FINAL REPORT

Certification assessment, EU policies related to the application of seafood certification and proposed solutions to support the application of certification in Vietnam

ACTIVITY CODE: EU 26

"Improve the understanding of local producers and managers on market requirements for certified seafood exporting European countries"

(Final version)

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INTRODUCTION

The following study has been compiled by 3 Vietnamese and one EU consultant. It looks at the relevance of the European market in comparison to the increasingly relevant Asian development and the US. It focuses on their voluntary standards system and meaning for market access, their content and relevance for Vietnam. The most relevant standards are explained and brought into the Vietnamese perspective.

A field study in a Northern province, in one of the middle of Vietnam and in the South, shows on one hand substantial differences in the structure of the industry in these provinces as well as diverse level of application of voluntary standards and provisions from the administrative side in these different locations. Provincial recommendations have been worked out and the most relevant once are summarized at the end.

In the course of the project a workshop in two locations took place and the discussions found have been integrated into this report.

EXCUTIVE SUMMARY

1. The EU Market:

The EU is the largest trader of fishery and aquaculture products in the world in terms of value and volume. EU trade – comprising extra-EU imports and exports, and intra-EU exchanges – has increased steadily over the past five years. In 2014, the trade flow amounted to EUR 45,9 billion and 13,8 million tonnes.

Values of extra-EU imports have been increasing since 2009, at an average annual growth rate of 6%. In 2014, the EU imported fish and seafood for a value of some EUR 21 billion. Extra-EU imports of seafood are more than 4 times higher than meat in value, and this ratio is increasing.

EU self-sufficiency for seafood (production relative to internal consumption) reduced continuously between 2008 and 2011. This concerns all major export products from Vietnam as e.g. shrimp, tuna and white fish and poses a growing market.

2. Vietnamese Export development and orientation

Vietnamese exports increased on a regular basis over the last years except for catfish/pangasius. This was one of the major items for Europe. The product got hit by some external factors as universal price developments for feed, making it less competitive. Plus competing species like Alaska Pollock became stronger again after the resources had recovered after some sustainability measures. The price and market squeeze let the industry accept strategies that compromised quality and production conditions with a strong negative effect for the image of the product.

Also to save the pangasius industry all together by building up activities to brush up the image of the product again, government widely in cooperation with the relevant associations issued new regulations. From the importing industries more guaranties for process control through the value chain were demanded in form of voluntary labels, which is the main theme of this study.

The background of the stronger demand, some say “inflation” of voluntary labels is much wider than the above discussed development but for the pangasius industry it became vital in order to restore the damaged image. So far this was only partly successful. Pangasius markets still have a way to go towards full recovery.

Often recommendations are given to re-orientate to markets with less exigent demands in standards than the European. Under consideration of the world market dynamics the choices are limited. It needs to be noted also that, if companies fulfil the European requirements, their access to other markets may it be Russia or the more interesting markets in Latin America is facilitated easier.

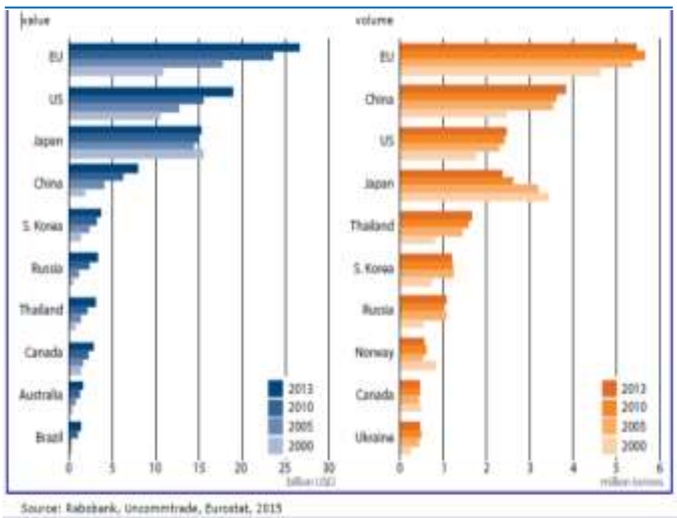


Figure 1: The EU is the main global importer of seafood, 2000-20013

The graph to the left shows that the biggest value market is EU followed by US and Japan. Both of these countries have their own ways of applying their standards. The US requirements on products are not below the European’s. But the systematics varies, of how food safety and other objectives are supposed to be achieved. Also the US requires a wide set of labels when retail markets are trade partners. China seems to be an easy way out. Whereby a relation of volume to value in this market

Shows, the Chinese market may have lower expectations but also pays substantially lower prices than EU. The higher prices in EU, US, Japan do not only signal higher value raw materials but also products in a higher degree of value addition are traded there. This leaves Vietnam as a society with a higher wealth creation from their natural resources if they export in these countries instead of China.

3. The legal requirements

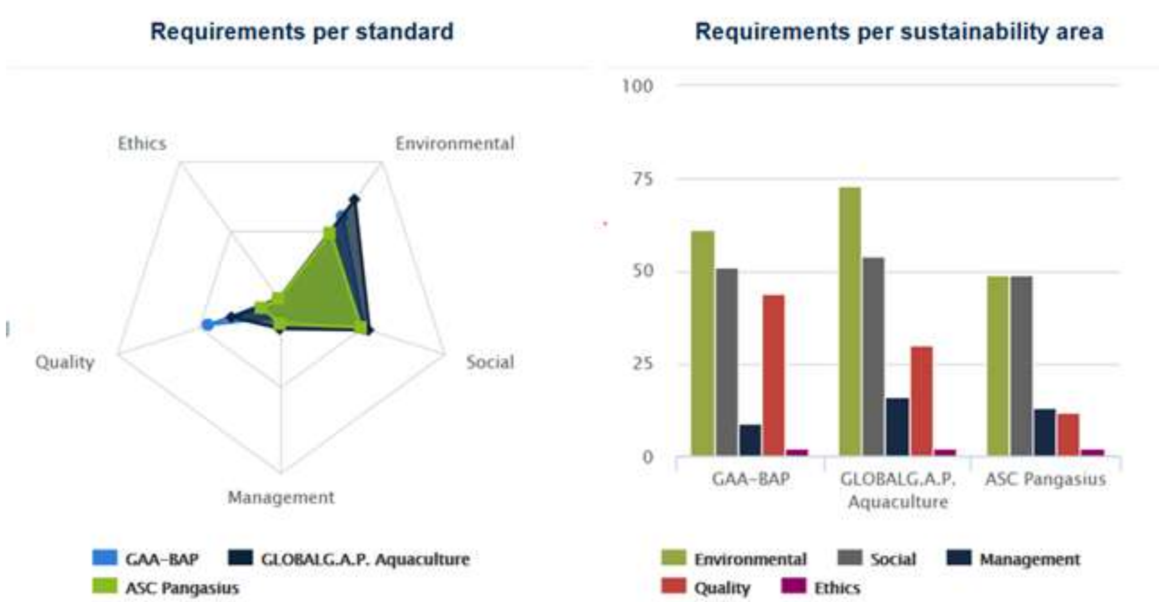
The market position must not mean European legislation should not be seen also with a critical eye. The food safety measures, based on SSOPs and HACCP meanwhile are widely implemented and accepted. Several countries still struggle with the implementation of traceability when small units, farms or vessels are involved, because products from these resources are often collected by middlemen, who are neither legally considered sufficiently by the EU nor by the local, in this case Vietnamese authorities.

Even more confusion is created with IUU, also the objectives of this legislation must be supported, but its related bureaucratic implementation procedure seems difficult to be implemented. This is not only the case in Vietnam. The very careful reinforcement of these regulations from EU side may also signal that some deficits in the making of the law are seen by its creators. This is not supposed to be an invitation to ignore the requirements. But may be local association together with competent authorities come up with suggestions to be considered by the EU.

4. The Voluntary Standards

Up to 30 voluntary standards might be requested from exporters to the EU depending on their individual groups of buyers. There is a certain ratio in the criticizing of the number of standards in the market. Since this is not regulated in much detail by EU authorities the further development will depend on the market dynamics, also the EU has announced to work towards the reduction of standards. Voluntary standards are mostly issued by NGOs or buyer organizations. These may be in competition with each other and therefore have an interest in differentiation rather than in harmonization. When we look at the 3 most relevant categories farming, sea-catch and trade, we can show with help of ITC/Intracen standard map the differentiation of the 3 most relevant labels in these categories is rather marginal.

In **farming** the most relevant Labels are GlobalGAP, ASC, BAP



Number of requirements per sustainability area for each of the standard, as referenced in the Standards Map database.

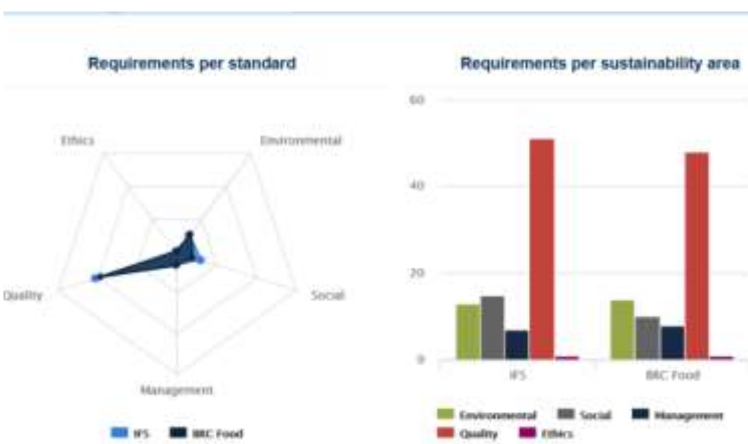
Number of requirements for each of the standards broken down per sustainability area, as referenced in the Standards Map database.

As can be shown in the graph there are certain differentiations in certain features. But the principal difference is that GlobalGAP is a B2B label, while ASC and BAP are labels to be found with their logo on the package and allow the supermarkets to ask a higher price from the consumer. All three labels are used in Vietnam. ASC and BAP are seen to be more difficult to be achieved than GlobalGAP. From an environmental point of view a wide spread GlobalGAP certification would be to be preferred to fewer of the other labels, also these have a higher visibility to the public = expected economic effect.

The Vietnamese government developed their own label VietGAP orientated on GlobalGAP. For Pangasius farms this is compulsory in case no other such label is achieved by the farms.

In **sea catch** a similar picture would appear if we compare MSC (Marine Stewardship Council) with the Friends of the Sea (FoS) logo. FoS mainly accepted in Italy. MSC is difficult to get for tuna, mainly because tuna migrates through different waters. As well the Americans as the Europeans want a “Dolphin Free” label. Without that barely any tuna can be sold into the canning industry anymore. Products with labels might fetch higher prices than without. This is definitely true for MSC tuna. But most of the labels guaranty a relatively stable market.

Retailer associations such as the Agri Food Group have developed own food safety initiative as e.g. the GSFI (Global Food Safety Initiative), they have come up with a label “IFC” (International Food Standard). Since also the retail world is pluralistic and competitive more than one standard exist, the BRC standard (British Retail Consortium) differs only marginal from the IFS:



In practice it is more the management and the control that differs. Meanwhile, at least in fish, the BRC standard is wider distributed. In most trade locations an acceptance of both standards seams to become practice. But again: the last word is with the client.

These standards have high but not new requirements. They basically focus on a far going implementation of legal requirements with certain social and management requirements. The later can be found also in the ISO standards (most important presently ISO 22000).

It needs to be mentioned that not all EU countries have the same high requirements with respect to labels. But most of the big interesting markets in middle Northern EU do. Since traders wants as well be on the save side (safety, quality) and do not like to be restricted where to sell to, they rather prefer to trade products with labels to those without.

5. The Vietnamese Situation

As Europe also Vietnam is divided in different regions with inhomogeneous developments and economic structures. In the course of the project three regions (North, Centre, and South) were visited and interviews with different stakeholders: industry, administration and political were made.

It is not really surprising that the highest compliance with legal requirements and density of voluntary standards is found in **the South** (up to 15 standards in one company, but not only for the EU market). Most important in the South is farming of Pangasius and Shrimp. More than 15 relatively big, internationally operating companies dominate the industrial structure. Several of these units have come out of big formerly state owned companies. The Pangasius facilities did not have an easy life the last years but have been accumulating capital in the growth years of the last decade. Pangasius was originally nearly exclusively directed towards the central EU market such as Germany and Holland, so already confronted with the demand for high standards from the beginning. Further strong corrective action was required as well from the market as by the Vietnamese government when the Pangasius crisis hit 2008/9.
As a result the compulsory VietGAP legislation (around Decree 36) was developed.

The shrimp producers in the South, dealing with kind of a high value product for which also the American market has high standard demands, understand the market demand and seem to have the capital to implement according to this demand.
According to the interviews also the provision of structures, guidance and support as well as the reinforcement of legal standards from the local government seem well in place.

The **North and Middle** regions of Vietnam work more with capture fish from the sea, if farming is done this happens in smaller units, for various products, many for the local market. There are significantly less companies with an EU number in these regions and in the North the easy border trade to China is very tempting. The bigger industries in these areas are export oriented, but there raw material to a high extend comes from outer Vietnam sources. The available raw material from local catch is, according to interview sources, constantly reducing. This means that boat owners see little security for returns in investing for IUU conform catch certificates.

Besides the missing export market orientation, for the smaller farms, the investment in only VietGAP standards appears difficult. Partly the capital is not available or difficult to access, partly also because the lease contracts for the land from the state are uncertain so an investment poses a risk.

For both, farm and boat owners, the know-how basis of understanding the requirements for sustainable implementation, be it missing education or systematic information policies, seem to be an issue.

6. Summary of Rekommandation

a. Since the EU is a relevant market for Vietnam the compliance with legal requirements is inevitable. Main issues are traceability (the role of middlemen) and IUU (catch certificates). The later seem not only to be difficult to comply with for Vietnam, so also negotiation with EU (may be on ASEAN level) may be a strategy to apply.

b. Voluntary standards pose an extra burden for the companies but they also bear market chances and chances for sustainable structured company management. The decision on which once to choose must be taken by market orientation and on customer base. The implementation of standards poses an investment decision and should be made based on expected return on investment.

c. Certain sustainability standards as MSC cannot be implemented without state support (deciding on TACs and issuing on licenses). Since neither sea caught volumes nor fish farm areas can be multiplied at will, the state has an interest to protect natural resources/wealth and support sustainable exploitation. In that sense the management of sea exploitation (a new law has just been issued) and the implementation of VietGAP, the later in close relation to similar international standards, is recommended.

d. Interviews showed that certain stakeholders feel, local legislation in the above context is not quite sufficiently supported by means for implementation/reinforcement or even provision for industry to support their adaptation. If this is the case this would lead to dual legal standards in the country (e.g. implemented in some areas, in others not). This must be avoided since it would confuse the local stakeholders as the international market players.

I. SESSION 1. OBJECTIVES, CONTENTS AND METHODOLOGY

1. Objectives

- Analyze and assess certifications and policies related to the application of seafood certifications required by the EU market

- Review and assess the status of some certifications which are currently applied for Vietnam's exported seafood

- Propose solutions to support Vietnam businesses to apply certifications to push up seafood export to the EU market

2. Research contents

- Review on certifications and policies related to the application of seafood certifications required by the EU market

- Review on the status of certifications applied for Vietnam's exported seafood

- Assessment of the status of certification application for seafood products in Vietnam currently

- Suggestion of appropriate solutions to support Vietnam businesses to apply certifications to push up seafood export to the EU market

3. Approach and Methodology

To do research, the experts use following methodologies:

- Overviewing and researching secondary documents and data: Study researches, reports from domestic and international agencies on seafood certifications set the EU to identify the background, the "research gap", creating the basis for determining the contents needed to be studied during the field trips.

- Expert method is applied in the field trips to supplement and adjust the overview results and experts' evaluation. The final information will be sorted and collected to complete the final report - the research output.

II. SESSION 2. RESEARCH RESULTS

1. Features of EU seafood market

1.1. The status and development orientation for aquaculture, fisheries capture and processing in the EU market (including seafood exports from EU in recent years, ...)

According to the EU market observatory EU production volume has been constantly increasing since 2012. Between 2012 and 2014, volume increased due to a 19% increase in catches and a 4% increase in aquaculture. This amounted to a total of 6,15 million tonnes in 2014, which was an increase of 15% compared with 2012, when it amounted to 5,34 million tonnes. Trade increased 2015, an increase of 6% from 2014. The per capita increase in consumption in EU lies around 2%/year.

Also an increase in own landings can be observed the self-sufficiency rate for seafood in EU is decreasing constantly indicating an interesting market for exporters.

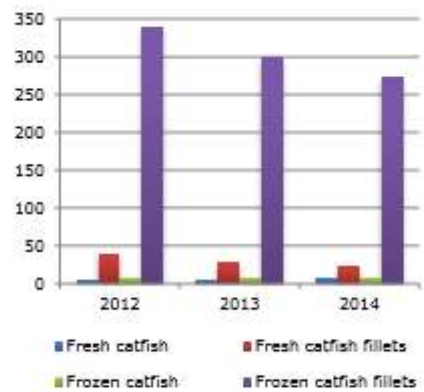
The value of the EU's aquaculture production also increased, reaching a 10-year peak of EUR 3,96 billion, which was EUR 75 million or 2% more than in 2013. The aquaculture is dominated by salmonids, seabass/seabream and mollusces.

Many of the larger species on EU fishing grounds have meanwhile received MSC, many of the farms are GlobalGAP or MSC certified.

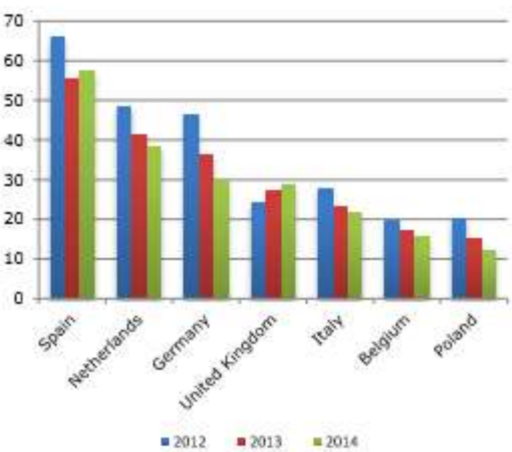
1.2. . The current status and orientation forecast for the development of EU seafood consumption market (including imports to the EU in recent years, ...).

Pangasius

General information and figures in relation to production and trade developments in Europe are provided in CBI Trade Statistics. This section provides you with more detailed statistics in relation to the trade and consumption of Pangasius in Europe. Although a few more countries produce Pangasius nowadays, virtually all Pangasius imported into Europe comes from Vietnam.



Source: Trademap



Source: Trademap

Figure 2: EU imports of catfish (pangasius) in 2012 – 2014 (million euro)

Figure 3: EU imports of frozen catfish fillets (pangasius) in 2012 – 2014 (million euro)

The import value of frozen Pangasius fillets into Europe decreased from €341 million in 2012 to €275 million in 2014; a loss of almost 20%. In the same period, the import volume also declined, but less severely (-9%). All major import markets imported less Pangasius, with the exception of the UK. The two most important reasons for the general decline are the negative perception of the product among certain buyers and consumers, and the competition with other white fish species, most importantly Alaska Pollack and in some markets also cod.

Tuna

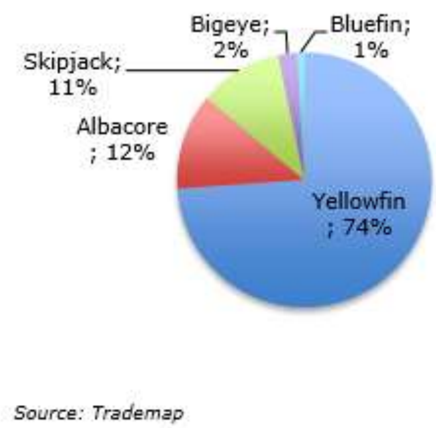
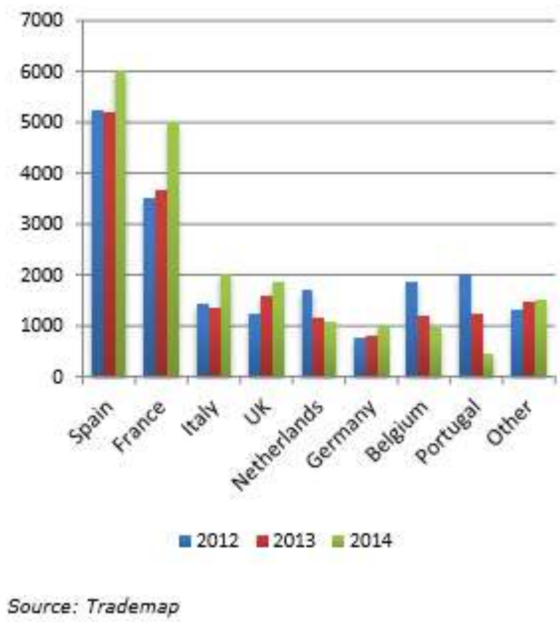


Figure 4: Imports of raw frozen tuna whole round (W/R) in metric thousand tons

Figure 5: Imports of raw frozen tuna whole round (W/R) per species, 2014

Tuna



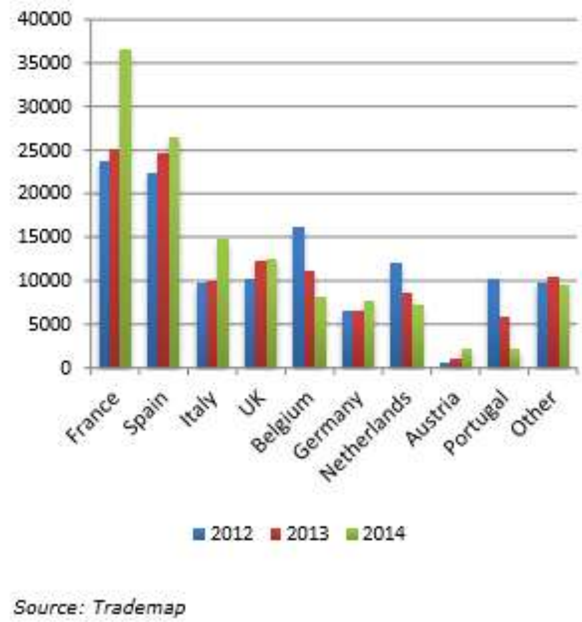


Figure 6: Main importers of raw frozen tuna fillets/steaks/loins in metric tons

Figure 7: Main importers of raw frozen tuna fillets/steaks/loins in 1,000 euro's

Although Figure 4 shows quite some fluctuation in imports of raw frozen tuna whole round, with a peak in 2013, the overall tuna market in Europe is rather stable, with little or no growth expected in the short term and yellowfin tuna expected to remain the most important species.

The total import value for yellowfin tuna was €273 million in 2014, which is less than the €320 million in 2013. The total import value for skipjack tuna was €65 million, which is also lower than in 2013 (€68 million).

Due to worldwide scarcity, tuna import prices increased in 2012. In 2013, there was more tuna available, but prices were still high that year. Since 2014 prices declined and in the first half of 2015, prices have even dropped below 2010 levels. The prices were even reported to be so low that catches are no longer profitable. For the coming years too, prices are expected to remain relatively low because of sufficient availability of raw material.

The main market for frozen tuna whole round in Europe is clearly southern Europe (Italy and Spain). In these countries, most of the tuna is processed into cans and jars.

Spain has been the main importer of yellowfin tuna whole round (around 85,000 tons and €170 million in 2014) for many years, followed by Italy (around 24,000 tons and €66 million in 2014). Most notably, the import quantities for yellowfin tuna whole round in Spain decreased by 7% between 2011 and 2014, as yellowfin tuna is a relatively expensive raw material.

Shrimp

It is also interesting to look at the supply of frozen shrimp in numbers. European imports from Developing Countries have been increasing in the past few years, but 2015 was a relatively stable year. In the four years, European imports from within Europe remained stable, whilst the import from 'Rest of world' does not play a role of importance.

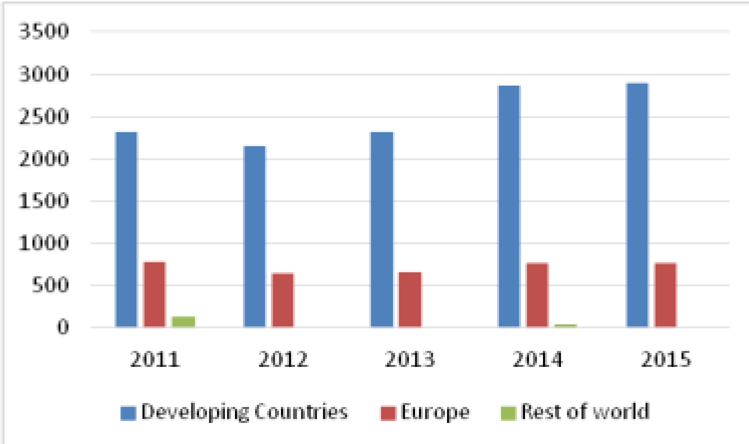


Figure 8: Shrimps import in leading markets, 2011-2015, in € million. Source: Trademap

Spain is the largest market for shrimps suppliers, followed by France (see Figure 2). The import of shrimps from Developing Countries in 2015 reached €905 million in Spain and €490 million in France. Supply from 'Rest of world' is very small, while also intra-European supply is limited.

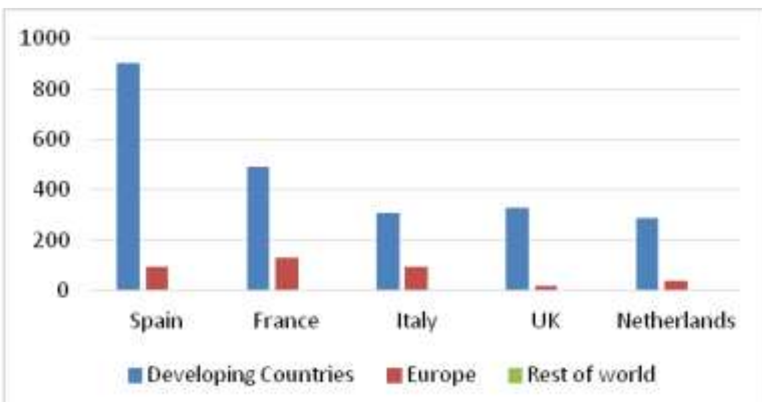


Figure 9: Leading European importing countries of shrimps, 2015, in € million

Source: Trademap

The shrimp import from Developing Countries totalled €2.9 billion in 2015. Main supplying Developing Countries are Ecuador, India, Argentina, Bangladesh and Vietnam. Together they represent 71% of imports from Developing Countries. The shrimps export of India to Europe grew fastest: 85% between 2011 and 2015.

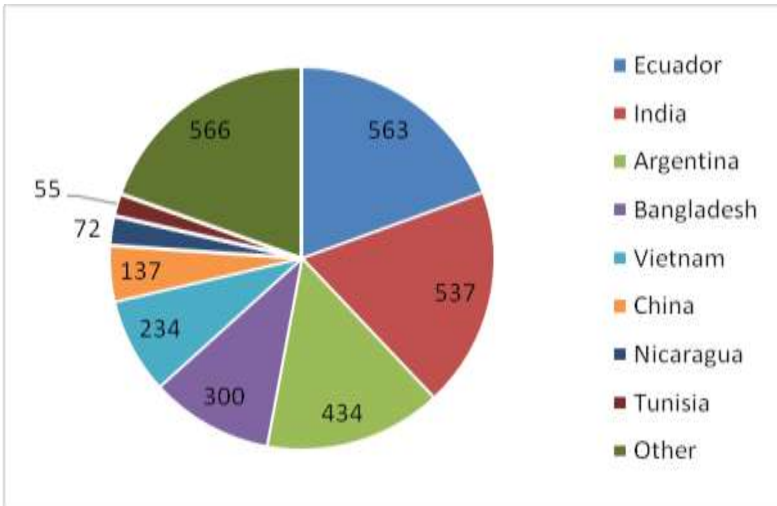


Figure 10: Leading Developing Country suppliers of shrimps, 2015, in € million. Source: Trademap

The import of shrimps from within Europe amounted to €775 million in 2015. The European supply is dominated by Belgium, Spain and the Netherlands. Together, these 3 countries account for 64% of intra-European supply. Although Belgium is the main European shrimps supplying country, the import value of Spain, the Netherlands and France has shown higher growth in the past four years. Denmark used to be one of the main suppliers, however the import decreased with 56% in four years' time. A last note: this intra-European flow involves a large share of re-exports of shrimps originally imported from Developing Countries. Spain, the Netherlands and Belgium are all re-exporters of shrimps.

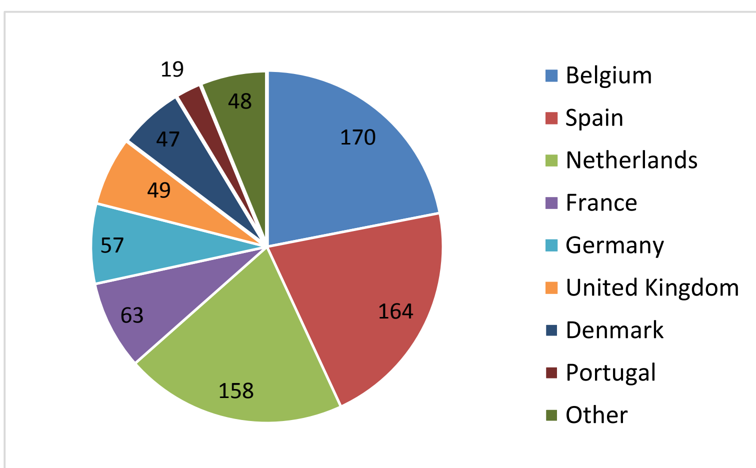


Figure 11: Leading suppliers of shrimps within Europe, 2015, in € million

1.3. Most-applied seafood certifications in the EU market

Seafood certifications in the EU market may be divided into 3 main categories as follows:

1.3.1. Compulsory certifications (”MUST” REQUIREMENTS)

There are following compulsory certifications.

Table 1: Compulsory certifications for seafood products exported to the EU

No	Requirement / Certification	Market
1	Approved country and establishment	EU
2	Traceability rules (since 12/2014)	EU
3	Catch certificate to combat illegal fishing	EU
4	Health certificate provides official guarantee	EU
5	Hygiene above all (HACCP)	EU
6	Contaminants – restricted and tested	EU
7	Microbiological contamination – prevention through hygiene measures	EU

The above are the basic legal requirements, preconditions to get to the EU market at all.

1.3.2. Fundamental certifications (GENERAL REQUIREMENTS)

The below certificates were developed for European retail. Meanwhile most wholesalers ask for it because with these certificates access nearly to all markets is easier.

Table 2: Fundamental certifications for seafood products exported to the EU

Nr	Certification scheme	Market	Product	Note
1	BRC - Food	EU (UK)	Fishery products	Retailers include sda, Tesco and Sainbury’s
2	IFS - Food	EU (Germany)	Fishery products	Retailers include Aldi, Lidl and Metro.
3	Global GAP Aquaculture	EU (Austria; Belgium; Germany; Spain; Finland; Hungary; Latvia; Holland; Sweden; Slovenia; UK)	Trout, shrimp, tilapia, pangasius	

1.3.3. Advanced certifications (REQUIREMENTS FOR NICHE MARKETS)

many of the below certificates, e.g. ASC and MSC would be considered in some countries in central Europe as fundamental while they are not so much asked for in Southern or Eastern Europe:

Nr	Certification scheme	Markets	Products	Note
1	ASC	EU (Austria; Germany; Denmark; Sweden; Belgium; Holland; UK; Finland; Poland; France; Italy; Spain; Portugal; Bulgaria; Cyprus; Czech; Estonia; Greece; Croatia; Hungary; Lithuania; Luxembourg; Latvia; Malta; Romania; Slovenia; Slovakia)	Four sets of ASC standards are currently complete: tilapia, pangasius, bivalves (mussels, clams, oysters and scallops), abalone, freshwater trout and salmon. The remaining two shrimp, seriola & cobia are pending finalisation. For Vietnam: Pangasius, Salmon	Supporter (fishery): Ahold (Holland); Anova (Holland); BirdsEye Iglo (UK, Ireland; Italy – 11 EU countries); ColruytGroup (Belgium; France); Costa (Germany); DKSH (Switzerland); EDEKA (Germany); Escal (France); Femeg (Germany); Findus Group (Switzerland); Frosta (Germany; France; Austria; Bungaria; Polen); Heiploeg (Holland); Kroger; LENK; Lidl (Germany; Belgium; Bulgaria; Czech; Denmark; France; Great Britain; Spain; Greece; Croatia; Ireland; Italy; Cyprus; Lithuania; Luxemburge;Hungary; Malta; Holland; Austria; Poland; Portugal; Romania; Slovenia; Slovakia; Serbia; Switzerland; Finland;Sweden;USA); Loblaw (Canada); MetroGroup (Germany;EU); Migros (Switzerland; France; Germany); Morubel (Holland); Nutreco (Holland); PicknPay; QUEENS (Holland); Royal Greenland (Greenland; Germany; Norway; Sweden; UK; Japan; Italy; Russia); Seafood Connection (Holland; Scandinavia; Poland; US; France; Italy; Greece; Portugal;); Sysco (US); Woolworths (South Africa);
2	MSC	EU (Austria; Germany; Denmark; Sweden; Belgium; Holland; UK; France; Italy; Spain; Portugal)	applies to wild-capture fisheries and some enhanced fisheries only.	
3	BAP	EU (UK, North Ireland, Belgium)	for shrimp hatcheries and farms, tilapia farms, channel catfish farms and processing facilities.	AD Delhaize (Belgium) Aldi U.K. Asda (UK and North Ireland) COOP Delhaize (Belgium) Delhaize City J. Sainsbury (UK and North Ireland) Metro Group (Germany;EU) Morrisons (UK) Red Market (Belgium) REWE (Germany) Shop ‘n Go Tesco (UK and North Ireland) Waitrose (UK and North Ireland)
4	FOS	EU (Austria; Germany;	Main products: tuna, shrimps and	

		Belgium; UK; France; Italy; Spain; Luxembourg)	prawns, mussels and salmon.	
5	Organic aquaculture	EU (Germany; Denmark; Sweden; Holland; UK; France)	Capture fisheries and Aquaculture	

Types of advanced certifications required by EU countries for seafood importers and producers are illustrated in the map below:

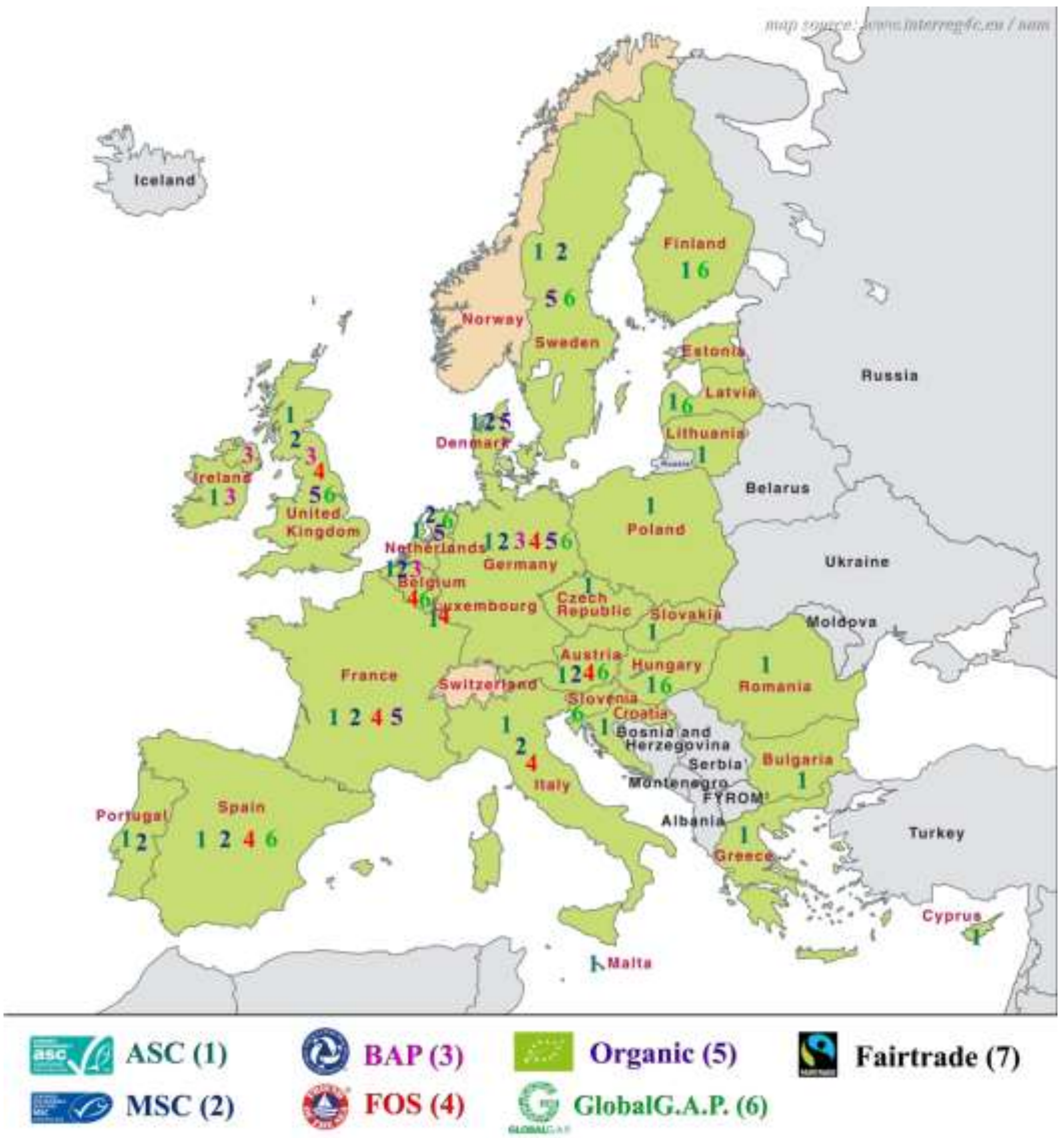


Figure 12: Types of popular certifications required by EU countries and territories.

The number of products which are certified with ASC in European vary between different countries, for example in Germany there is 801 products, in the Netherlands there is 789 products, as shown by the figure below.

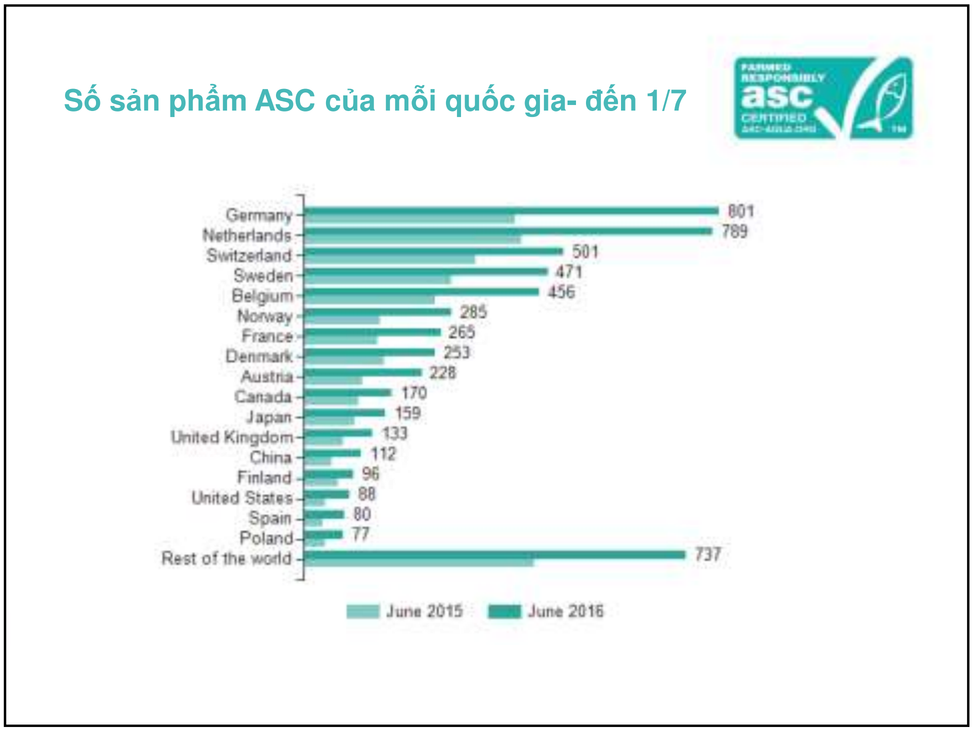


Figure 13: Number of ASC products in some EU countries and other countries around the world. Source: ASC (2016).

2. EU Policies and regulations relating to fisheries

2.1. General management policies

The latest and relevant documents include:

- Regulation No. 1169/2011 of the Commission and the EU Parliament dated Octorber 25, 2011;

- Regulation No. 1379/2013 of the Commission and the EU Parliament dated December 11, 2013 on the organization of the market for fisheries products.

Regarding import, the EU only allows to import products with the same safety standard as products produced in the EU, thus, harmonization between Vietnam food safety laws and the EU's will leverage the success of the products exported to Europe.

Exporters to European are facing 3 regulatory systems, these are:

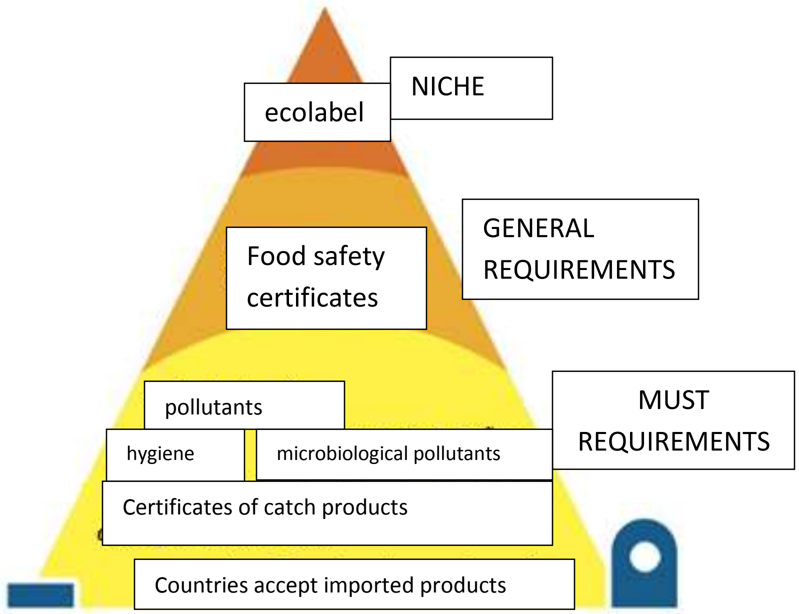


Figure 14: Requirements for fish products in the EU market[1]

Note:

A): The requirement of the market related to the law – compulsory to be able to penetrate the market, for example the legal requirements;

B) and C): the general or particular requirements set by consumers, especially large supermarket chains

EU's labeling requirements may ask to provide the name and address of the farm, or only the name of the production country. Requirements on traceability require specific address for monitoring. Farms in the EU are required to provide detailed statistics

The EU policies will have an impact on the development of sustainable aquaculture in the European countries. However, besides general policies for the whole EU, most countries have more detailed regulations and even broader or more special ones. In general, countries within the EU refer to mechanism of water management following sustainable aquaculture regulations of the EU.

*2.2. **EU's non-legal regulations***

Non-legal regulations relating to the import of seafood products to the EU are the requirements given by importers and buyers.

2.2.1. The role of social issues to international trade

EU requirements for social issues are basically driven by the International Labor Organization (ILO). Besides the social issues as stipulated in EU regulations such as regulation no. 1303/2013 about health problems, the disabled and the elderly like Vietnam Social Insurance Law (No. 58/2014/QH13 enacted from Octorber, 2014). Although, each country's laws contain provisions on those issues, they do not directly stipulate import requirements. The most relevant

[1] Nguồn CBI: http://www.cbi.eu/sites/default/files/study/buyer-requirements-europe-fish-seafood-2014.pdf

principles are: freedom of association establishment, collective bargaining ability, no forced labor; non-discrimination (gender, race) and child labor. Additional problems are mainly the requirements of corporate social responsibility (CSR): rights and obligations to improve capacity, skills, contracts for all workers including the temporary ones.

2.2.2. The legal framework of food safety in the EU

Regulations on food safety are established based on the top-down principle and the White Book on food safety issued in January, 2000 with following main provisions:

- Regulation No. 853/2004 – animal-originated food - problems related to the production facilities;

- Regulation No. 854/2004 - animal-originated food - issues related to state agencies which are responsible for management.

- Regulation No. 2074/2005 - amending Regulation No. 853/2004 and No. 854/2004.

These regulations include or accompany provisions on food safety, determine the minimum residue levels of contaminants. These processes have been completed and integrated in the EU's Decision No. 1169/2011 and No. 1379/2013 as mentioned in the above section.

2.2.3. Transparency requirements for the products exported to the EU market

According to the EU Regulation No. 1379/2013 on the requirements for imports from the third countries: there is no need to exactly identify farms (unless traceability), only the country of production needs to be mentioned, EU farms must be registered with full statistics. Factories in the EU need to be marked with EU number under the provisions of EC No. 853/2004 on animal-originated food and the provisions on SSOPs / HACCP, traceability.

2.2.4. Controlling imported products in Europe

The managing and monitoring agencies play an important role in the implementation of policies in both guidance and inspection. Staff from these agencies needs to be provided with intensive training, must have a good job description, along with the capacity and qualities as required.

The difference between Europe and Vietnam is that while Vietnam focuses on registration and profile control, EU allows the blockage of products and randomly checks at all stages in the process and sales chain. This makes the inspection and control difficult to be predicted. The EU inspection focusses on safety for the consumers and detection of the origin of the violation to determine the responsible entity in the value chain.

3. The current situation of the certification application in fisheries sector in Vietnam

3.1. Existing policies and orientations of Vietnam on the management and application of certifications

Vietnam government acknowledges that the efficiency and the trend of applying certifications have become popular and inevitable.

The sometimes-requested two-level safety policy would mean that the local producers in the EU would have a disadvantage (higher production costs), but also the consumer would choose the safer product. It would be harder for Third Countries to bring their product into the EU market, if their food safety level was lower.

However, that there are many types of certifications, and the adoption of certificates require large financial investment, leads to "confusion" of businesses in choosing certifications to apply, also with the EU producers and traders. On the other hand, some of these EU focussed certifications get adapted in other countries and, as a side effect, make exports to market outside EU also easier.

As shown in the tables and the map above the choice of voluntary standards is determined by the choice country and by the channels and segments the market is entered through.

Therefore, the management of companies and business support groups need to study the target markets, identify the potential of the businesses to select certification to apply. Businesses which have not had enough potential to refinance certifications may access more easy-going market.

Besides the already mentioned or linked CBI websites ITC – Standard Maps is a good orientation and helps to decide on different standards.

Currently, Vietnam is aiming to benchmark VietGAP with certain international certifications such as ASC, Global G.A.P and BAP. Some meetings regarding bend marking topics have been arranged with the involvement of Directorate of Fisheries and the certification agencies. In theory, this may be a good roadmap, however, in reality many challenges come up when benchmarking economic benefit compared to EU certified suppliers. Within the context of Vietnam, the government should focus on promoting “hard ware” such as infrastructure systems, irrigation systems used for aquaculture in preparation for certification. For deciding which certification should be applied and what “soft ware” (human capacity) should be prepared, let fishermen, farmers, and fisheries enterprises have their own final decisions.

3.2. The current status of the certification application in fisheries sector in Vietnam

Currently, there are over 30 types of certification applied in fisheries production, as well in fishing, processing, culturing, and supplying inputs such as seed, feed, drugs, chemicals and probiotic products. Among these certifications, just some are non voluntary (producers have to follow) such as e.g. VietGAP, IUU. Many of certifications are voluntary ones (such as MSC, ASC, BAP) that are issued by private sector and they are encouraged to be applied in producing countries to reach a sustainable seafood production. Certifications most applied in Vietnam are Global GAP, BAP/GAA, MSC, ASC and VietGAP.

According to WWF (2016), the proportion of products produced under voluntary certifications in Vietnam by April, 2016 as follows:

Table 3: Current status of key certifications in aquaculture production in Vietnam

Certification	Cultured shrimp	Cultured pangasius	Cultured tilapia	Other species
Global GAP	19 white-leg shrimp farms	18 producers/ facilities		39 farms
BAP/GAA	89,940 tons (14.02% of total	77,635 tons (7.06% of	976 tons (2)	No data available

	production of the species) (2)	total production of the species) (2)		
ASC	18,600 tons (2.96% of total production of the species) (1)	207,833 tons (18.9% of total production of the species) (1)	13.000 tons (1)	No data available
VietGAP	233 ha of white-leg shrimp farming area and 3 black tiger shrimp farms.	361 ha	3 farming units	1 snake-head fish farm, 1 black tiger prawn cooperative, 1 grouper fish cooperative, 1 eel farm and 1 red tilapia farm.

Source: WWF Vietnam (Huynh Quoc Tinh), 2016; Department of Aquaculture (2016) and Global GAP website:

https://database.globalgap.org/globalgap/search/SearchMain.faces

Data on farming area and number of aquaculture ponds, farms certified is not full and accurate because most seafood farms in Vietnam are small and certified farm owners have not reported to the state management agencies. The specific application of voluntary certifications in Vietnam is discussed below.

3.2.1. ASC certification

According to Bas Geerts (2016), the number of ASC-certified farms has been likely to increase rapidly from 2013 to 2016 for all cultured species such as shrimp, salmon, pangasius, tilapia, abalone , 2-valve molluscs. By July 01, 2016, there are 294 farms in 32 countries and territories around the world receiving ASC certification. The number of farms under assessment for ASC certification is ASC 122 (see figures below).

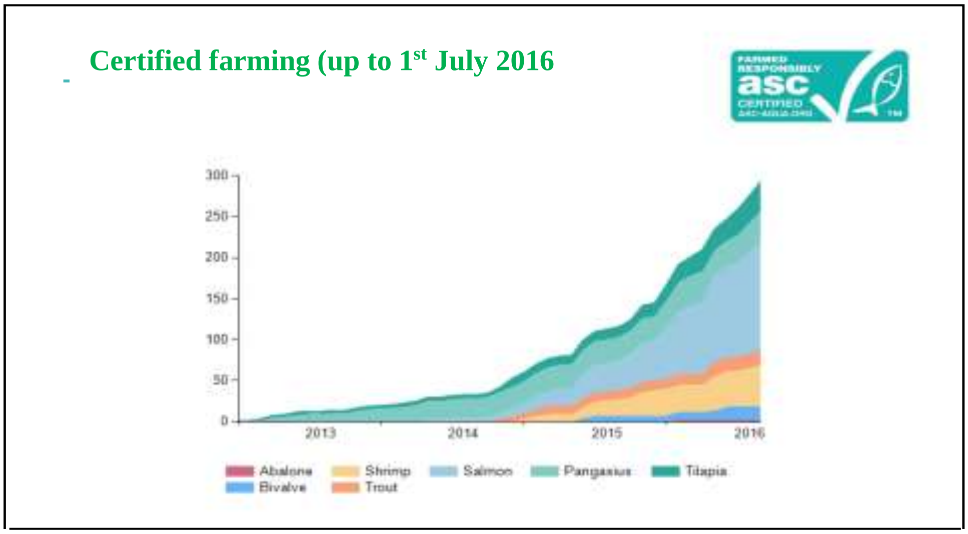


Figure 15: Number of ASC Certified – farms around the world by July 01, 2016. Source: Aquaculture Stewardship Council, 2016

Table 4: Number of farms applying ASC

Type of farming	Number of certified farms	Certified production (tons)	Farms under assessment	Number of auditors *
Abalone	2	500	1	1
Bivalve	16	8,573	20	4(1)
Pangasius	38	200,776	2	2
Salmon	133	567,861	47	5
Shrimp	52	70,773	35	2(2)
Tilapia	35	151,897	12	4
Trout	18	9,054	5	3(2)
Total	294	1,009,434	122	

*) Number of audit enterprises (under recognition process)

Source: Aquaculture Stewardship Council, 2016

In Viet Nam, to February 2014, 44 pangasius farming areas (corresponding 853.06 ha) have been certified with ASC. Generally, there have been still certain challenges for many farmers to apply ASC as their farms are small size. On the other hand, high application cost and insufficient infrastructure systems are a challenge when applying ASC in Viet Nam. It seems that the application of ASC is more difficult than other certifications like Global GAP, BAP or VietGAP. ASC is developed based on MSC and Global GAP; it is seen as very difficult for businesses, which are not labeled GlobalGAP or for small and medium seize.

Table 5: Number of farming units and area of cultured pangasius are certified with ASC in the period 2012-2016.

Contents	Granted in 2012	Granted in 2013	Granted in 2014	Granted in 2015	Granted in 2016	Total
Number of farrming units	1	25	13	9	11	55
The proportion (%)	1.82	45.45	23.64	16.36	20.00	100
ASC-certified area (ha)	13.3	409.5	215.8	129.7	224.3	992.5

3.2.2. Global GAP certification

In Vietnam, Global GAP certification has been granted to several pangasius, brackish water shrimp, and sea bass farms and hatcheries in the Mekong Delta, Vietnam's pangasius has been certified with Global GAP from April, 2009 (GlobalGAP Secretariat, 2016).

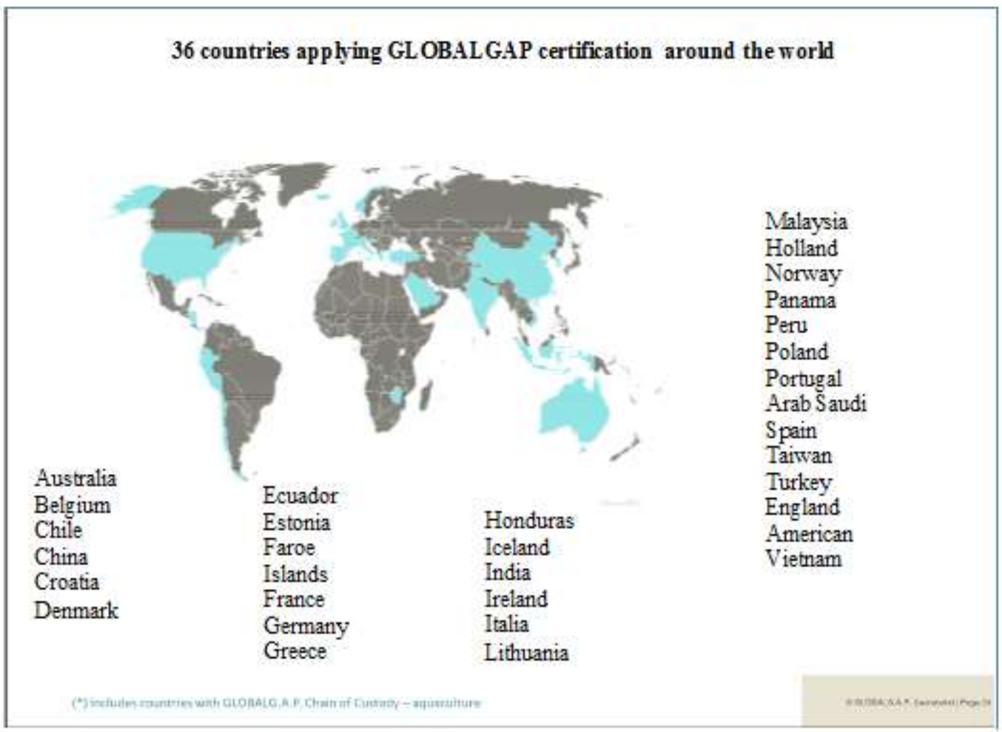


Figure 16: Number of countries and territories apply Global GAP. Source: Global GAP Secretariat (2016).

Global GAP certification is granted to a pangasius cooperative group in Tra Vinh province with the total area of 1.2 ha. This is the first small-scale farm certified with Global GAP in Vietnam.

In addition, about 39 businesses, farms, hatcheries have been operating following Global GAP's standards to be recognized with this certification in the time being.

3.2.3. BAP certification

BAP is, currently, the aquaculture certification which has a big impact on the market. According to Nguyen Thi Thanh Binh (2016), about 1,400 farming units worldwide has been certified with BAP and the total annual output of aquatic products certified with BAP is 2.1 million tons (detail see figure below).

According to Directorate of Fisheries (2015), Vietnam had 12 businesses receiving four-star BAP certification out of 67 general BAP, and Vietnam is the leading prawn provider worldwide in the number of prawn businesses granted four-star BAP certifications.

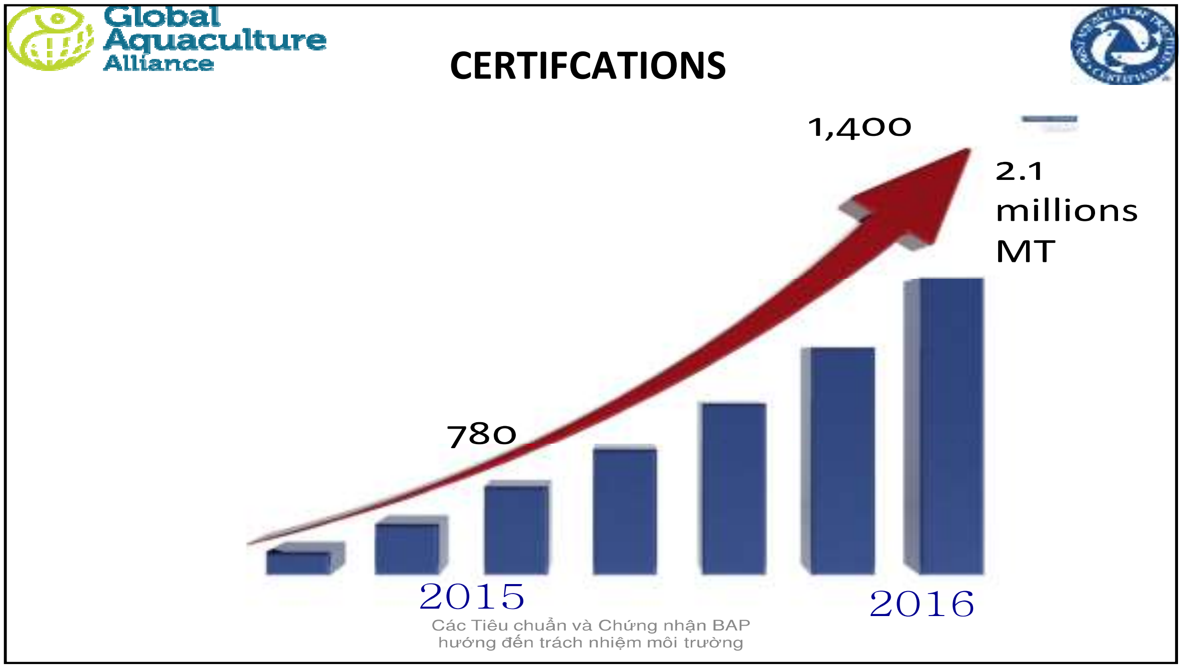


Figure 17: Number of BAP-certified units worldwide. Source: Nguyen Thi Thanh Binh (2016).

In recent years, Global Aquaculture Alliance (GAA)'consultants have conducted researches and surveys to apply and grant BAP for pangasius, prawn and tilapia. In Vietnam, 44 processing businesses, 34 farms, 5 feed mills and 7 shrimp hatcheries have been recognized by GAA by the end of 2014. By December, 2015, 89,940 tons of shrimp (14.02%), 77,635 tons of pangasius (7.06%) and 976 tons of tilapia were certified with BAP (Huynh Quoc Tinh, 2016)

Research results showed that farmers in the Mekong Delta are very interested in BAP certification. Farms interested in this certification usually have large area. Products of BAP shrimp farms have been easily accepted by processing businesses. Specifically, 100% of BAP farms supply shrimp directly to processing businesses while 80% of non-BAP farms have no choice but supply to traders.

According to general assessment, BAP is easier to implement than other certifications as BAP's standards are simple and suitable with production conditions as well as management in Vietnam.

The economic efficiency of BAP-certified businesses and farms is much higher than that of non-BAP certified businesses and farms for two reasons. Firstly, the selling price of certified shrimp is 11% higher than of non-certified ones. The second and particularly important reason is that thanks to receiving BAP, shrimp supplys directly to processing businesses becomes easier without middlemen.

According to calculations, the cost for shrimp farms to receive BAP certification worldwide is around $ 0.07/ kg. However, in Vietnam, farmers just spend less than 20% of this amount to be certified by BAP. Researchers say that receiving BAP certification is very good to farms. Despite high cost for seed purchasing, good application of science and technology helps farms reduce 43% of the feed cost compared to the same farming areas that not aplly BAP (Anh, 2015).

However, certains farmers still face several difficulties in applicating BAP certification due to the current use of drugs, bad wastewater treatment and not paying insurance premiums for workers. For these, it seems not to be easy follow the rules. Therefore to increase the number of BAP businesses and farms is not easy. Another problem is that it is necessary to increase human resources to fulfill the BAP standards. On average, each employee can manage 3 hectares if shrimp is fed in traditional way, but in order to meet the standards of BAP, it requires up to 3 employees for the same areaseize.

3.2.4. VietGAP certification

According to Department of Aquaculture's statistics, after 5-year implementation, 75 farming units nationwide received VietGAP certificate with the total area of 686 ha by Octorber 30, 2015. Among those VietGAP-certified units, there are 42 pangasius farms with the area of 361 ha, 23 white-leg shrimp farms with the area of 233 ha, 3 tiger prawn's, 2 tilaphia's, 1 snake-head fish's, 1 black tiger prawn cooperative, 1 grouper fish cooperative, 1 eel farm and 1 red tilapia farm.

According to research of Pham Thi Hong Van and et al (2013), households applying VietGAP still faced some difficulties as mentioned below:

- there is not enough land for waste treatment ponds available;
- pangasius farmers do not have land for sedimental ponds;
- farmers have difficulties in recording log books as required by VietGAP as they are not sufficiently educated;
- higher costs but lower profits as buyers have little interest and trust in certified products.
- There is no specific markets for VietGAP products;
- high costs for re-evaluation;
- lack of investment capital to develop production conditions and infrastructure;
- bank loan procedures are not appropriate;
- no container for waste and sewage sludge in accordance with regulations.
- Smaller households, after training, can not implement as planned because they do not understand the requirements and procedures. Guidance from technical staff is still needed;.

According to Pham Thi Hong Van and et al (2013) economically the VietGAP application shows benefits:

For pangasius:

Revenue and cost is different between VietGAP applying season and non-applying one. In terms of income, the average income of the two households who applied VietGAP is 1.120 million/ha and 1,829 million/ha, much higher than the average income of these two households before applying VietGAP with only 516 million/ha and 924 million/ha.;

This amount is also higher than the average income of VietGAP the other two households who are non-adopters (537 million/ha and 380 million/ha respectively).

For white-leg shrimp:

The **survival rate** of white-leg shrimp ponds applying VietGAP is generally supposed to be higher than the once without VietGAP. However at the time of the survey (2013) due to the disease, there were some ponds which applied VietGAP still have a lower survival rate than the one withour VietGAP.

The **feed conversion ratio** (FCR) of VietGAP ponds is lower that that of non-VietGAP ones, while the percentage for the cost of feed accounts for about 55-60% of the total cost.

The cost of **drugs and chemicals** for disease prevention and environmental remediation in VietGAP white-leg shrimp farms significantly decreased, but the cost of biological products increased. Overall, the average cost of drugs, chemicals and probiotics per 1 ton of VietGAP farms is lower that that of non VietGAP ones.

For black tiger shrimp:

According to the research results of Pham Thi Hong Van and et al (2013), for black tiger shrimp, the survival rate of VietGAP ponds is lower than non-VietGAP ones. However, according to interviewed farmers, shrimp cultured in both ponds with or without VietGAP are still suffered from disease and sometimes shrimp of VIETGAP farms has lower survival rate than that of non-VietGAP ones. For this reason the analysis can only give a rough indication.

From the analysis of economic efficiency of some models applying VietGAP above, Pham Thi Hong Van and et al (2013) also summarized the impact of the VietGAP application as follows:

+ Economic impact: Initially contribute to the aquaculture efficiency improvment (most households applying VietGAP agreed that income is increased, although by a small mount) because applying VietGAP helps to reduce loss in stocking and FCR; reduce the death rate due to disease, reduce the cost of drugs, chemicals, environmental treatment and remediation; provide fish and shrimp with better quality; as well as have better pond management.

+ Social impact: attracting more labors; reducing conflicts between ponds owners and workers; raising knowledge and awareness of aquaculture techniques, food safety and ecological safety; expanding social relations; reducing conflict with the surrounding community.

+ Impact on ecological environment: the ecological environment, both in the farming areas and their surroundings is improved; environmental awareness is increased; it is easer to follow the provisions of the State on the hygiene and environmental safety in aquaculture.

The study indicates, inspite of high investment a beneficial effect. The question still remains if the investment is not placed more efficiently if an internationally recognised label as GloablGAP can be achieved with it.

3.2.5. Other voluntary certifications

ISO 22000

ISO22000, an international standard, is issued by International Organization for Standardization with the aim to build the safety control system for food production and processing. This standard is received worldwide and in line with the global economic integration trend.

The objective of ISO 22000 is to help food processing businesses control hazards from culturing, fishing until the finished food used by consumers in order to ensure food safety.

When applying ISO 22000, businesses must ensure the implementation of prerequisite programs (GMP, SSOP ...) to minimize the hazards to food; have to build a control system including control procedures, supporting documents ....

BRC standard

BRC is the standard of British Retail Consortium. This standard is created to help retailers to meet the requirements of the law and protect consumers by providing the basic assessment of businesses who supply food for retailers.

BRC standard helps to control food supply chain from primary products such as fresh produce pack houses and slaughterhouses through to processed foods, canneries and ready to eat products. It also requires updating statutory requirements and information technology about the products so that businesses can timely response to changes and provide safe products for their consumers. Additionally, BRC helps to deal with the most concerned issue of customers today, that is product traceability.

After first published in 1998, BRC has been developed more and more. It, now, also involves international producers in the supply chain, satisfying the criteria of Food Safety Institute founded by CIES - food trade forum. The majority of retailers accept this standard like they did with other equivalent standards such as IFS, SQF & HACCP.

Today, BRC is widely applied around the world as a core system for all activities (retailers - producers). It is seen as a ticket to penetrate the market and a opportunity to demonstrate the business's commitment to food safety, good quality and legal products in a continuously improved environment.

IFS standard

International Food Standard IFS issued by Global Food Safety Initiative (GFSI) is a common food safety standard with a consistent evaluation system used to assess the quality and select the suppliers. This standard helps retailers ensure food safety and inspect the quality of each product.

IFS standard is applied to all food production businesses. This standard is voluntary and focuses on food safety management, quality management to produce products and services that meet the quality levels expected by your customers.

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3.3. The current status of the certification application in surveyed provinces

3.3.1. In Quang Ninh province

3.3.1.1. Character of the seafood industry

Catch methods:

Due to the characteristic of multi-species and wide distribution of marine resources in the waters of the Gulf of Tonkin, most of the fishing vessels in Quang Ninh conduct multi fishing. Only vessels conducting ocean squid fishing, mackerel and tuna gillnets, purse seine combined with light, squid trammel nets operate in offshore waters focussed on single species. The occupational structure of the capture fisheries in Quang Ninh includes 06 main groups: Trawls, gillnets (dagger tooth pike conger, horseshoe crab …); cast net; hooks and lines; fishery service and other fisheries.

Processing industry structure:

Quang Ninh has about 17 seafood processing establishments, however according to the report of Quang Ninh Department of Agriculture and Rural Development, the whole province currently has only 4 enterprises of frozen seafood processing for export including: Company of Seafood Import & Export II Quang Ninh, Son Hai Minh Son JSC, Phu Minh Hung Seafood JSC, Quang Ninh Seafood Import & Export JSC with a total refrigerating capacity of these companies being 100 tons/day and a total cold storage capacity being 2,000 tons. In addition, there are two companies producing high-quality processed seafood for the domestic consumption including: Dai Yen fish sauce JSC and Cai Rong fish sauce JSC. There are also several small seafood processing establishments of which traditional, handicraft, household-scale processing methods are currently applied for producing traditional products such as fish sauce, dried fish, dried squid, dried shrimp, fish meal.

Export orientation:

According to Quang Ninh Department of Agriculture and Rural Development (2014), the main export market of Quang Ninh is Asia, where China & Hong Kong account for 30%, the EU takes the 2nd place with more than 20%, Japan and Korea rank 3rd with more than 10% of the total provincial seafood export value. The US market, the Russian market and the ASEAN market (counted for 40% the total provincial seafood export value) are also reached by local enterprises however with a limited export production and value. In recent years, due to difficulties of the traditional market, companies have been trying to redirect the export to new markets. Change is a challenge for fishery enterprises in Quang Ninh because most of seafood processing establishments in Quang Ninh are applying out-of-date technology, along with a limited investment value so that the competitiveness of their products is not high.

The structure of seafood export products of Quang Ninh, frozen seafood accounted for the majority (60%) while dried products occupied a smaller proportion (20%). The group of fresh products made up only a small proportion of export value (such as tuna, fillets or whole fish of tilapia, whole fish of reef fish, whole [grouper and snapper] are exported to Japanese, EU, North America markets and mostly through unofficial cross-border trade, directly by sea transport to China).

General deficits:

In Quang Ninh province the local enterprises do not have enough raw materials for stable processing. Use of available capacities is only 20-35 % depending on the company. This is due to the fact that: aquaculture activities in the Northern region in general and in Quang Ninh in particular is seasonal, focussing mainly on the spring- summer time, the harvest concentrates in about June, July. The slow development of the offshore fishing fleet; poor organization of fishery logistic services; aquaculture not follow the planning in certain areas, limited infrastructure...

which affect the production effectiveness, the quality of environment and products; the inappropriate distribution of processing establishment along production route and material areas (concentrate mainly in Ha Long, Quang Yen and Van Don); enterprises also have to compete with China in the procurement of raw materials.

3.3.1.2. Status of implementation of legal and voluntary standards

a) In aquaculture

Quang Ninh has only adopted the VietGAP standard, and the certification of food safety evaluated and issued by the Sub-Department of Aquaculture. Currently, there is no international certification adopted for aquaculture in Quang Ninh.

For VietGAP standard, Quang Ninh province currently has 4 systems: (1) crab farming system in Mong Cai [2ha, adopted since 2012]; (2) household-scale shrimp farming system in Mong Cai [2ha, adopted since 2012]; (3) shrimp farming system in Quang Yen district [0.5 ha, adopted since 2013]; (4) marine fish farming system of Duc Thinh Cooperative in Dam Ha district [20cages, adopted since 2014]. Initially, the systems adopting VietGAP receive supports from the General Directorate of Fisheries (in form of partly input material and evaluation costs), then enterprises and farmers pay the cost for periodical evaluation by themselves. The two shrimp farming systems in Mong Cai which currently adopt VietGAP are tied to the “brand building for white-leg shrimp project” in Mong Cai.

Quang Ninh has promulgated several policies to support the adoption of VietGAP, some notable documents include:

- Decision 3262/2013/QD-UBND dated 28th November 2013 of Quang Ninh Provincial People's Committee on adoption of some preferential and supportive policies for investors in the high-tech agriculture zone in Quang Ninh;

- Decision 2009/QD-UBND dated 13th August 2012 of Quang Ninh Provincial People's Committee on interest rate support for development investment of agricultural product production and trade of in Quang Ninh in the period from 2012 to 2015.

However, there are still challenges in the adoption of VietGAP in Quang Ninh. Some notable related issues include:

- The infrastructure systems used for aquaculture in the region has been invested and upgraded but still not met the requirements prescribed by VietGAP.

- As land belongs government (government ownership), many farmers and enterprises found difficulties in applying certification as the range of time when they are allowed to use and manage the land is not long enough (just 20 – 50 years) to invest in sufficient infrastructure development that are necessary for certification application.

- The consumers’ awareness of using seafood products certified with VietGAP is still limited, which affects the encouragement of adoption of VietGAP, the expansion of seafood market certified with VietGAP.

- The majority of workforce in aquaculture has not participated in vocational training courses, the farming bases mainly on experiences. The number of people trained and propagandized about VietGAP, aquaculture safety is limited.

To promote the adoption of VietGAP, following recommendations are proposed:

- Encouraging the trade promotion to gain the markets' (domestic and export) trust and recognition to VietGAP.

- Solving difficulties in procedures of granting use right certificates of land, waters and the assets attached to aquaculture.

- Continue to develop pilot models for adoption of VietGAP in aquaculture. Or

- redefine the role of VietGAP as preparatory step to achieve internationally recognised standards (still educated staff will be prerequisite.

b) In capture fisheries

Regarding fishing management, there has been input management (controlling gear size, number of fishing boats, horse power….). Per the local statistic, since the beginning of 2016, Quang Ninh has boosted the registration, regular technical control and issuance of fishing licenses for fishermen. In the whole province, 70 fishing licenses have been newly issued, renewed; 181 fishing vessels have been checked for reissuing licenses, change of vessel owner, vessel transformation, and new registrations.

Similar to other provinces, fisheries management agencies in Quang Ninh are currently adopting Circular 50/2015/TT-BNN dated 30th December 2015 of the Ministry of Agriculture and Rural Development on the certification, verification of seafood catch. This Circular prescribes the order, procedures and contents for verifying fishery materials, certification and verification of commitment that fishery products originate from capture fisheries to be exported to markets where the certification is required (including the EU). In principle, all fishing vessels need to adopt the Circular 50/2015/TT-BNN, however currently, only vessels with products sold to export and processing enterprises are adopting (not yet applicable to almost vessels having products sold to the Chinese market or domestic consumption).

For voluntary certification, there has been no international certification adopted in capture fisheries.

c) In seafood processing and exporting

Almost all seafood processing and export enterprises in Quang Ninh have adopted only the certification for hygiene and food safety (HACCP). This is a mandatory certification applying to seafood export to the international market

For voluntary certificates, seafood export enterprises have been also adopting a number of certificates. Survey results of the two seafood processing and export enterprises illustrate that: the number of international voluntary certificates adopted by enterprises is not yet high. Some enterprises are considering towards the adoption of more voluntary certificates, however, in the opinion of enterprises, the seafood processing and export enterprises in the North are facing many difficulties in the adoption of these certificates due to the limited production capacity of enterprises (infrastructure, human resources have not met the requirements, unstable raw material sources, limited market...).

Table 6: Mandatory certifications are being adopted by some seafood processing and exporting enterprises in Quang Ninh.

Businesses	**Year of establishment**	**Certified year**		
		NAFIQAD 1	HACCP, SSOP and GMP	Export licence to US market (Certificate ofregisration US.FDA Registration. No 13608883548, Agent for FDA: Registrar Corp)
Business 1	1983	annual	2002	2015
Business 2	1989	annual	2000	X

Note: SSOP and GMP are relevant to HACCP;

Table 7: Voluntary certificates tend to be adopted by some seafood processing and export enterprises in Quang Ninh

Businesses	**Year of establishment**	**Year of starting adoption of certificate**		
		ISO 22000	BRC	HALAL
Business 1	1983	from 2016	2016*	2017**
Business 2	1989	from 2017		

*: Export of shrimp to UK market

**: Export of shrimp to Egyptian market

Source: Survey results

3.3.1.2. Assessment of advantages and difficulties in the certification application in Quang Ninh province

a) Advantages of adopting certificates in the production, trade and export

- For domestic certificates (HACCP, VietGAP...), there has been guidance of the authorities, so far the related documents, sampling procedures of shipments have been evaluated positively with many improvements (the procedures are faster and easier than before).

- Several enterprises and farmers' awareness of adopting certification in the fisheries sector was initially raised.

- When adopting certificates, the price, number of customers, number of export products, the image of products and enterprises are enhanced (this was clearly for the case of adopting HACCP). However, it is not similar to the case of adopting VietGAP (the impact on price and product image was not significant).

b) Difficulties in the production adopting certificates

In the aquaculture sector, there have been challenges in the adoption of VietGAP: the popularity of small-scale farming leads to difficulties in ensuring the compliance with VietGAP provisions; the evaluation cost is relatively high; the farmers and consumers' awareness of certified products need to be raised to promote the motivation of adopting certificate. In the coming time, the authorities need to apply measures and supports to "make" people realize the necessity of applying certificates in general and VietGAP in particular.

For the sector of fisheries processing and export, the adoption of certificates for exported fishery products faces the following difficulties: The majority of seafood processing and export enterprises in Quang Ninh is small-scale, whose export markets are few in number, and most of these markets do not have a high requirement on the certification application. On the other hand, the enterprises are facing many difficulties in maintaining the hygiene and safety conditions (due to the limited financial capacity, infrastructure, machinery and human resources). The procurement system of raw materials for processing and export enterprises in Quang Ninh consists mostly of resellers; some aquaculture ponds do not document and record the farming related information... these elements lead to difficulties and challenges to the traceability of fishery product in these farming areas.

In general, due to the limitation of natural conditions (the annual cold season is not favourable to aquaculture development, ...), relying on unofficial cross-border trade which affected heavily by the Chinese market, and the restriction on the "internal strength" of seafood processing and export enterprises Quang Ninh (including financial capacity, human resources, infrastructure...), the adoption of international voluntary standards faces many challenges (the interviewed enterprises evaluated that the adoption of voluntary certification was ineffective and there was not enough budget to maintain these certificates...). The results of field survey reflect that enterprises in the Northern region in general and in Quang Ninh in particular mainly adopted HACPP standard (mandatory certification), some enterprises have been adopting ISO.

c) Do enterprises, farmers wish to adopt the certification? In case of YES, which certificate should it be? Why?

- In the aquaculture sector, many enterprises and aquaculture households want to apply VietGAP. However, they still have difficulties (in infrastructure, finance ...); the community's awareness of certification in the fisheries sector is still limited;

- In the fishery processing sector, the wishes to adopt the certification are distinctive to each enterprise. Some large enterprises have the need to adopt certificates to improve the quality, enhance the image of products, in order to access certain international markets. However, many processing enterprises (especially small-scale enterprises) do not need to apply for certification because their export products primarily aim at unofficial cross-border market (e.g. the Chinese market...).

d) Does the local / sectoral management agencies support in the adoption of certification? In case of YES, what kind of support is it?

For aquaculture, there have been policies supporting aquaculture households in approaching VietGAP certification. The Decision 01/2012/QD-TTg of the Prime Minister and Circular 48/2012/TT-BNN were enacted to support in the application of VietGAP:

VietGAP registered establishments will be supported with

- 100% of baseline survey expenditure,

- 100% of training cost and

- 100% of cost for the 1st evaluation.

Quang Ninh Province will promulgate policies on: Development of concentrated production areas; Prioritized support in VietGAP application; implementation of review and adjustment of the current fisheries development planning; development orientation of the key species; promotion of technical advisory support.

In the sector of capture fisheries, currently there are policies:, replaces Circular 28; Decree 59/2005/ND-CP, Decree 14/2009/ND-CP supplementing Decree 59/2005/ND-CP; Decree 33/2010/ND-CP; Decree 53/2012/NDCP; Decree 89/2015/ND-CP; Circular 02/2006/TT-BTS; Circular 62/2008/TT-BNN.

For the field of food hygiene and safety, the key policies are as follows: Food Safety Law; Decree 38/2012/ND-CP; Circular 48/2013/TT-BNN; Circular No. 33/2015/TT-BNN; Circular 47; Circular 08/2016/TT-BNN; Joint Circular 13/2014/TTLT-BYT-BNNPTNT-BTC; Circular 51/2014/TT-BNN; Circular 31/2015/TT-BNN.

State agencies and associations also provide fishery processing and export enterprises with information on regulations and mandatory requirements arising from the import markets. Quang Ninh province also has the orientation to support enterprises for adopting certificates (10 million VND / Enterprise), however this activity cannot be implemented in practice due to enterprises cannot meet conditions to receive the support from the State.

e) Orientation of the local management agencies in the adoption of certification

Quang Ninh is currently implementing a pilot program on labelling the production label of the Department of Agro Forestry Fisheries Quality Assurance and the Project on value chain development (supports including freezers, conservation, provision of seeds, infrastructure renovation…). These are “temporary” solutions which currently implemented by the locality.

Quang Ninh tends to develop a provincial brand identity system, continue to promote the system, raise the awareness of certificates, adopted fisheries sector through a variety of forms and methods: television, billboards, and leaflets.

3.3.2. In Khanh Hoa province

3.3.2.1. Character of the seafood industry

According to statistics, Khanh Hoa has approximately 9,000 vessels including 5,000 vessels with the capacity of less than 20CV. Among these 5,000 vessels, only a few ones which supply raw seafood materials for processing and exporting must be certified mandatorily under Circular No. 50; the remaining vessels only supply seafood for domestic consumption, so they do not need to get certification. Other 1,200 offshore fishing vessels with the capacity of more than 90CV and 2,800 vessels with the capacity from 20CV to 90 CV are subject to be certified under Circular No. 50 due to supplying raw seafood materials for processing and exporting businesses. Per local capture managers participated in the interviews, the certifications for those vessels under Circular No. 50 are relatively effective and help to prevent IUU fishing as well as promote traceability enforcement for local captured seafood. However, there are still some constraints that need to be consolidated such as continue to instruct local fishermen in writing and recording log books following the forms in Circular No. 50 as well as avoid fishing in restricted areas and using illegal fishing gears.

There are about 40 companies operating in fisheries sector in Khanh Hoa province. Except for a few businesses like Hai Vuong, Hai Long … performing in all 3 activities from capture fisheries, aquaculture to processing, the remaining businesses only focus on processing caught fish for export. Recently, there are 2 types of certification applied in Khanh Hoa’s processing businesses.

Khanh Hoa has about 40 processing and exporting enterprises, thus, ability and capacity for seafood processing is easier than other provinces. The main problem is the lacks of safe raw seafood materials and direct or at least transparent links between processing businesses and producers to ensure the beneficial price for both parties.

3.3.2.2. Status of implementation of legal and voluntary standards

a) In aquaculture

Currently, there are only 3 voluntary certification schemes applied at three companies in aquaculture in Khanh Hoa province. They are Global GAP, ASC and VietGAP.

- Global GAP: Hoa Son’s fish hatchery under Hai Vuong Group was certified with Global GAP in 2014 for Oreochromis Niloticus.

- ASC: Nha Trang Seafoods – F17, a unit of Nha Trang Seaproduct Company, has given instructions for 1 farm in Cam Lam district to culture under ASC standards but this farm has yet to be certified.

- VietGAP: The farm of Mr. Yen in Cam Lam district received VietGAP certificate in 2014 for the area of 2 hectares. The certification term is 3 years; therefore, this farm must be reassessed by 2017.

Besides, the World Bank funded project Coastal Resources for Sustainable Development (*CRSD*) Project has also supported some models of shrimp farming for VietGAP certification but have yet to be certified. The CRSD project implemented 1 model in 2013, 7 models in 2014, 12 models in 2015 and 11 models in 2016. So, under the CRSD project, there are total 15.5 hectares following VietGAP but have not been certified yet.

It can be seen that a lot of farms have followed VietGAP from 2013 but they have not received the certificate. The reason is that there still exist both “hardware” and “software” difficulties in farming areas under VietGAP requirements. The “hardware” of both state owned and private owned infrastructure such as treatment ponds, irrigation and drainage channels of farming areas does not meet the requirements of VietGAP. The “software” difficulty is the awareness and technical capacity of farmers. Although the awareness of farmers in 7 areas selected to do farming under VietGAP by CRSD project has been improved, it is still difficult to encourage farmers to apply the certification. Due to traditional production habits and low awareness, farmers feel difficulties in log book recording. Despite getting instructions from project staff, logbooks recorded by farmers are not effective.

There is a number of policies related to support VietGAP implementation in Vietnam, such as Decision No. 3824 and Decision No. 4669[2]. Under those policies, VietGAP aquaculture practices have been initiated in Khanh Hoa and other provinces. However, the key difficulties that farmers have been facing with VietGAP certification are both hardware and software elements as discussed in the previous 3.2.2.1 section.

Besides that, the Decision No. 01/2012/QD-TTg of the Prime Minister and Circular No. 48/2012/TT-BNN were issued to provide guiding for farmers to apply VietGAP. However, local farmers are not willing to follow these policies due to the small number of farms following VietGAP and being certified with VietGAP. In other hand, farmers' greatest desire is to get loans to do farming, but there still lack practical policies issued to solve this problem.

b) In capture fisheries

Currently, fishing vessels in Khanh Hoa province have registered to be certified with compulsory certifications under Circular No. 50/2015/TT-BNNPTNT dated December 30, 2015 regulations on validation of catch certificates, statements. This Circular prescribes procedures

[2] Decision No. 3824/QĐ-BNN-TCTS dated September 06, 2014 providing regulations on Vietnamese Good Aquaculture Pratices and Decision No. 4669/QĐ-BNN-TCTS dated 28/10/ 2014 guiding VietGAP for pangasius catfish.

and contents to confirm and certify products originated from catch to export to markets where certifications are required (including the EU).

With developed tuna fishery, there are 2 voluntary certification schemes that vessels in Khanh Hoa province are oriented to receive. They are MSC certification through Fishery Improvement Projects (FIPs) for the tuna fishery and dolphin safe initiated by National Oceanic and Atmospheric Administration (NOAA) and Earth Island Institute (EII).

With the support of the WWF and the involvement of such partners as VINATUNA, VASEP, ICAFISH, local authorities, the Fishery Improvement Project (FIP) for Vietnamese yellowfin tuna exploitation started in 2013 with the completion of MSC preliminary assessment. The action plan for the improvement of Vietnamese yellowfin tuna was completed in early 2014. This plan mentions the need for tuna fishery improvement with the involvement of responsible parties as well as building the time frame to meet the MSC standard based on 3 main principles of MSC: (i) ssustainable fish stocks; (ii) minimizing environmental impact; (iii) effective management. Relevant agencies have set 54 objectives for implementing FIP for tuna fishery to achieve MSC certification in 2018. However, results of the annual monitoring and inspection show that only 20% of FIP objectives above is completed in 2016. This may lead to the delay in getting MSC certification and local tuna fishery may be certified with MSC certification far later than 2018.

Currently, the majority of seafood processing and exporting businesses in Khanh Hoa have applied EII’s dolphin safe to export to the Europe. However, the US market requires products to be certified with NOAA’s dolphin safe, not EII’s one. Thus, there are 2 dolphin safe certifications required by 2 different markets: EU and US (for the US market, canned products must be certified first)

From the facts above, we can see that, only processing businesses exporting to EU or US have been certified, and local ship owners are mostly trained on these certification. At Hon Ro fishing port, dolphin safe logo is hung around the port to disseminate fishermen about this certification. Captain training and certification dissemination are implemented by support agencies such as VASEP, WWF.

According to NOAA’s dolphin safe, the certificate for captain is of great importance. NOAA allows captains having English ability to learn online through NOAA’s website, then NOAA will list name of these captains on its website with the captains’ confirm that their vessels does not leave effect on dolphins.

3.3.2.3. Assessment of advantages and difficulties in the certification application in Khanh Hoa province

a) Advantages in culturing, doing business and exporting products under certifications’ requirements.

- Aquaculture products meet requirements of food safety, which builds a good reputation for farmers in the certified region.

- Farmers’ awareness of food safety, environmental protection (inside and surrounding the farm) and social responsibility has been enhanced.

- Management agencies find it easier and more convenient to manage farming operation as well as provide better support for the production.

- Businesses getting voluntary certification schemes have more opportunities to expand consumption markets, increase number of customers, improve products’ image, which helps the export become easier. Moreover, some demanding markets like EU or US only accept products of certified businesses.

b) Difficulties in culturing, doing business and exporting products under certifications’ requirements

- Awareness of producers is still limited, especially small-scale producers, due to production habit and lack of reports. They often have such questions as does VietGAP bring any benefit? Can the price of VietGAP-certified products be raised? Is it easier to sell VietGAP-certified products than non-VietGAP ones? If producers do not fully understand these issues, they will not voluntarily participate in the certification programs, especially VietGAP.

- Factories have faced a lot of difficulties in purchasing products due to lack of VietGAP-certified products (only 1 or 2 farms with a few hectares are certified). Businesses still have to buy non-certified materials to process; therefore, it is difficult to distinguish between certified and non-certified materials.

- Infrastructure in farming areas does not meet certifications’ requirement of environmental management and technical compliance;

- Fund for certification application in localities is not enough.

- Policies are impractical and difficult to implement. Despite VietGAP issued under Decision No. 3824/QD-BNN-TCTS is much better and more pratical, farmers still have yet to receive much support as well as loans to culture following VietGAP due to economic difficulty.

- There are so many types of certifications, especially voluntary ones. This makes businesses, producers and managers find it difficult to access to these certifications. Certifications are technical requirements needed to be met in order to reach the sustainable development; therefore, the cost to get and maintain certifications is quite high. For example, to maintain dolphin safe, businesses often spend about US$7,000 for a factory per year, of which about US$ 2,500 is the annual fee, the rest is the cost for regular auditing and monitoring, or to BRC, this amount is about US$ 5,000 per year.

In addition, certifications are independent and accepted by different markets, so businesses that want to export to which market must have certifications required by that market. For example, the Europe often require such certifications as ASC, BRC, EII’s dolphin safe; the United States often requires Global GAP, dolphin safe granted by NOAA and USDC; or Middle East market often accepts Halal certification. Due to many certifications proposed by different markets, seafood exporting enterprises can own more than 10 certificates. Thus, the budget that they must spend to maintain these certifications annually is significantly high.

These costs include the training cost for staff to manage under certifications, and the assessment cost. According to businesses, in order to obtain certifications, they must increase the number of indirect staff, leading to increase cost for employee payment and management.

c) Do businesses/ producers wish to get certified? If yes, what kind of certification? Why?

- Most of the seafood processing and exporting businesses have been certified with compulsory and voluntary certifications due to requirements of customers and importers. In the future, which voluntary certifications businesses will apply depends on the requirements of their target market and customers.

- Most of small-scale producing units like fish or shrimp farming households have not received any certification. Some units wish to be certified to sell more products but they lack information about certifications. They are mainly interested in certifications that are widely accepted and help to enhance products' competitiveness in the market.

d) Does local authorities/ sector support businesses and farmers in certification application? If yes, what's support?

In aquaculture: the Government has issued policies to instruct and support farmers to get VietGAP certification. For voluntary certifications, state agencies and associations mainly support processing and exporting businesses in the form of providing information about new regulations and requirements of import markets. For example, after receiving the notice that all seafood products exported to the US must be certified with dolphin safe at the request of U.S Department of Commerce, management agencies like NAFIQAD and associations including VASEP, VINATUNA will notice, disseminate and provide information to businesses so that they can export their products to the US market.

- Support from the Government (through MARD and D-FISH): Decision No. 01/2012 /QD-TTg of the Prime Minister and Circular No. 48/2012/TT-BNN provide support for VietGAP application. Specifically, farming units registering to culture under VietGAP will be supported 100% of the cost for the baseline survey, training and the first assessment.

- The authority in Khanh Hoa province has been developing specific policies to support local farmers based on Decision No. 01/2012/QD-TTg of the Prime Minister: the local authority is expected to provide seed, feed and support approximately 100 million VND for each farm complying and being certified with any Good Agricultural Practices like VietGAP, ASC or other sustainable certifications. The policy is planned to be issued under the resolution of the Provincial People's Council, then the Provincial People's Council will make the implementation decision. However, the policy has been still discussed and has yet to be issued.

e) Orientation of local authority in certification application.

- Encourage farms and businesses to comply with and apply certifications to produce quality products for processing for domestic consumption and export (If local facilities can supply clean and quality materials, processing busineses will not have to purchase materials from other localities)

- Develop clean material production areas under certification: encourage investment in these farming areas and must comply with technical and environmental management requirements because concentrated farming areas often require high technology and investment (usually intensive or super-intensive farming).

(i) Compulsory certifications include HACCP (Hazard Analysis and Critical Control Points) issued by National Agro-Forestry-Fisheries Quality Assurance Department – Branch 3 (NAFIQAD 3), national technical regulation QCVN 02-02:2009/BNNPTNT on Fisheries food business operators – HACCP based program for quality and safrty assurance, national technical regulation QCVN 02-01:2009/BNNPTNT on fisheries food business operators – general conditions for food safety and food safety certificate issued by National Agro-Forestry-Fisheries Quality Assurance Department – Central Region Authority (NAFIQAD – CRA). In general, almost businesses in Khanh Hoa which export seafood to Europe have received such basic certificates as HACCP, EU code and compulsory certifications issued by NAFIQAD 3 and NAFIQAD – CRA.

(ii) Voluntary certification schemes include BRC, dolphin safe, IFS, ISO, GlobalGAP and etc. Currently, almost 40 businesses in Khanh Hoa province are recognized by BRC and 6 receive dolphin safe certificate granted by EII.

(iii) Other certifications that businesses are aiming to get and are under assessment consist of MSC, SA 8000, BRC, dolphin safe etc. Per businesses' opinion, it is very difficult to get MSC and SA 8000 certificate because their requirements are so high and related to many factors in the chain like MSC certificate for tuna fishery or the increase in personnel as well as the rise of business management cost.

Table 8: Compulsory and voluntary certifications applied in some seafood processing businesses in Khanh Hoa province

Businesses	**Year of establishment**	**Certified year**											
		NAFIQAD 3	HACCP	BRC	ISO	Global GAP	Dolphin safe	MSC	IFS	ASC	USDC	Halal	Others
Business 1	1997	annual	1997	2006	2008	2014	annual	2016 (MSC CoC)	2013		2010	2014	Asia Kosher

Business 2	1999		2015		2015								
Business 3	2002		2002	2009			2009		2009			2012	
Business 4	2004	x	x	x	x				x				

Source: Website of the enterprises and interview results

Commonly, seafood enterprises aim to be certified due to requirements from their customers (for voluntary certifications) and from management agencies in fisheries sector (for compulsory certifications such as Circular No. 50[3] or national technical regulations QCVN 02-02:2009/BNNPTNT or QCVN 02-01:2009/ BNNPTNT).

Normally, customers only accept seafood products that are certified with voluntary certifications they require. Therefore, an exporting business often has 5 or 6 certificates. Large businesses even own 10 ones.

3.3.3. In Ben Tre province

3.3.2.1. Character of the seafood industry

a) Aquaculture

According to Ben Tre Department of Agriculture and Rural Development, main cultured species such as shrimp, pangasius, clams, oysters have strongly developed. In the past 5 years, the aquaculture area has increased from 42,407 ha to 46,800 ha, the estimated output is 251,500 tons (increase by 49%), estimated value is 7,904 billion VND (increase by 52.03%). In the period 2010-2015, white-leg shrimp farming has significantly increased from 528 ha in 2010 to 7,500 ha in 2015, establishing concentrated intensive farming areas, enhancing farmers' technical skills, providing high quality products for processing and exporting. Molluscs aquaculture has stably developed under co-management manner. Giant freshwater prawn farming has strongly developed. The new form of farming method (semi-intensive) together with traditional methods like culturing in ponds, culturing with rice has contributed to improve the efficiency of land use as well as increase farmers' income. According to the tentative plan, by 2020, the aquaculture area in Ben Tre will be 46,000 to 47,000 ha, including 8,000-10,000 ha of intensive farming with the output of 250,000-300,000 tons contributing from key species such as black tiger shrimp, white-leg shrimp, oysters, pangasius and giant freshwater prawn.

b). Capture fisheries

[3] Circular No. 50/2015/TT-BNNPTNT dated December 30, 2015 issued regulations on validation of catch certificates, statements (aim to meet requirements of IUU)

By Septemebr, 2016, Ben Tre has 3,768 vessels including 1,850 offshore fishing vessels (with the capacity of more than 90 CV) and 3 main fishing ports. The average fishing output is more than 3,000 tons per year with main species like squid, octopus, crab, fish. Fishing output in 2015 was estimated at 165,00 tons, increase by 21.6% compared to 2010 and the 2015 value was estimated at 5386 billion, increase by 43.8% against 2010. Particularly, in 2015, fishermen in Ben Tre built and upgraded hundreds of vessels, getting the highest growth rate among 29 coastal provinces. According to plan, by 2020, Ben Tre will have the total of 5,000 vessels including 2,000 offshore fishing vessels and the fishing output will remain stable level at 160,000 tons per year.

c) Seafood processing enterprises

The whole province of Ben Tre has 13 local seafood plants which are permitted to process exported seafood, and all 13 plants have met standards on EU seafood exports. The main products of these plants are catfish, clams, frozen shrimp, and a number of other frozen seafood but this accounts for a small portion. Also, in Ben Tre, there are 149 material purchasing, processing plants for domestic consumption, including 75 seafood material purchasing agencies. The output of processed seafood products rose from 23,400 tons in 2010 to 44,500 tons in 2015. The export value increased from 49.7 million USD in 2010 to 62.5 million USD in 2014. Seafood Products from Ben Tre has been exported to 40 countries and regions such as Japan, America, Spain, Portugal, England, France, Belgium, Malta, Italy, the Netherlands, Germany, Mexico, Canada, Cuba, Egypt .. . In particular, the main export market is still Japan, US, EU.

3.3.3.2. Statues of implementation of legal and voluntary standards

a) In aquaculture

Currently, there are only 5 voluntary certifications applied in aquaculture in Ben Tre, they are Global G.A.P, ASC, BAP, VietGAP (compulsory for all pangasius farms from early 2017) and MSC.

Global GAP: Some big farms (pangasius and shrimp) have applied Global G.A.P such as AQUATEX's pangasius farm, HHFISH's pangasius farm, FAQUIMEX's shrimp farm. However, this certificate expires, HHFISH and FAQUIMEX have not registered for reassessment due to inefficient performance.

- ASC: This is the most-applied certification in aquaculture in Ben Tre. A lot of big enterprises in Ben Tre have certified with this certification such as AQUATEX, HHFISH (pangasius farm) and FAQUIMEX (shrimp farm).

- BAP: FAQUIMEX's farm are applying and planning to register for assessment in 2017.

- VietGAP: Presently the number of farms applying VietGAP is quite small. Ben Tre is developing some VietGAP models and the province will support farms with the cost for the first assessment and a part of training and consulting cost.

Farms do not apply VietGAP because foreign markets do not require this certification. Pangasius farms only apply VietGAP if they do not apply any certification among the 3 certifications above because under Decree No. 36/2014/CP and Decision No. 2494/QĐ-BNN-

TCTS of Ministry of Agriculture and Rural Development (MARD) dated 27 July, 2015, since 1 January, 2017, all pangasius must apply 1 out of 4 certifications (VietGAP, Global GAP, BAP, ASC). Farms which get 1 out of 3 international certifications above have no demand to apply VietGAP.

Per Decree No. 36/2014/CP, since 1 January, 2016, all pangasius farms and enterprises have to culture following VietGAP principles. However, by the end of 2015, in some provinces, planning schemes of pangasius farming and processing area were not completed, infrastructure such as irrigation, drainage channels of farming areas did not meet requirements of VietGAP and procedures on grant certificates of land use rights and land-attached assets ownership was troublesome. This affects the application of VietGAP. Therefore, MARD decided to change the deadline of applying VietGAP and other equivalent certifications for pangasius farms to 1 January, 2017.

- MSC: Ben Tre is the only province nationwide whose clam farming area is certified with MSC. MSC started to be applied in 2017 and granted for Ben Tre's clam area in 2009. At present, the area of MSC-certified clam area is 7,300 ha. WWF in Vietnam supported Ben Tre to pay the first assessment fee and consultant fee before the first assessment. The fee of subsequent assessments is shared by management cooperatives of clam fields. At the moment, these cooperatives are collecting about 200 VND per 1 kilo of clam to create fund to pay the MSC assessment and granting fee. The provincial authorities always provide legal assistance such as facilitating the license granting (license of land use rights and land-attached assets ...), providing information on the provisions and warning of drought, saltwater intrusion. Sub-department of Agro-Forestry-Fisheries Quality Assurance periodically takes the sample every 2 months to inspect the criteria on food safety in accordance with the State's Sanitation Monitoring Program for Bivalve Molluscs Production areas.

Beside MSC, Vietnam Center for Technology Transfer, Service and Development of Agro-Fishery Community with the support of the Sustainable Fisheries Partnership (SFP) has been implementing FTP program to improve Ben Tre's trawlers following IFFO standard, Also, since 2017 with the support of OXFAM, International Collaborating Center for Aquaculture and Fisheries Sustainability (ICAFIS) will cooperate with Vietnam Center for Technology Transfer, Service and Development of Agro-Fishery Community to build a chain of clam and shrimp in some provinces in the Mekong River Delta, including Ben Tre.

Table 9: Certified aquaculture area in Ben Tre

Content	**ASC**	**GLOBAL G.A.P.**	**BAP**	**VIET GAP**	**MSC**
Certified aquaculture area (ha)	44.06	98.3	16.3	42.8	7,300

Source: Ben Tre Sub-Department of Fishery *b) In fishing capture*

Compulsory certifications

Capture fisheries vessels in Ben Tre must apply 2 compulsory certifications below:

+ Certification for catch materials not violating regulations on Illegal, Unreported, and Unregulated Fishing (IUU).

Raw seafood materials from fishing vessels in Ben Tre which are used for processing to export to the EU market must be certified with IUU under Circular No. 50/2015/TT-BNN of MARD dated 30 December, 2015 on providing regulations of certifying captured fisheries. This Circular prescribes the order, procedures and contents for verifying fishery materials, certification and verification of commitment that fishery products are originated from capture fisheries to be exported to markets where the certification is required.

Currently, after many years of inspecting and granting IUU, the granting of this certification has gone smoothly.

+ Certification of food safety for fishing vessels and fishing ports:

Under Circular No. 45/2014/TT-BNNPTNT of MARD dated 3 December, 2014 providing for the inspection of agricultural material production/ trading establishments and inspection, certification of safety conditions for agro-forestry-fishery products, all fishing vessels with the capacity of 90 CV onward and fishing ports, fisheries collecting agencies, materials-chemicals-feed stores must be inspected and granted certification of food safety before operation.

Inspecting and granting certification for fishing vessels and fishing ports in Ben Tre has been just implemented since 2015. In fact, the number of vessels getting certification of food safety is not high. All 3 fishing ports in Ben Tre have received certification of food safety. However, none of fisheries collecting agencies and materials-chemicals-feed stores has been granted this certification. Fishermen and facilities are not interested in registering to get this certification due to following reasons:

The people's awareness of food safety in fisheries production and trading remains limited, the low level of technical skill makes fishermen not interested in recording log books.

There is no difference between the fisheries price of food safety - certified vessels and that of non-certified ones.

The number of staff of Fisheries Sub-Department conducting the inspection is not enough, the fee of food safety assessment for vessels, fisheries collecting agencies and materials-chemicals-feed stores is quite expensive (the fee of the first assessment is more than 3.5 million

VND, the periodic inspection fee is 1.5 million VND for vessels having the revenue of more than 100 million VND per month.

The provincial management agencies have not sanctioned vessels or facilities which have not received certification of food safety.

Voluntary certifications: Currently, fishing facilities in Ben Tre have not applied voluntary certifications.

c) In seafood processing enterprises

There are two forms of certification that are being applied in the export processing enterprises in Ben Tre:

Conpulsory certification

All 13 seafood processing plants are reaching food safety qualified certification in accordance with Vietnam Regulation (including NTR 02-02: 2009 / BNNPTNT of seafood producing agencies - The quality assurance and food safety programme based on HACCP principles, NTR 02-01: 2009 / BNNPTNT of seafood producing agencies - General conditions to ensure food safety and standards for each specific type of food) by NAFIQAD. These plants are assessed regularly by NAFIQAD by procedure and frequency according to the provisions of Circular 48/2013 / TT-BNN dated 12/11 / 2013 of Minister of Agriculture and Rural Development for checking and certifying food safety in seafood exports.

Per Circular 45/2014 / TT-BNN, the material purchasing, seafood processing plants for domestic consumption must be assessed by Ben Tr Agro-Forestry-Fisheries Quality Assurance Department to be certified eligible for food safety. However, due to human resource and infrastructure constraints, the Department could only assess the production condition in material purchasing agencies, not yet the seafood processing plants and the penalty for agencies who have not received certification was not yet implemented. However, with funding from the project FSPSII, the Department has supported a number of material purchasing and processing agencies to establish and implement the GMP, SSOP programme according to the National Technical Regulation QCVN 02- 10: 2009 / BNNPTNT about purchasing seafood agencies - conditions to ensure food safety.

Voluntary certification

Seafood processing enterprises are applying international standards voluntarily such as BRC, IFS, ISO, GLOBALGAP, HALAL, MSC, ... as requested by clients. Many factories are currently having nearly a dozen various certificates, costing money and human resource in applying and being assessed to be granted this certification.

Table 10: Compulsory and Vonluntary Certification in some seafood processing, exporting enterprises in Ben Tre

Enterprises	**Year of establishment**	**Year of granting certification**										
		QCKT VN	BRC	HALAL	IFS	ISO 9000	ASC	GLOBAL GAP	MSC	VIET GAP	BAP	Others
Enterprise No 1	1997	Yearly basis	2008	2007	2014	2009	2012	2014	2013	2015		
Enterprise No 2	1995	Yearly basis	x	x	x	x			x			ISO 14000, SEADES, WALMART
Enterprise No 3	2007	Yearly basis	x				x		x		x (stoped)	
Enterprise No 4	2011	Yearly basis	2012	2011	2012					2015		ISO 22000

Source: Websites of enterprises and interview results

Enterprises engage in certification when under demand of the market (HALAL, IUU) or from customers.

d) Evaluation of certification adoption in the locality

Strength:

The large companies have good understanding and knowledge of certification schemes (mandatory and voluntary), they have a sense of compliance with the requirements of these standards.

Awareness of the processing, manufacturing, trading, procuring, farming establishments of the adoption of sustainability standards is increasing.

There are instructions or supports from State management agencies regarding to the compulsory certification (e.g the support for the initial evaluation fee for VietGAP, consulting support in developing GMP, SSOP for facilities procuring, pre-processing, training contents of mandatory standards for fishing vessels, facilities...)

Weakness:

Human resource of fishery facilities as well as State agencies for the management of the implementation standard adoption is still limited, in which the human resource of aquatic facilities fluctuates much.

People’s awareness of ensuring the food safety in the fishery production, business remains limited. Farming facilities’ understanding about the law, market requirements and sustainability standards is also restricted. The fishermen's qualification is not high so they not usually document and record the fishing in to the provided forms.

Most of the establishments are short of capital, fund for the application and adoption of standards.

Opportunities:

For producers:

Aquaculture products which ensure the food safety will make the reputation for farmers, processing companies.

As has been certified by the voluntary certification, the seller will be able to expand the consumption market, increase the number of clients and the trust in products, the export of products will get easier. Many markets have strict or special requirements, so companies must have the certification to sell products, e.g. the EU, US, Middle East market

The price of certified products will be higher (e.g. certified with ASC, GlobalGAP, BAP some years ago)

The product traceability will be easier, thus it is easier in determining the production stage causing mistake to fix.

For State management agencies:

Producers' awareness of the food safety, environmental protection and social responsibility is enhanced.

The management of aquaculture, capture fisheries, processing becomes more convenient, which facilitates the production better.

The product traceability is easier, which facilitates the State management.

Challenges:

For producers:

The evaluation, certification cost and management costs of facilities to implement certificates are still relatively high, which leads to higher product prices.

The prices for products with voluntary certification have a little difference: The price of raw materials sold by fishing vessels with and without food safety certification are not much different, the prices of products certified with ASC, GlobalGAP, BAP, IFS, BRC… in recent years rarely have a difference.

The evaluation cost for food safety for fishing vessels, raw material procurement facilities, agencies trading materials, chemicals, feeds is currently relatively high (the cost for the 1st evaluation is above 3.5 million VND, the cost for periodic control is 1.5 million VND for fishing vessels with an revenue of above 100 million VND / month).

Producers' awareness is still limited, especially farmers, small-scale farming households due to the habit of small farming, no use of log-book; the qualification of fishermen and aquaculture famers are generally low.

There are currently too many certification schemes, especially voluntary certification. A certification scheme exists independently from the other, and is usually accepted by certain markets. Thus, should a company tend to export its products to a market, it must acquire the correspondent certificates for that market, e.g. the EU market usually requires ASC, BRC, Dolphin safe (by EII) standards… US market requires GlobalGAP, Dolphin safe (by NOAA)… while the Middle East market requires Halal certification. Due to the large amount of certification schemes and characteristics of different markets, an export company may have to apply for several certificates at the same time. This makes companies stay under the pressure of high demand on expenditures, human resources, time for application and maintenance of certification.

Except the pangasius aquaculture, the aquaculture of other species such as black tiger shrimp, white leg shrimp is… mostly small-scale; besides, raw material procurement facilities have various scales and stages.

For State management agencies

Lack of financial support for the adoption of certification in the locality.

Human resources for performing the control of specialized management agencies are limited in both quantity and the knowledge, skills.

Enacted policies: There are still many difficulties in the implementation of policies and many policies were not able to be implemented in practice, such as the VietGAP standard - promulgated under Decision 3824 - was better and more consistent with reality but the support for farmers is still limited, the credit support for farming is being constrained due to difficulties of the current economy, there is still no consulting mechanism to support small-scale facilities in developing and adopting the GMP-SSOP program after the termination of FSPSII project...

Due to the inadequacies of policies: The procedures for certificates of land use rights and assets attached to land, infrastructure and planning for aquaculture production... as well as restrictions on the human resources of management agencies. At the present, the provincial authorities have not yet penalized cases without food safety certification, therefore the sense of complying with standards of communities, fishermen, aquaculture producers, facilitates of procurement, processing, materials and chemicals supply is not promoted.

3.3.3.3. Assessment of advantages and difficulties in the certification application in Ben Tre province

a) Do enterprises, farmers wish to adopt the certifications? If yes, what kind of certifications is it? Why?

Small-scale manufacturers such as farming households, material purchasing agencies, fishing vessels are almost not certified. The support from the state authorities to the small-scale manufacturers is still low while the resources of these manufacturers are still limited. On the other hand, the state agency has not sanctioned these agencies though they do not have compulsory certification, for the voluntary certification, these small-scale manufacturers do not see the benefit of having this certification. Therefore, most of these manufacturers do not see the need to apply certification. Some large-scale manufacturers may wish to apply certification to promote product sales, attract more customers but the information about the types of certificates are not available and it is difficult to consult as well as the cost to evaluate and maintain current certification categories is still quite high.

The seafood export and processing enterprises already have compulsory and some voluntary certification as required by the state and the market and. Many enterprises currently have a lot of certification and are complaining about the burden of funding, manpower due to the application and maintenance of certification while the selling price is still the same. The expectation of applying more certificates depends on the need to expand the market, customers' demand, main products of the enterprises, for example, customers in the EU often require certification such as BRC, GlobalGAP , ASC, customers from the US often require BAP certification, ...

b). Do the local/ sectoral management agencies support in the adoption of certifications? If yes, what kind of support is it?

In aquaculture and capture fisheries:

The State has some policies to support aquaculture farms to apply and obtain VietGAP under Decision No. 01/2012 / QD-TTg dated 01/09/2012 of the Prime Minister and Circular 48/2012 / TT0-BNNPTNT dated 26/9/2012 by MARD. . .

The State management agencies have actively supported enterprises and ship owners in providing information and guiding the implementation of the IUU certification by propaganda, introducing recording forms in accordance with Circular 28/2011 / TT-BNNPTN and Circular 50/2015 / BNN, guiding fishermen in terms of how to write, record full capturing log books, to avoid capturing in restricted areas and illegal fishing gear.

In the export processing:

In terms of voluntary certification for export processing enterprises, the support from government agencies and associations are mainly in the form of providing information to businesses about the rules, requirements of the import markets, such as new regulations of the US Department of Commerce for the fish processing plants to export to the United States, information on the trends of the markets and consumers, ... Other types of support such as counselling, financial, and training have not yet been provided.

c) Orientation of the local management agencies in the adoption of certification?

For aquaculture: the province will build safe aquaculture zones in the direction of the linkage, pilot and replication of high-technology application. They will promote the farming area in the direction of safe and sustainable development, encouraging the expansion of industrial and semi-industrial farming area; application of high technology and good aquaculture practices (GAP) in line with the international standards.

For fisheries capture: The province will implement restructuring of coastal fishing vessels, restricting fishing gears and vehicles that exploit fisheries resources and destroy marine ecological environment, implementing IUU certification well, promoting the development of the model teams and groups in fisheries capture.

For seafood processing: encourage institutions, enterprises to adhere to and apply the certification sp that products can ensure food safety, comply with the provisions of Vietnam and export markets, combine and organise production according to value chain, integrate processing and consumption with materials production for product quality assurance, food safety and environmental protection; priories the development of products with added value.

3.3.4. Qualitative assessment

3.3.4.1. Assessment of supporting policies for the certification application?

Opinions of State management agencies:

Supportive policies are still deficient and inappropriate, supportive policies for key aquaculture species such as pangasius, marine shrimp, cray fish, tilapia, clam need to be supplemented.

Results of the field survey reflect that: There are currently quite many policies supporting the adoption of certification in the fisheries sector, however it is necessary to have more specific implementation instructions, management agencies need to promote the support in market orientation and the connection between stakeholders in the implementation of policies. There should be more supportive policies for disease-free seeds, ensuring the quality of feed and chemicals, marketing.

The policies for certification should be synchronous and feasible. It is also necessary to strengthen the effectiveness of law enforcement (supporting enterprises in conducting administrative procedures, raising the officers' awareness of policies ...).

Planning (especially detailed planning) need to be further reviewed and adjusted.

Regulation for small-scale facilities of raw material procurement, pre-processing to adopt the GMP-SSOP standard is inappropriate, because these facilities itself does not have the sufficient capacity and resources for GMP-SSOP adoption. The State should have policies providing financial, consulting and training supports for these facilities so that they can understand and adopt the GMP-SSOP standard.

The Ministry of Finance and other related Ministries should reconsider the application of fees charged for the certification of traceability, at the same time lower the fee of obtaining food safety certification for fishing vessels, small-scale facilities of material procurement, processing to facilitate these in the adoption of Vietnamese and international mandatory certificates.

Opinions of producers:

The State should have policies to complete the aquaculture process that meets the customers' requirements, take measures to help producers improve the product value, support the cooperatives in increasing the linkage to create a material supply that is stable both in quality and quantity for processing enterprises.

The State should lower the rent fee for farming areas, since, usually not all the allocated area to cooperatives has sufficient conditions to be used for aquaculture, but cooperatives still have to pay for the whole area.

The State should consider decreasing the tax of natural resources from 15% to 7% as before to support the aquaculture development.

3.3.4.2. Challenges and proposed solutions to support the certification application

a) Solutions regarding the planning and management:

- Improve the feasibility, appropriateness of the developed plannings (currently, some planning are developed in a way like "redrawn" without breakthroughs and feasibility).

- For the detailed planning: It is also essential to consider factors such as the environmental capacity, landscape, geomorphology, social-economic conditions. These are important factors to determine the concentrated farming areas with synchronous infrastructure which creates favourable conditions for the application of certification.

- The State should have the planning for aquaculture areas to be certified on the basis of the Development strategy of Vietnam's fisheries towards 2020 (Decision 1690/QD-TTg dated 16/9/2010) and the Master plan on the fisheries development until 2020, with vision towards 2030 (Decision 1445/QD-TTg dated 16/08/2013) to invest in infrastructure appropriately (irrigation systems - infield irrigation, three-phase electric power system serving intensive, semi intensive farming areas...); facilitate the farming establishments here so that they are able to meet the requirements of the sustainability criteria; while creating the clean raw material supply zone for seafood processing and export enterprises.

- The State should ensure a good implementation of planning for farming areas and regularly review, adjust the existing fishery planning to detect shortcomings for timely adjustments to be applicable in practice; to ensure the sustainable and harmonized development between the areas in the province and between the aquaculture sector and other related sectors (rice-growing areas, industrial crops, fruit trees, livestock). The State should also soon enact regulations for handling the violation of planning to eliminate causes leading to the low effectiveness of promulgated plans.

- For VietGAP planning and management:

+ In order to expand VietGAP or other sustainable certificated farming, it is ideal if a strategic planning for farming areas, which are eligible for VietGAP or other sustainable certification application can be formulated. By doing that, certified raw seafood materials can be provided sufficiently for processing and exporting businesses.

+ A management software should be developed to help management agencies update vessels' information as well as to form a database of fishing vessels and catch certifications. This software is very useful for local authorities to supervise vessels' operation or businesses' performance to provide support for traceability.

- The State should strengthen the monitoring and management of the market to prevent traders from bringing raw materials with poor quality of other areas (such as commercial clam without brand, no MSC certification, shrimp pumped with impurities...) into the provincial market for sale at a much lower price (the price of oysters from the North is even just half the price of the Ben Tre clam).

b) Solutions regarding the technique:

- Developing and improving technical regulations, technical-economic norms to facilitate the development of production to support the certification adoption.

- Constructing the synchronous infrastructure and logistics serving aquaculture, capture fisheries and fishery processing.

- The State invests modern equipments for measuring and testing the residue of prohibited substances to ensure the accuracy of threshold measurement of these substances in shipments before export.

- For aquaculture, beside technical assistance of specialized agencies, farmers are very nimble and flexible to learn from other successors. Some producers with financial ability have taken overseas trips or gone to the Mekong Delta to learn new technologies and experiences such as shrimp farming in greenhouses.... Consequently, technical problems can be solved because producers will be willing to learn and apply new technologies into farming activities if they are effective.

- For capture fisheries, there is a need to provide guidelines and improve capturing and storage technologies in fishing vessels to reduce post-harvest losses on boats. We should upgrade infrastructure and management capacity at the fishing ports to improve product's quality and ensure food safety.

- MARD should speed up the process to work with certification bodies so that these bodies soon recognize the similarity of VietGAP with other international sustainable standards such as ASC, GlobalGAP, BAP.

- The State should provide advices, training, guidance and a part of the cost for small-scale material procurement, pre-processing and processing facilities in the province to develop and adopt GMP-SSOP programs (for material procurement and pre-processing facilities) and HACCP (for processing facilities).

Currently, Ben Tre has not yet issued identification codes for farms and hatcheries. This causes difficulties for the traceability of culture materials as well as the farming area management of the State as well as of processing enterprises, which consequently hinders the fulfilment to traceability requirements of sustainable certification. Therefore, the province should promote the process of granting identification codes for farms, hatcheries in the province.

c) Solutions regarding the market:

- Developing the brand identity and eco-labelling systems to facilitate the access of export products to difficult markets.

- In the capture fisheries, in order to promote dolphin safe certificates of NOAA for captains and fishermen who do not know English and unable to learn online through NOAA's website, D- FISH has cooperated with NOAA to conduct propaganda based on 2 NOAA's materials which were translated from English to Vietnamese.

- Building and developing forecast capacity of the world's seafood market on following aspects: price and types of products, demand and consumption trends, market fluctuation and demand of product quality, as well as creating accessible information channels (electronic portal, website, newsletter via mobile phone, ...) to spread information about the requirements, regulations, demands of each market, consumption trends in the markets, ... for enterprises and communities.

- Strengthening trade promotion activities of fisheries in the overseas market by participating in food and fisheries fairs in key and new markets, visiting and working with foreign retailers, learning foreign markets.

- Building and promoting the image of key products with high-quality in Ben Tre such as clam, pangasius, black tiger shrimp. Strengthening the contact with individual organizations and overseas Vietnamese community to promote Vietnamese seafood.

- Since Vietnam joined the WTO and signed or is going to sign many new trade agreements such as TPP, VKFTA, EVFTA, and etc, enterprises should understand and well apply the provisions of these FTA to reduce tax, enhance competitiveness and access the market for their products.

d) Solutions regarding the policy:

- Strengthening the enforcement of policies.

- Developing policies on specific instructions for enterprises and communities to implement the policies, regulations.

- Regarding compulsory certificates of Vietnam, it is necessary to simplify procedures, reduce the cost of taking samples and shorten the time for inspecting export shipments.

- Agriculture has some effective policies that fisheries do not have such as policy of large sample field, policies for infield canal dredging (aquaculture canals are too old but there is no fund for dredging) (Some provinces have implemented this canal dredging policy, but it is difficult to implement in Khanh Hoa due to the lack of local funding).

- If there is enough capital, provinces will invest in drainage channels and accompanying infrastructure for 1 or 2 areas to implement VietGAP, establish a management board, develop regulations as well as require investors who want to culture in this area to comply with VietGAP's provisions. This helps to build separate VietGAP areas which can supply a large quantity of VietGAP products for processing businesses ... That is also the expectation of processing businesses because they will no longer have to seek clean material for processing.

- Regarding the local management policies: the management agency should make assessment after harvest. This can be done at the ports. When the vessels dock at the ports, the official will record the quantity and quality of caught products to create a basis for management. Currently, there is no fund to support Fisheries Department to do this.

- The state issued the suitable schedule of charge and fee for granting certificate of traceability and reduced the fees for granting certificate of food safety fishing vessels, small-scale fisheries collecting, processing facilities.

- Supportive policies of granting certificate of traceability for fisheries and seafood products will be promulgated soon.

e) Solutions regarding the capital:

- Support in loaning capital: Since the fisheries sector contains high risks, where the professional level of people is still limited, it is difficult to access loans from commercial banks. Thus, there is the need of governmental support in loans for enterprises and people to boost the production. The state should have mechanism for policies of preferential credit on the interest rate, loan term and the loan guarantees for businesses, corporation investment in the fields of aquaculture and seafood processing.

- Enhance cooperation with other countries and international organizations (international financial institutions such as ADB, World Bank, NGOs such as OXFAM, USAID, IDH, ...) in order to attract capital investment for activities to improve infrastructure and upgrade facilities for aquaculture production and funding for technical assistance activities, to promote the application of standards for the province's seafood industry.

- Step up activities to promote foreign direct investment for industrialization in Ben Tre fishery.

There is some policies regulating loans for facilities which apply VietGAP such as: Decision No. 01/2012/QĐ-TTg, Circular No. 48/2012/TT-BNNPTNT and Circular No. 53.

However, loaning based on these policies is still fewer since few facilities follow VietGAP. This, again, raises the issue needing to be addressed: facilities operating in fisheries sector need to understand the benefits of following good aquaculture practices.

(Circular No. 53 provides the list of supported products under Decision No. 01/2012/QĐ-TTg but only for pangasius, shrimp, tiger prawn and tilapia).

f) Solution regarding the production organization:

- For aquaculture and capture fisheries, the production needs to be reorganized towards production with the participation and supervision of community.

- For fishery enterprises, to overcome the shortage of raw materials, it is necessary to consider the import of processed materials to create value-added products or participation in co-processing activities with international partners.

- Lobster: some lobster farming areas also establish associated groups and get support in terms of loans from Farmer's Union

- Businesses cooperate with groups and teams to get materials for processing. Businesses will work with groups' leaders.

- In the past, cooperatives also had some activities but they were not effective so they could not exist, now there are mainly teams.

- Due to so many types of voluntary certifications and the high cost to maintain these certifications; small producers should have production models which help to get certified for groups, for example ASC or VietGAP certification for groups through cooperatives, solidarity organizations, fisheries union, etc.

- Promoting the seafood processing manufacturers, enterprises and ancillary services sectors in Ben Tre to associate per value chain (vertical integration) to raise value-added in the basis of fisheries capturing and rational use of natural resources, potential water surface for aquaculture in association with protecting local ecological environment and meeting the market demand for sustainable development.

- Small farms should officiate linkage to have conditions for the involvement of voluntary certification (such as ASC, BAP, GLOBALG.AP) due to advisory fees, assessment and maintenance for a certification is quite high, hardly suitable for individual small farms.

- Many cooperation teams in capture fisheries of Ben Tre has now been formed, but mainly for the loan deals; Fishing vessels in the team are not working together in the capturing activities, sea supporting, ... so the operation of the teams is not effective. The state authorities, Ben Tre Fisheries Association need to have measures so that fishing vessels in the teams can closely link and work together.

- The fishery cooperatives, fishery farms, with support from Ben Tre Fisheries Association need to work closely together in the forms of clubs, signing the Agreement, Union, Team Link ... to cooperate and deal with the challenges in the manufacturing sector such as the problem of "clam attackers", the anti-dumping on the market before the arrival of the raw materials of low quality seafood from other provinces, protecting resources and the environment.

Currently, Khanh Hoa has 3 capture fisheries unions, they are Phuoc Dong, Xuong Huan, Vinh Phuoc. The local management agency will support unions representing for fishermen to sign the consumption contract with businesses to accelerate the capture, processing and consumption of tuna (as defined in the scheme of MARD). To implement this chain effectively, there is a need for the commitment of fishermen with the unions to ensure the quality and food safety of caught products.

Like other provinces nationwide, Khanh Hoa is underway to encourage the establishment of associated production groups, community-based resource development groups or co-management systems for sustainable farming management in the same farming area. By doing that, the local farmers can cooperate to purchase farming inputs such as seeds, feeds to ensure high quality and competitive prices when buying in bulk. However, these groups have not been effective as their activities have not been sustainable as well as have not ensured the long-term interests of the members.

There is only the community team of seaweed and oyster cultivation in Cam Phuc Bac (Cam Ranh District). This team has gained the first efficiency because the team leader has a large amount of capital to support production capital for members. He also plays the role of the middlemen who purchases products from farmers. Therefore, the seaweed value chain has been established: businesses sign contract with the community team and provide them loan for cultivation, the team will cultivate and supply seaweed back to enterprises to serve the processing and consuming stage.

4. CONCLUSION AND RECOMMENDATIONS

4.1. Conclusions

Compared with other countries of the same state of development Vietnam is well advanced in the application of voluntary standards in the seafood industry. This is basically true for the South with strong shrimp and pangasius farms and production.

The Northern and middle parts of Vietnam that depend a lot more on wild catch and farms are more diverse, smaller in size and less strong in capital, substantially fewer voluntary standards are applied.

Besides the mentioned “hard” criteria soft skills, especially education of the farmers plays a vital role in the adaptation of standards.

There is no question that voluntary standards are supportive for any kind of marketing towards the EU market but also beyond. Further, there is no disagreement that the number of overlapping standards is too high, which is confusing for the markets and expensive for the producers. First thoughts are expressed within the EU administration to consider that problem.

4.2. Proposed solutions to support the certification application

The following points under a-c have derived and are summaries from the interview of the local consultants during their field research. The under d mentioned recommendations have been worked out during the workshop.

a) Solutions regarding the planning and management:

1. Offer guidelines for planning of farm areas and farms with combined ecological and feasibility aspect. Basis for planning should be the Development strategy of Vietnam's fisheries towards 2020 (Decision 1690/QD-TTg dated 16/9/2010) and the Master plan on the fisheries development until 2020, with vision towards 2030 (Decision 1445/QD-TTg dated 16/08/2013)

2. The State should ensure a good implementation of planning for farming areas and regularly review, adjust the existing fishery planning to detect shortcomings for timely adjustments to be applicable in practice.

3. To expand VietGAP or other sustainable certificated farming, preconditions for such certifications must find entry into the total planning process

4. VietGAP: As has been shown in the interviews, the obligation of VietGAP for all farms seem to be extremely difficult if not impossible if farms are to small (family ponds) and/or the educational standard of the farmers is insufficient. In this sense the decree might have to be readapted and educational efforts might have to be increased.

5. VietGAP: The VietGAP implementation requires a substantial investment. The ground property laws seam to prevent planning security: if the farmland cannot be owned, long term leases may be necessary to provide the planning stability the farmers need.

6. VietGAP: The VietGAP implementation requires a substantial investment.

7. For export, oriented producers internationally recognised standards (e.g. GlobalGAP/ASC) might be more favourable. A smooth transit or transfer point from VietGAP to GlobalGAP might have to be thought about.

8. MARD should speed up the process to work with certification bodies so they soon recognize the similarity of VietGAP with other international sustainable standards such as ASC, GlobalGAP, BAP.

9. Fleet management: software should be developed to help management agencies update vessels' information as well as to form a database of fishing vessels and catch certifications. This software is very useful for local authorities to supervise vessels' operation or businesses' performance to provide support for traceability.

10. Imported materials need to follow the same criteria in hygiene and clean production as it requested by legal requirement from Vietnamese production.

b) Solutions regarding the market:

11. Developing the brand identity and eco-labelling systems to facilitate the access of export products to difficult markets.

12. Consolidate efforts to reduce the number of certificates for different markets (e.g. dolphin free catch)

13. Where there are particularities build and promote regional images of key products with high-quality (e.g. in Ben Tre such as clam, pangasius, black tiger shrimp). Strengthen this way the contact with individual organizations and overseas Vietnamese community to promote Vietnamese seafood.

14. Disseminate to private industry that Vietnam joined the WTO and signed or is going to sign many new trade agreements such as TPP, VKFTA, EVFTA, etc., enterprises should understand and well apply the provisions of these FTA to reduce tax, enhance competitiveness and utilise this for marketing of for their products.

c) Solutions regarding the capital:

15. To support the application of voluntary standards in Vietnam, create facilities to offer preferential credits for companies that support environmentally clean production und support the marketing of these products by labels,

16. Create associations to get better access to markets and capital. E.g.: The fishery cooperatives, fishery farms, with support from Ben Tre Fisheries Association need to work closely together in the forms of clubs, signing the Agreement, Union, Team Link ... to cooperate and deal with the challenges in the manufacturing sector such as the problem of "clam attackers", the anti-dumping on the market before the arrival of the raw materials of low quality seafood from other provinces, protecting resources and the environment.

d) General recommendations to the industry:

1. Never circumvent legal requirements – it will fall back on the producer who did it and eventually also on the sector. The EU will make such events public.

2. Start thinking about voluntary standards after you are sure you can fulfil legal requirements.

3. If you agree with a customer on quality standards, keep them as promised. If there is a problem, inform your customer beforehand, as soon as you get to know about it.

4. Orientate yourself with voluntary standards at your customer base. For farming GlobalGAP is much appreciated worldwide, as are ASC and BAP in several countries.

5. If sea-catch contact WWF. There are preliminary programs that work towards MSC and are already appreciated by the customers.

6. Producers: be aware that farms and vessel owners usually do not have direct access to export markets. It is your role to communicate the market needs to them.

7. Sea catch: build associations and cooperate with ministry to set up TACs (Total allowable Catches) and reinforce, regulate catching gear in preparation for MSC

8. When considering BRC/IFS do not just look at the costs. Talk to companies who have gotten it: many companies have a lot of internal gains do to easier administration, reliable management structures, less losses and upsets.

9. Try to build traditional farms into associations and get accreditation for it. Benchmark in Bangladesh!

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Appendix for relevant policies:

Decree 59/2005/ND-CP on production and trading conditions for some fishery industries

Decree 14/2009/ND-CP supplementing Decree 59/2005/ND-CP; Decree 33/2010/ND-CP on management of fishing activities

Decree 33/2010/ND-CP on management of fishing activities

Decree 53/2012/NDCP on amending and supplementing some articles of the decrees regulating the fisheries sector

Food Safety Law

Decree 38/2012/ND-CP on detailing the implementation of some articles of the Law on Food Safety

Circular No. 33/2015/TT-BNN on monitoring the hygiene and food safety in the harvest of bivalve molluscs

Circular 47 on registration for hygiene and food safety

Joint Circular 13/2014/TTLT-BYT-BNNPTNT-BTC between the Ministry of Agriculture and Rural Development and the Ministry of Health guiding the assignment and coordination in the State management of food safety

Circular 51/2014/TT-BNN of the Ministry of Agriculture and Rural Development on the management of small-scale production and businesses

Circular 31/2015/TT-BNN on monitoring toxic residues in aquaculture products.

Decree No. 59/2005/ND-CP dated May 04, 2005 on conditions for a number of aquatic resource production and business lines.

Circular No. 02/2006/TT-BTS dated March 20, 2006 guiding the implementation of the Government's Decree No. 59/2005/ND-CP of May 4, 2005 on production and business conditions of a number of fisheries trades.

Circular No. 62/2008/TT-BNN dated May 20, 2008 on amendment and supplement of a number of provisions of the Decree No. 02/2006/TT-BTS.

Decree No. 14/2009/ND-CP dated February 13, 2009 on amendment and supplement of a number of articles of the Decree No. 59/2005/ND-CP of May 04, 2005 on conditions for production and doing business of a number of aquatic product business lines.

Decision No. 142/2009/QD-TTg dated December 31, 2009 and Decision No. 49/2012/QD-TTg dated November 8, 2012 (amending and supplementing Article 3 in Decision No.142) on mechanisim, policies of support of plant varieties, livestock, fisheries from production restoration of areas damaged by natural disasters, epidemics were is issued to provide support for farmers. Farmers, however, do not have the habit of registering or declaring their products, thus when there is any damage, they have no evidence to receive financial support as prescribed in the Decision.

Decree No. 33/2010/ND-CP dated March 31, 2010 on the management of fishing activities in sea areas by Vietnamese organizations and individuals.

Circular No. 14/2011/TT-BNNPTNT dated March 29, 2011 providing on inspection and assessment of production and business facilities of agricultural materials and agro-forestry-fisheries products.

Decree No. 53/2012/ND-CP dated June 20, 2012 amending and supplementing a number of articles of the Decrees on aquatic product area.

Circular No. 15/2012/TT-BYT dated September 12, 2012 providing on general conditions to ensure food safety for food production and business facilities

Decision No. 68/2013/QD-TTg dated November 14, 2013 on supportive policies on reduction of losses in agriculture helps to reduce post-harvest losses as well as support machine and equipment;

Decision No. 3824/QĐ-BNN-TCTS dated September 06, 2014 providing regulations on Vietnamese Good Aquaculture Pratices and Decision No. 4669/QĐ-BNN-TCTS dated Octorber 28, 2014 guiding VietGAP for pangasius catfish.

Decree No. 89/2015/ND-CP dated Octorber 7, 2015 on amendment and supplement of a number of articles of the Decree No. 67/2014/ND-CP of July 07, 2014 of the Government on a number of fisheries development policies.

Circular No. 50/2015/TT-BNNPTNT dated December 30, 2015 issued regulations on validation of catch certificates, statements (aim to meet requirements of IUU).

QCVN 02-02:2009/BNNPTNT on the establishments producing and trading aquatic products - The Program ensuring Quality and Food Safety under HACCP principles
QCVN 02-02:2009/BNNPTNT on the establishments producing and trading aquatic products - General conditions to ensure food safety

Circular 62/2008/TT-BNN amending and supplementing Circular 02/2006/TT-BTS

Circular 02/2006/TT-BTS dated March 20th 2006 of the Ministry of Fisheries (before) on guiding the implementation of Decree No. 59/2005/ND-CP dated May 04th 2005 regulating the production and trading conditions of some fishery industries

Circular 08/2016/TT-BNN on monitoring the hygiene and food safety

Decree 89/2015/ND-CP dated October 7th 2015 of the Government on amending and supplementing some articles of Decree 67/2014/ND-CP

Circular 48/2013/TT-BNN dated November 12th 2013 of the Ministry of Agriculture and Rural Development on replacement of Circular 55 which regulates the control and certification of food safety of fisheries export products