports from developing to industrial countries.

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Defining EU-standards for handling, processing, storing and transporting fish and fishery products including bivalve molluscs.

Council Directive 92/59/EEC on “General Product Safety”

Commission Decision 94/356/EEC

Laying down detailed rules for the application of *Council Directive 91/493/EEC* as regards own health checks on fishery products.

Council Directive 95/71/EEC amending *Council Directive 91/493/EEC*

Fixing sanitary rules governing the production and placing on the market of fishery products.

Council Directive 97/78/EC

Laying down the principles governing the organisation of veterinary checks on products entering the Community from third countries

Council Directive 97/79/EC amending *Council Directive 91/493/EEC*

The amendments regard the organisation of veterinary checks on products entering the Community from third countries.

Commission Decision 2001/67/EC

Establishing a health certification for fishery products from third countries

Regulation EC/178/2002: The General Principles of Food Law.
Establishing EFSA as well as the FVO and the RASFF.

Council Directive 2002/99/EEC

Laying down the animal health rules governing the production, processing, distribution and introduction of products of animal origin for human consumption

Regulation 136/2004/ECC

Laying down principles for veterinary checks carried out at the first point of entry to the European market.

Commission Decision 2004/359/EC

Includes the list of countries and territories from which importation of fishery products in any form intended for human consumption is authorised.

Regulation 852/2004/EC

Establishes general requirements for primary production, including HACCP.

Regulation 853/2004/EC

Laying down specific hygiene rules for live bivalve molluscs, fishery and processed products.

Regulation 854/2004/EC

Establishing specific rules for the organization of official controls on products of animal origin intended for human consumption.

Regulation 882/2004/EC: The Food and Feed Control Regulation

Current authorization to import from List 2 countries expires 31 December 2005.

Regulation 2004/41/EC

Repeals the 17 old directives that up till now have controlled hygiene requirements in the EU

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Appendix

Appendix 1 – Fisheries Partnership Agreements

The first Fisheries Partnership Agreement (FPA) between Morocco and the EU was signed in 1988 and then renewed twice before its final ending in 1999. This agreement was by far the most important agreement between the EU and a third country regarding fishery. Morocco received economic compensation for letting the EU fish in their waters. In the agreement lasting from 1995 to 1999, the financial contribution paid by the EU was set at € 500 million and divided according to: 1) €355 million for the financial compensation; 2) €121 million for co-operation in the fisheries sector; 3) €16 million for scientific research on marine living resources; and 4) €8 million for training.⁴⁷ In 1999 the agreement was to be renegotiated but thus time the parties could not agree over a new FPA for the following reasons: First, Morocco wanted a limit regarding the number of vessels allowed for certain key commercial fisheries, notably cephalopods and shrimps and Morocco also demanded certain conditions to be set up for example obligatory landings, fishing zones, gear and biological rest periods; especially regarding cephalopods and shrimps that are not within sustainable biologic limits in Moroccan waters. The second issue concerned the amount of compensation to be granted for a renewal of the agreement.

In July 2005 the EU and Morocco anew signed an agreement concerning the rights of the EU to fish in Moroccan waters. This agreement will last for four years and marks the renewal of the fisheries relations between the two parties after the previous agreement came to an end in 1999.

With the new FPA that the two parties agreed upon shrimp and cephalopod species are now excluded, which is the major difference with respect to the

⁴⁷ EC Press release, “EU/Morocco Fisheries Partnership Agreement: Past and Future”

previous agreement.⁴⁸ The financial compensation from the European Union to Morocco will amount to €144 million for the whole period (€36 million per annum). A substantial part of this amount will be earmarked for measures specifically designed to help Morocco's small-scale coastal fleet and to support the development of sustainable fishing activities in Moroccan waters. Other areas for which the financial compensation has been earmarked are modernizing the marketing and promotion structures for fisheries products, upgrading the landing and handling of fisheries products and modernizing the Moroccan coastal vessels.⁴⁹

⁴⁸ EC Press release, "Commissioner Borg's speech on the new EU-Morocco Agreement"

⁴⁹ EC Press release, "Commissioner Borg welcomes a new fisheries partnership agreement with Morocco"

Appendix 2 – List of interviews

Seafood exporting firms interviewed:

AMADIR – Agadir
Producer of canned fish.
Contact person: Mrs Fatima MOUSSAID

AMANDINE – Agadir
Producer of canned fish.
Contact person: Oussama ALAOUI BELGHITI

L'ESPADON – Agadir
Producer of canned fish.
Contact person: Driss DADOUN

MIPROMER – Agadir
Producer of frozen fish.
Contact person: Mourad CHOUIAKH

SIALCO - Agadir
Producer of semi-preserved fish.
Contact person: Giuseppe CUSUMANO

VANELLI – Agadir
Producer of semi-preserved fish.
Contact person: Patrick GARCIA

Ministry of Maritime Fisheries – Rabat and Agadir:

Mrs Zakia DRIOUICH,
Chef de la Division du Contrôle des produits, de la Normalisation et de la
Promotion commerciale.

Mrs Sabah LAZRAQ,
Chef du service du contrôle technique et de la modernisation.

Mrs Majida MAÂROUF,
Chef de service de la gestion et le l'Aménagement des Ressources.

Mr Mohamed TAOUFIQ,
Chef de la Division des Investissements et de la Programmation

Mr Hachim EL AYOUBI
Programme de la Modernisation de la Flotte

The European Commission's Delegation in Morocco – Rabat:

Mrs Monique MARQUION,
Coopération – Commerce et Affaires économiques

EACCE – Agadir:

Mr Youssef BIQUECH,
Délégué Principal, Délégation principale des Produits de la Pêche et Produits
Végétaux Transformés

Veterinary Service – Agadir:

Mr Regragui D'DARDAR,
Chef du Service Vétérinaire, Agadir

Mr Alahkam Lahcen,
Service Vétérinaire, Agadir

ONP – Casablanca:

Mrs Fatima-Zahra ABOU-IBRAHIMI,
Chef de Service des Études Générales

Mr Khalid EL BASRI,
Chargé de projets

Appendix 3 –

Technical assistance and SDT in the SPS Agreement

Article 9

Technical Assistance

1. Members agree to facilitate the provision of technical assistance to other Members, especially developing country Members, either bilaterally or through the appropriate international organizations. Such assistance may be, inter alia, in the areas of processing technologies, research and infrastructure, including the establishment of national regulatory bodies, and may take the form of advice, credits, donations and grants, including for the purpose of seeking technical expertise, training and equipment to allow such countries to adjust to, and comply with, sanitary or phytosanitary measures necessary to achieve the appropriate level of sanitary or phytosanitary protection in their export markets.
2. Where substantial investments are required in order for an exporting developing country Member to fulfil the sanitary or phytosanitary requirements of an importing Member, the latter shall consider providing such technical assistance as will permit the developing country Member to maintain and expand its market access opportunities for the product involved.

Article 10

Special and Differential Treatment

1. In the preparation and application of sanitary or phytosanitary measures, Members shall take account of the special needs of developing country Members, and in particular of the least-developed country Members.
2. Where the appropriate level of sanitary or phytosanitary protection allows scope for the phased introduction of new sanitary or phytosanitary measures, longer time-frames for compliance should be accorded on products of interest to developing country Members so as to maintain opportunities for their exports.
3. With a view to ensuring that developing country Members are able to comply with the provisions of this Agreement, the Committee is enabled to grant to such countries, upon request, specified, time-limited exceptions in whole or in part from obligations under this Agreement, taking into account their financial, trade and development needs.
4. Members should encourage and facilitate the active participation of developing country Members in the relevant international organizations.

The WTO Secretariat provides assistance to developing countries regarding the implementation of the SPS Agreement. This assistance is mainly demand driven and in most cases given in form of regional seminars ranging from basic information on rights and obligations to specific problematic topics for the region concerned. The three standard-setting organizations: Codex Alimentarius, OIE and IPPC, as well as the UN body Food and Agricultural Organization (FAO) usually participate. Technical assistance is also given bilaterally by WTO members and international organizations.⁵⁰ In the EU, both the European Commission and individual member states have provided assistance.⁵¹ A typology of technical assistance (G/SPS/GEN/206) has been developed by the Secretariat, aimed at targeting the most efficient form of technical assistance for different needs. The SPS Committee plays an important role in the assistance work since members have the opportunity to request assistance at their meetings or just exchange information on assistance provided or received.

One of the tasks of the Committee is to oversee the implementation of the Agreement, which includes looking at special and differential treatment for developing country members. However it has shown difficult to judge to what extent developing countries receive special treatment. The Committee has received little information on the practical implementation of Article 10.1 and it is thus uncertain to what extent the special needs of developing countries are taken into account. What is certain is that the pressure of public opinion in favour of strict standards and controls has increased in industrial countries as a direct result of recent years' food scandals. Due to the severity of the scandals, there is an overall interest in these countries to protect humans, animals and plants from risks related to food imports. Therefore, there is a severe conflict of interests between on the one hand meeting developing countries' export interests, and on

⁵⁰ The Standards and Trade Development Facility (STDF) Database provides information on technical assistance related to sanitary and phytosanitary measures and is available at <http://stdfdb.wto.org/>

⁵¹ Kommerskollegium/National Board of Trade (2004), p. 151

the other hand providing protection against food-related health risks.⁵² The same uncertainty concerns Article 10.2 about longer time-frames. It seems however that the delay of two to five years for developing countries to implement the Agreement was sufficient since no country has asked for exceptions under Article 10.3. When it comes to developing countries' participation in international standardization work, this is encouraged by the standard-setting organizations themselves, the WTO Secretariat and FAO funds through its Food Safety and Quality Facility.

⁵² Kommerskollegium/National Board of Trade (2004), p. 154

Appendix 4 – List I and List II countries

14.7.2005

EN

Official Journal of the European Union

L 183/109

COMMISSION DECISION

of 12 July 2005

amending Decision 97/296/EC drawing up the list of third countries from which the import of fishery products is authorised for human consumption, with respect to Algeria, the Bahamas and Grenada

(notified under document number C(2005) 2551)

(Text with EEA relevance)

(2005/501/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

(3) In the interest of clarity, the lists concerned should be replaced in their entirety.

Having regard to the Treaty establishing the European Community,

(4) Decision 97/296/EC should therefore be amended accordingly.

Having regard to Council Decision 95/408/EC of 22 June 1995 on the conditions for drawing up, for an interim period, provisional lists of third country establishments from which Member States are authorised to import certain products of animal origin, fishery products or live bivalve molluscs ⁽¹⁾, and in particular Article 2(2) thereof,

(5) This Decision should apply from the same day as Decisions 2005/498/EC, 2005/499/EC and 2005/500/EC as regards the import of fishery products from Algeria, the Bahamas and Grenada.

(6) The measures provided for in this Decision are in accordance with the opinion of the Standing Committee on the Food Chain and Animal Health,

Whereas:

HAS ADOPTED THIS DECISION:

(1) Commission Decision 97/296/EC of 22 April 1997 drawing up the list of third countries from which the import of fishery products is authorised for human consumption ⁽²⁾, lists the countries and territories from which import of fishery products for human consumption is authorised. Part I of the Annex to that Decision lists the countries and territories covered by a specific Decision under Council Directive 91/493/EEC of 22 July 1991 laying down the health conditions for the production and the placing on the market of fishery products ⁽³⁾, and part II of that Annex lists the countries and territories meeting the conditions set out in Article 2(2) of Decision 95/408/EC.

Article 1

The Annex to Decision 97/296/EC is replaced by the text in the Annex to this Decision.

Article 2

This Decision shall apply from 28 August 2005.

Article 3

This Decision is addressed to the Member States.

Done at Brussels, 12 July 2005.

(2) Commission Decisions 2005/498/EC ⁽⁴⁾, 2005/499/EC ⁽⁵⁾ and 2005/500/EC ⁽⁶⁾, set specific import conditions for fishery products from Algeria, the Bahamas and Grenada. Those countries should therefore be included in the list in part I of the Annex to Decision 97/296/EC.

For the Commission

Markos KYPRIANOU

Member of the Commission

⁽¹⁾ OJ L 243, 11.10.1995, p. 17. Decision as last amended by Directive 2004/41/EC of the European Parliament and of the Council (OJ L 157, 30.4.2004, p. 33) (corrected version in OJ L 195, 2.6.2004, p. 12).

⁽²⁾ OJ L 122, 14.5.1997, p. 21. Decision as last amended by Decision 2005/219/EC (OJ L 69, 16.3.2005, p. 55).

⁽³⁾ OJ L 268, 24.9.1991, p. 15. Directive as last amended by Regulation (EC) No 806/2003 (OJ L 122, 16.5.2003, p. 1).

⁽⁴⁾ See page 92 of this Official Journal.

⁽⁵⁾ See page 99 of this Official Journal.

⁽⁶⁾ See page 104 of this Official Journal.

ANNEX

'ANNEX

List of countries and territories from which importation of fishery products in any form intended for human consumption is authorised

I. Countries and territories covered by a specific decision pursuant to Council Directive 91/493/EEC

AE — United Arab Emirates	LK — Sri Lanka
AG — Antigua and Barbuda	MA — Morocco
AL — Albania	MG — Madagascar
AN — Netherlands Antilles	MR — Mauritania
AR — Argentina	MU — Mauritius
AU — Australia	MV — Maldives
BD — Bangladesh	MX — Mexico
BG — Bulgaria	MY — Malaysia
BR — Brazil	MZ — Mozambique
BS — The Bahamas	NA — Namibia
BZ — Belize	NC — New Caledonia
CA — Canada	NG — Nigeria
CH — Switzerland	NI — Nicaragua
CI — Ivory Coast	NZ — New Zealand
CL — Chile	OM — Oman
CN — China	PA — Panama
CO — Colombia	PE — Peru
CR — Costa Rica	PG — Papua New Guinea
CS — Serbia and Montenegro ⁽¹⁾	PH — Philippines
CU — Cuba	PF — French Polynesia
CV — Cape Verde	PM — St Pierre and Miquelon
DZ — Algeria	PK — Pakistan
EC — Ecuador	RO — Romania
EG — Egypt	RU — Russia
FK — Falkland Islands	SA — Singapore
GA — Gabon	SC — Seychelles
GD — Grenada	SG — Saudi Arabia
GH — Ghana	SN — Senegal
GL — Greenland	SR — Suriname
GM — Gambia	SV — El Salvador
GN — Guinea Conakry	TH — Thailand
GT — Guatemala	TN — Tunisia
GY — Guyana	TR — Turkey
HK — Hong Kong	TW — Taiwan
HN — Honduras	TZ — Tanzania
HR — Croatia	UG — Uganda
ID — Indonesia	UY — Uruguay
IN — India	VE — Venezuela
IR — Iran	VN — Vietnam
JM — Jamaica	YE — Yemen
JP — Japan	YT — Mayotte
KE — Kenya	ZA — South Africa
KR — South Korea	ZW — Zimbabwe
KZ — Kazakhstan	

⁽¹⁾ Not including Kosovo as defined by the United Nations Security Council Resolution 1244 of 10 June 1999.

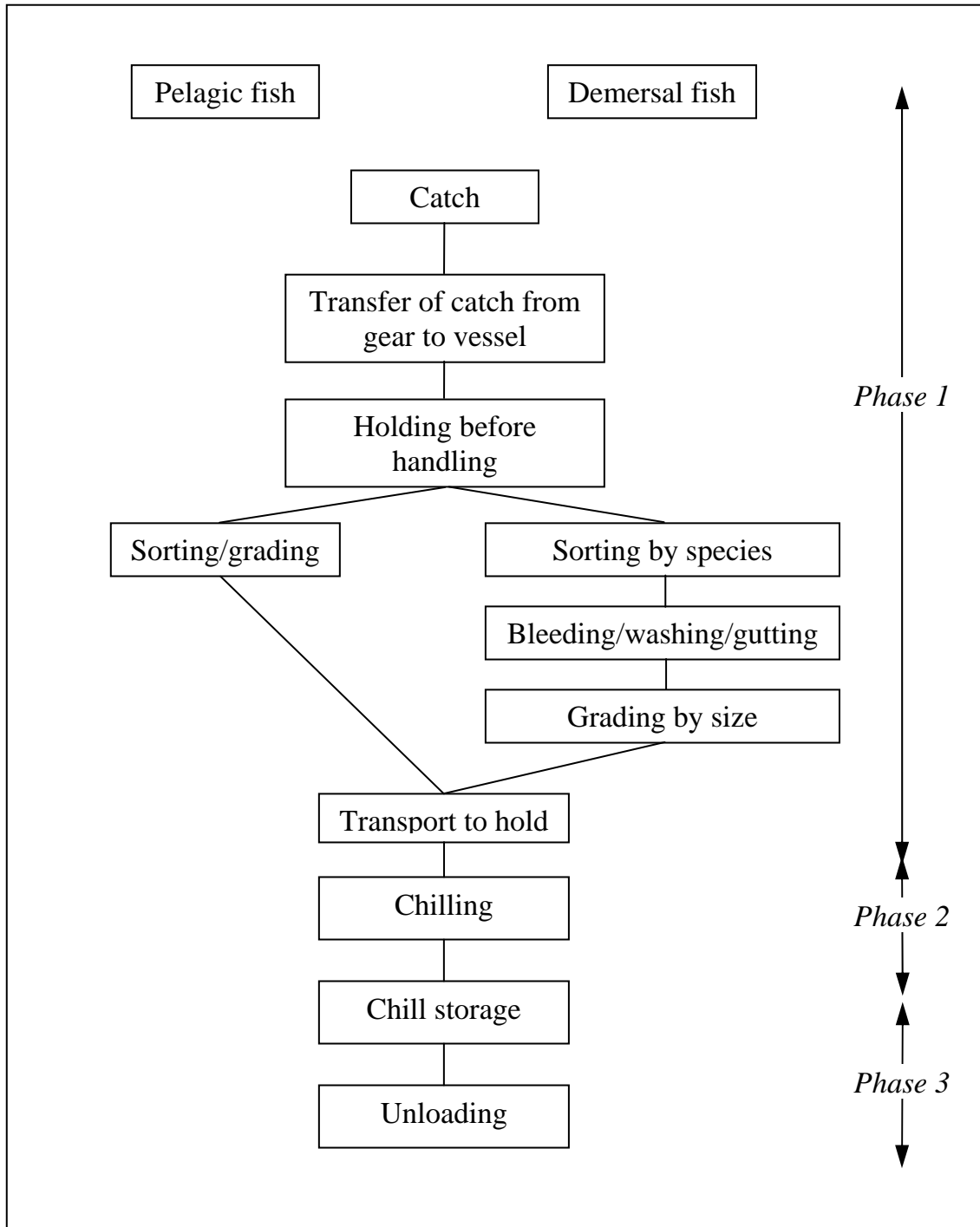
II. Countries and territories meeting the terms of Article 2(2) of Council Decision 95/408/EC

AM — Armenia ⁽¹⁾	FJ — Fiji
AO — Angola	IL — Israel
AZ — Azerbaijan ⁽²⁾	MM — Myanmar
BJ — Benin	SB — Solomon Islands
BY — Belarus	SH — St Helena
CG — Republic of Congo ⁽³⁾	TG — Togo
CM — Cameroon	US — United States of America
ER — Eritrea	

⁽¹⁾ Authorised only for imports of live crayfish (*Astacus leptodactylus*) intended for direct human consumption.
⁽²⁾ Authorised only for imports of caviar.
⁽³⁾ Authorised only for imports of fishery products caught, frozen and packed in their final packaging at sea.

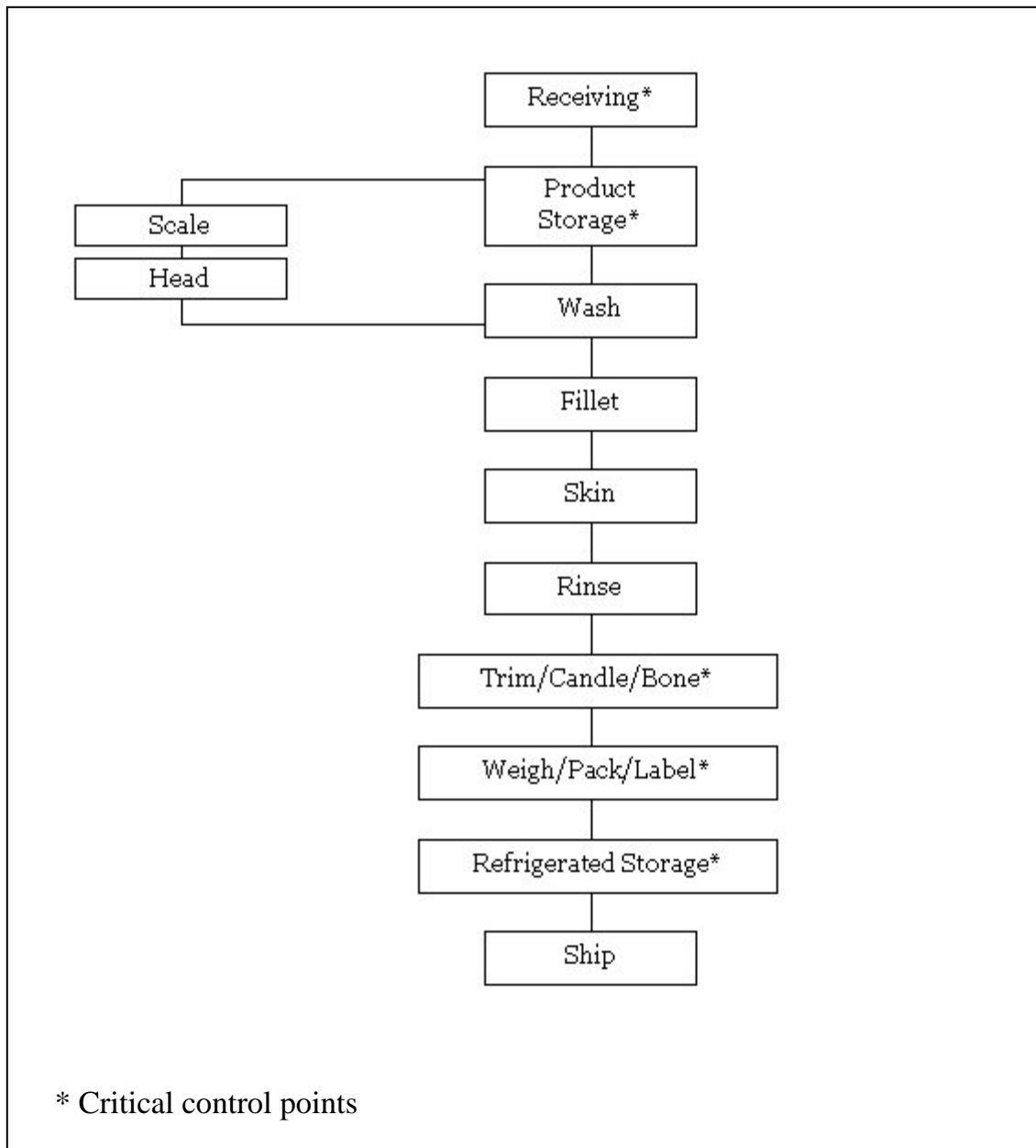
Appendix 5 – Examples of the seafood supply chain

Figure 1. From catch to processing industry



Source: FAO Technical Paper N° 348

Figure 2. Example of the processing industry



Source: <http://www.aimu.org/images/flowchart.jpg>