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WORLD MARITIME UNIVERSITY

Malmö, Sweden

**Current situation and solutions in Vietnam's
national legislation on fisheries subsidies to prevent
illegal, unreported and unregulated (IUU) fishing.**

By

NGUYEN TIEN HOANG

Vietnam

A dissertation submitted to the World Maritime University in partial
fulfilment of the requirement for the award of the degree of

MASTER OF SCIENCE

In

MARITIME AFFAIRS

(Maritime Law and Policy)


2021

Declaration

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

(Signature):



A handwritten signature in black ink, consisting of stylized initials 'Jm', is written between two parallel horizontal lines that serve as a signature line.

(Date):

21 September 2021

Supervised by:

Professor Raphael Baumler
World Maritime University

Abstract

Title of dissertation: **Current situation and solutions in Vietnam's national legislation on fisheries subsidies to prevent illegal, unreported and unregulated (IUU) fishing**

Degree: **Master of Science**

Illegal, unreported and unregulated (IUU) fishing has been a major global challenge in the maritime sector in general and in the Vietnamese sea area in particular. Under the current conditions of increasing human demand for seafood, IUU fishing is increasing at a high rate and has a negative impact on many aspects of the marine environment. IUU fishing not only causes serious economic and ecological impacts on affected countries, but also harms biodiversity and fishery supplies of coastal countries. To combat IUU fishing, the European Commission (EC) has issued Regulation No 1005/20081 effective on October 1, 2010, thereby establishing an EU-wide system to prevent and eliminate remove the importation of IUU fishery products into the EU market.

In particular, after the European Commission (EC) "yellow card" warned Vietnam's fisheries and seafood exports to the European market in October 2017, the entire Vietnamese fishery has suffered damage, which is a significant loss in both export and business reputation in the international market. From these reasons, it is very necessary to consider and assess the impact of the provisions of Vietnamese law on IUU fishing, especially in the area of Government fisheries subsidies that increase illegal fishing. Accordingly, the author chooses a problem that is not so new but needs attention – "Current situation and solutions in Vietnam's national legislation on fisheries subsidies to prevent illegal, unreported and unregulated (IUU) fishing".

This dissertation is analyzed based on the provisions of current law in Vietnam, available data and information in the socio-economic fields in general and in the maritime sector in particular on marine subsidies production in the past few years. At the same time, this dissertation also highlights the advantages and disadvantages of Vietnamese law in the regulation of fisheries subsidies compared with those of the

World Trade Organization (WTO), the Organization for Economic Co-operation and Development (OECD) and the United Nations. At the same time, the thesis will propose some recommendations to improve and reform existing Vietnamese laws and policies to reduce fisheries subsidies, be in line with international regulations, and minimize the rise of IUU fishing.

Keywords: IUU fishing, fisheries subsidies, Vietnam.

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Secondly, I would also like to thank Sasakawa Peace Foundation for the scholarship that gave me a precious dream to study at the World Maritime University, where I aspired to study for a long time. I would like to thank my organization in Vietnam - Vietnam Maritime Administration for helping and nominating me to enroll in the M.Sc course with a major in Law and Policy. The Vietnam Maritime Administration has created the best conditions and supported me in all aspects so that I can complete this course completely.

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List of abbreviation

ASEAN	The Association of South East Asian Nations
EEZ	Exclusive Economic Zone
EIA	Energy Information Administration
FO	Fuel Oil
GDP	Gross Domestic Product
GT	Gross Tonnage
IMF	The International Monetary Fund
IMO	International Maritime Organization
Km2	Square kilometer
SCS	South China Sea
SDR	Special drawing rights
STCW	The International Convention of Training Certification and Watchkeeping for Seafarers
The UN	The United Nations
UNCLOS	The United Nations Convention on the Law of the Sea
UNESCO	the United Nations Educational Scientific and Cultural Organization
USD	United States dollar
Vinamarine	Vietnam Maritime Administration
VND	Vietnam Dong
VNU	Vietnam National University
IUU	Illegal, Unreported and Unregulated
EC	European Community

CHAPTER 1

1.1. Introduction and problem statement

Along with the world's development in recent periods, the marine industry in general and the fishing industry, in particular, have made tremendous and steady progress. The goal of sustainable development of the fisheries sector is of particular interest in the years from 2020 onwards (SOFIA, 2020), with a long-term and stable development demand for the whole world.

Total fishing production from 1950 to 2014 was 5.8 billion tons (Carlson, A. K. et al, 2020). This production had increased from 26.3 million tons to 104.6 million tons in 2014. Figure 1 shows that the global exploitation and aquaculture capacity has increased dramatically and indicates the importance of the fishing industry in the entire maritime industry with a very rapid increase in value (USD 29.5 billion to 156.5 billion for 64 years).

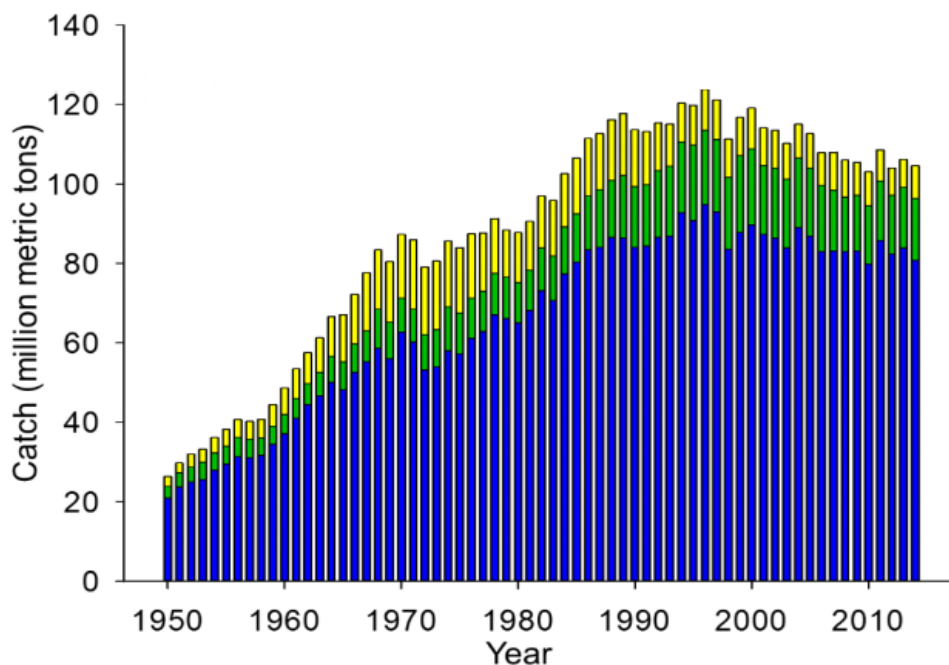


Figure 1: Total global fishing production from 2010 to 2014

Source: (Carlson, A. K. et al, 2020)

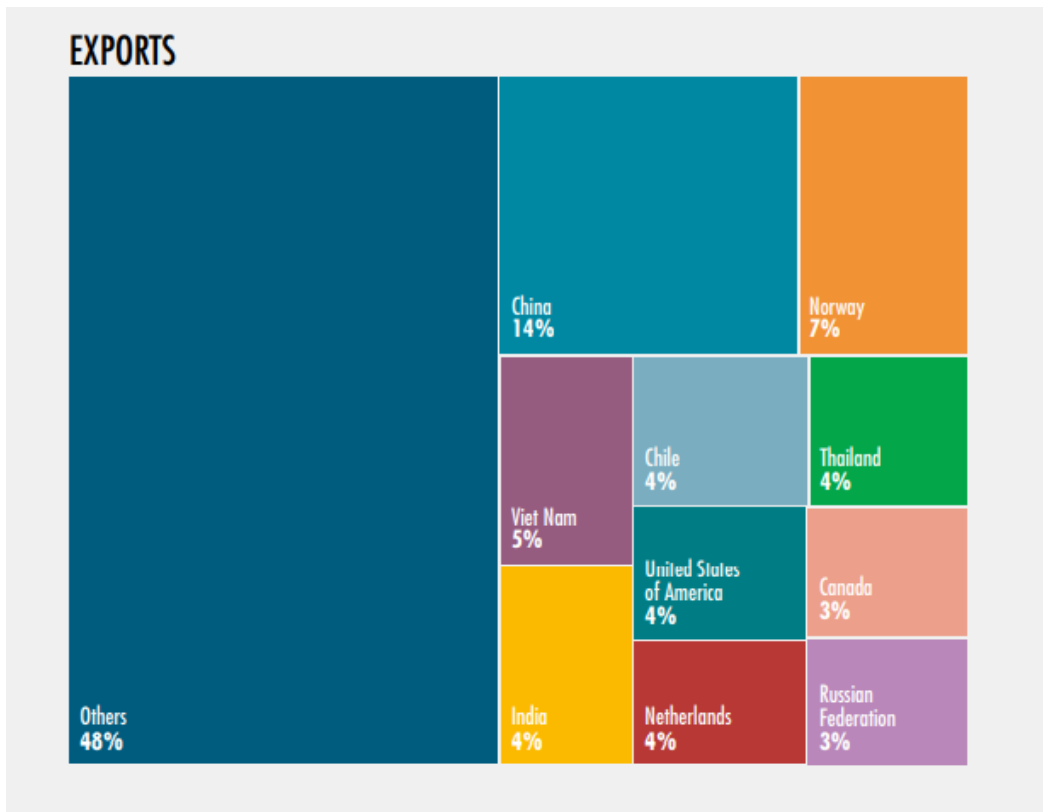


Figure 2: Countries that export fish and fish products in value - 2018

Source: (FAO, 2020)

Along with the healthy development of the world fishing industry, Asian countries (China, Thailand, etc.) in general and Vietnam occupy a considerable proportion in this industry. Besides, China accounted for 14% of export fish and fish-related products in 2018, while Vietnam accounted for 5% of this total (FAO, 2020). In addition to the positive development, the fishing industry in developing countries still has many limited and emerging problems. The significant problem is Illegal, Unreported and Unregulated (IUU) fishing at the moment.

International organizations and marine countries around the world use the concept of IUU fishing to define activities that do not comply with the laws of countries with Sovereignty Sea, international sovereignty or not reported and unregulated fishing in a country's waters.

The definition IUU fishing

Illegal fishing is a form of fishing in which vessels operate in violation of a coastal state's law or have sovereignty over the sea where there is jurisdiction over that country.

Another form of IUU fishing is non-reporting. Fishing is misreported or not reported to a competent authority such as the Department of Agriculture, the Department of Maritime Affairs or other relevant authorities.

Finally, unregulated fishing is a type in which stateless vessels or ships flying the flag of a country that is not a member of the organization in that area manage.

Source: The Food and Agriculture Organization (FAO.org)

IUU fishing problems have a history of originating in developing countries, but today it occurs in the richest and the developed world. This shows that even countries with full potential in economics, politics, culture, science, and technology cannot fully address IUU fishing's problem (Hagan, S. A.,2014).

There are many causes leading to IUU fishing such as the ethics of the crew, the education of the fishermen and the significant decline in seafood production. However, fisheries subsidies are the main driver with the most impact on IUU fishing. According to the Organization for Economic Co-operation and Development, each year, governments in the world spend \$35 billion on fisheries subsidies, accounting for 20% of the total value of fish caught at sea. Thanks to these fisheries subsidies, seafarers seem to have new incentives to fish. Organizations with strong economic support from the government seek to maximize fishing at sea to bring huge economic income, but this is also the highest risk to IUU fishing.

Because global illegal fishing is becoming more and more complicated and unpredictable, it affects all countries and territories with the sea in the world. Therefore, the IUU fishing index was developed and established by Poseidon Aquatic Resource Management Ltd, the Global Initiative against Transnational Organized Crime, and funded by the Norwegian Foreign Ministry. This index is a highly respected metric and measures the extent to which countries resist IUU fishing. On a

scale of 1 to 5 (5 being worst and 1 being best), this index aggregates transparency and allows countries to assess their vulnerabilities and responses to IUU fishing activities.

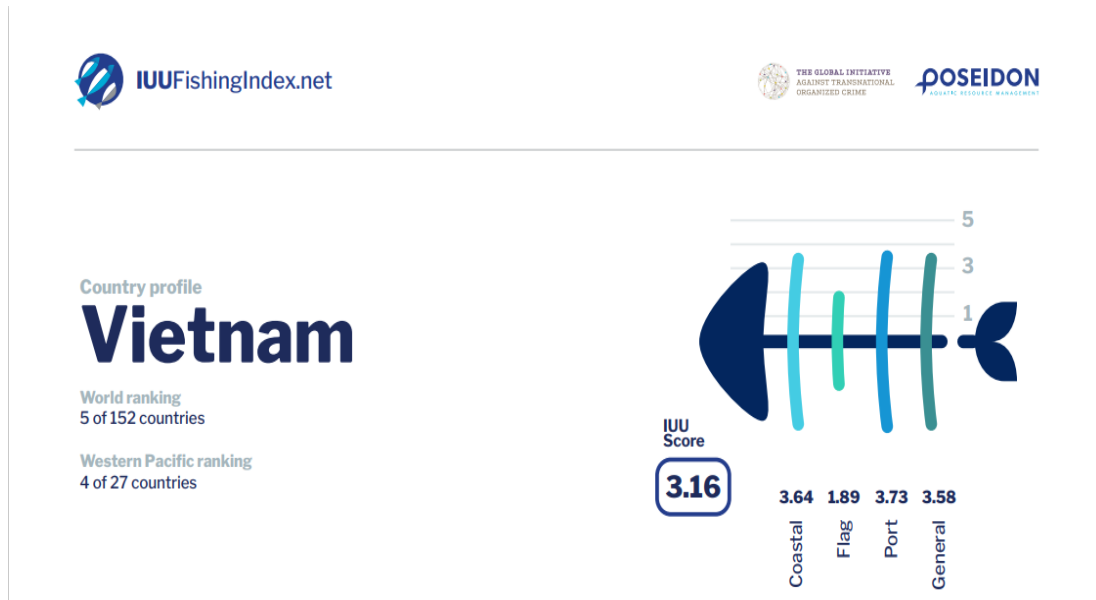


Figure 3: Vietnam IUU ranking in the world

(Source: IUUfishingindex, 2020)

As shown in Figure 3, the IUU Fishing Index considers Vietnam as the 5th country for IUU fishing, after four countries: China, Taiwan, Cambodia and Russia. This is an alarming number for a developing country like Vietnam. As a result, on October 23, 2017, the European Union officially applied a yellow card to Vietnamese seafood because the conditions did not comply with the anti-IUU fishing regulations (VASEP, 2018).

Every year, Vietnam's seafood export value to Europe and the US is about 300-400 million USD. However, if Vietnam continues to be a yellow card and maybe in the future a red card, it will be a massive disadvantage for Vietnam's seafood industry when it is banned from exports to these billion-dollar markets. This will be an enormous impact of IUU fishing on the entire seafood industry in Vietnam.

In response to this problem, the government and state agencies have taken several active policies and laws against IUU fishing intending to create a transparent, public fishing environment to remove the EU's yellow card.

1.2. Research objectives

The aim of the paper is to discuss national laws and policies in Vietnam on fisheries subsidies because they may increase the volume and scale of IUU illegal fishing. Based on international analysis on global fisheries subsidies developed by the World Trade Organization (WTO), the Organization for Economic Co-operation and Development (OECD) and the United Nations, this dissertation intends to assess the situation in Vietnam and to identify pros and cons as well as weaknesses and disadvantages to fisheries subsidies in Vietnam in relation to their impacts on IUU fishing.

This dissertation also tries to discover the limitations of the Vietnamese laws in terms of both theory and implementation, thereby proposing practical solutions and necessary measures for vocational fishing subsidies.

The goal of the author set out is as follows:

- Point out and clarify the development status of fisheries subsidy regulations in the national laws of Vietnam.
- Review international analyses and provisions on subsidies and IUU fishing which may justify the reduction of fisheries subsidies in Vietnam.
- Make recommendations in relation to fisheries subsidies in Vietnam.

1.3. Research question

- How do fisheries subsidies impact illegal, unreported and unregulated (IUU) fishing?
- What is the impact of fisheries subsidies on IUU fishing in Vietnam?
- What are the challenges that the maritime industry and Vietnam have to deal with regarding IUU fishing?

- How should fisheries subsidies be addressed to effectively combat IUU fishing in Vietnam?

1.4. Methodology research design and methods

To achieve the research objectives and purposes of this dissertation, and to find the most accurate answers to the research questions, the author uses qualitative research methods. This research process is divided into 3 stages as follows:

- In the first stage, Vietnam's fisheries subsidies will be analysed in relation to the recent negotiations and analyses provided by the WTO, the OECD and the UN. Information will be collected to analyse this issue (from international sources).

- In the second stage, analysing and comparing the expertise, advice of leading experts, and recommendations of Vietnamese maritime authorities to find the core and influential issues. These comments will be useful to paint an overall picture of how fisheries subsidies in Viet Nam impact and affect illegal, unreported, and unregulated (IUU) fishing in the South China Sea.

- In the final stage, through studying Vietnam's legal and policy systems and comparing with the roadmap of member countries with natural conditions and economic similar to Vietnam to provide the most suitable and feasible roadmap for reducing fisheries subsidies in Vietnam.

Other methods used are statistical methods to view the current status, content nature and phenomena of research subjects. Besides, the author also analysis highlight the general picture of Vietnamese law on the subsidy regulations fishing in increase IUU fishing.

1.5. Expected results

This dissertation intends to present the situation of illegal fishing in Vietnam. Simultaneously, the study will analyse the national fishing industry.

Additionally, the dissertation intends to make recommendations, particularly on fisheries subsidies, to prevent illegal fishing to fishers in coastal cities and provinces.

The author intends to offer practical measures for Vietnam in fighting costly illegal fishing and to remove the European Union's yellow card on IUU in Vietnam.

CHAPTER 2

2.1. Literature Review

IUU fishing is not a new problem for Vietnam and major seafood exporting countries in the world. However, the reduction of laws and policies related to fisheries subsidies has significantly increased illegal fishing legitimacy, which is a topical and interesting issue today.

Economic benefits arising from IUU fishing

According to Vietnam's white paper on IUU, it is estimated that at least 20% of wild seafood catches, i.e. 11-26 million tons of fish, are illegally caught, thereby bringing huge profits to fishers or operators, which is a profit of 10 to 24 billion dollars without farming or paying income taxes. Developing countries like Vietnam are often greatly affected by IUU fishing because the income and economy of seafarers, as well as people, are very low, in addition to the ability of the military to protect the coastal administrative institutions, which are weak.

Moreover, Vietnam's fishermen are mainly small-scale fishermen; they are considered the poorest of the poor (To Van Truong, 2013), and a relatively small share of the fishermen. Poverty is very common in coastal Vietnam with increasing levels of unemployment and underemployment (DANIDA, 2010). From the above reasons, with very high economic benefits and low-income ability of households, the government subsidizes fisheries for fishermen. Therefore, there will be many problems leading to IUU fishing because fishermen and boat owners have not been educated in fishing ethics, and the economic benefits are too high to increase the risk of all for illegal fishing.

Low penalty for IUU fishing

According to Vietnam's white paper on IUU fishing and the Government's Decree No. 42/2019-ND-CP on administrative sanctions in the fisheries sector, the Government has taken strict measures against violating vessels. IUU fishing fines are

7 times higher than the value of illegal fishing or individuals are fined up to 1 billion VND (about 45 thousand US dollars). This fine has increased from 6 to 10 times, but it is still very low compared to the region and the world as each violation is about 1 million dollars (Nguyen Hanh, 2019).

In addition, Vietnamese fishermen do not have the habit of keeping log books and currently there are no sanctions or obligations for fishermen to keep log books. This leads to many errors in certifying the origin of seafood (Lan Huong, 2019).

With a very low level of sanction or no such sanction, it is very easy for Vietnam to give rise to illegal fishing because the current forms of management, inspection and supervision are not enough deterrence and prevention in the future.

Poor management and governance lead to IUU

The lack of control from the flag country and the awareness of individuals/businesses carrying out fishing activities are prominent causes of IUU fishing (Nguyen Thi Hong Yen, 2019). In addition, the fact that some States, after allowing ships to fly their flags (especially vehicle flags), they fail to take actions to enforce the necessary control measures over such vessels; or others do not permit fishing vessels flying their flag to carry out fishing, which is also the cause of illegal fishing.

Nguyen Thi Kim Ngan (2019) suggested that the application of measures to handle violating vessels is not enough of a deterrent. The operational efficiency of law enforcement forces at sea was not high in 2015 and there are nearly 4,000 fishing vessels from foreign countries. In addition to illegal fishing in Vietnamese waters, there was an increase of 1,764 ships over the same period in 2014. The main measure that Vietnam applies is to chase away, or arrest, and sanction administrative violations, but the value is not high and then the foreign ships are released.

In addition, there are only over 700 Vietnamese government officials monitoring more than 1 million square kilometres of EEZ, and patrol boats, coast guard ships and other equipment are still in short supply (Tuong Phi Lai, 2009).

These reasons lead to the ineffectiveness of fisheries subsidies in Vietnam and a sharp increase in illegal fishing because of weak management and lack of effective control.

2.2. Conclusion

These studies have provided current issues and an overview of Vietnam's IUU fishing in recent times as well as the international legal and regulatory system on illegal fishing. However, the authors and the articles have not clearly stated that the main causes leading to the current outstanding problem of IUU fishing are policies, subsidies of the government and organizations that make excess fishing resources in the East Sea.

According to the results of previous analysis and the fact that Vietnam participates in negotiations on reducing WTO fisheries subsidies, the evidence shows that fisheries are one of the most important industries of coastal countries like Vietnam. However, with the strong economic benefits from illegal and unsourced fishing methods, combined with penalties for violations of Vietnamese and international fishing vessels, illegal fishing is still popular. At the same time, the management and governance of the country's fishing industry are revealing many different weaknesses. Therefore, the strict management and reduction of fisheries subsidies by specific laws and policies of Vietnam is an urgent need in the new era while protecting the environment as well as developing the economy and society.

2.3. Limitation

There is a relative lack of documentation and data on the financial, economic and social aspects of fisheries subsidies in Vietnam. Indeed, the same is true of other fishing-related studies, particularly IUU fishing.

However, it should be emphasized that not all of Vietnam's fisheries subsidies have led to an increase in illegal fishing, and not all fishermen and organizations receiving subsidies have resulted in an increase in IUU fishing.

The focus of this dissertation is on fisheries support policies and laws that give rise to and strongly increase IUU fishing such as shipbuilding support, fuel support, and economic support for fishermen, but not all fisheries policies in Vietnam. At the same time, this research also indicates specific fisheries subsidies received from the government and the positive points as well as the overall negative aspects in fisheries and aquaculture.

CHAPTER 3

3.1. General introduction to Vietnam

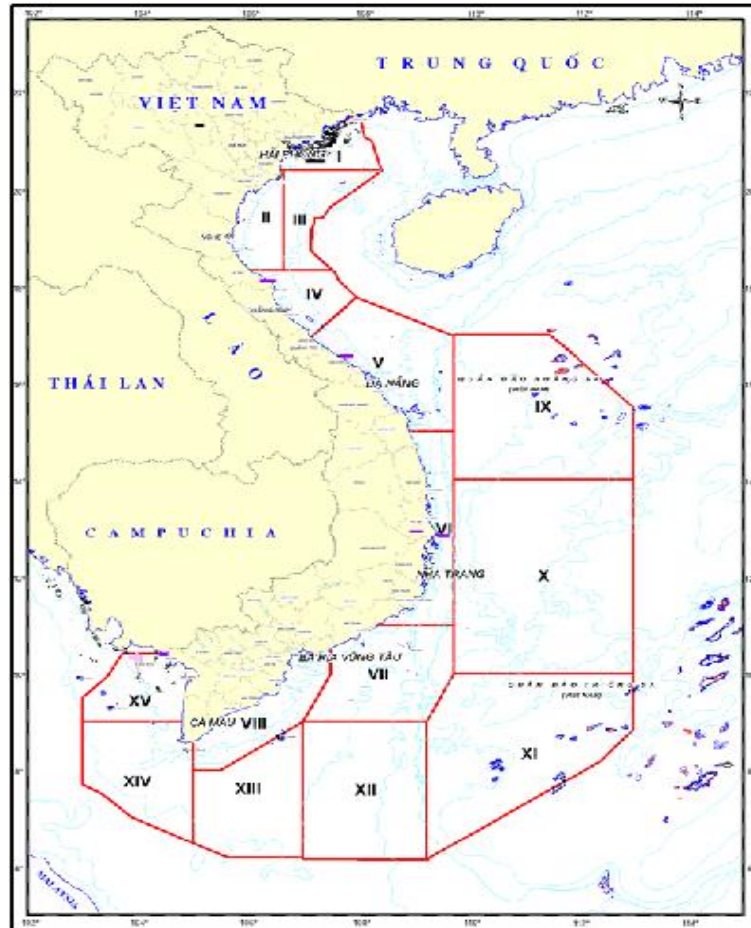


Figure 4: Vietnam's marine ecosystem

(Source: Research institute for marine fisheries, 2019)

Vietnam's sea area has 5 major ecological zones including North, Central, Southeast, Southwest and offshore waters. Vietnam's waters have about 15 typical biological systems (Figure 4), distributed over 1 million square kilometres in the East Sea, with 155,000 hectares of mangrove forests, about 1,300 square kilometres of coral waves, nearly 500 square kilometres of lagoons and about 16,000 ha of seagrass, many intertidal areas and estuaries, with about 11,000 living species, including 6,000 benthic species; 2,038 fish species (there are more than 100 economic fish species); 653

species of seaweed; 657 species of zooplankton; 537 species of phytoplankton; 94 species of mangroves; 225 marine shrimp; 14 species of seagrass; 15 species of sea snakes; 12 species of marine mammals; 5 sea species and 43 water birds (Nhung, 2016). With a long coastline and diverse ecosystems, Vietnam has a lot of resources to develop in the aquaculture and fishing industry now and in the future.

3.2. Overview of Vietnam's seafood industry

Vietnam has important fisheries-related activities, namely aquaculture and fishing.

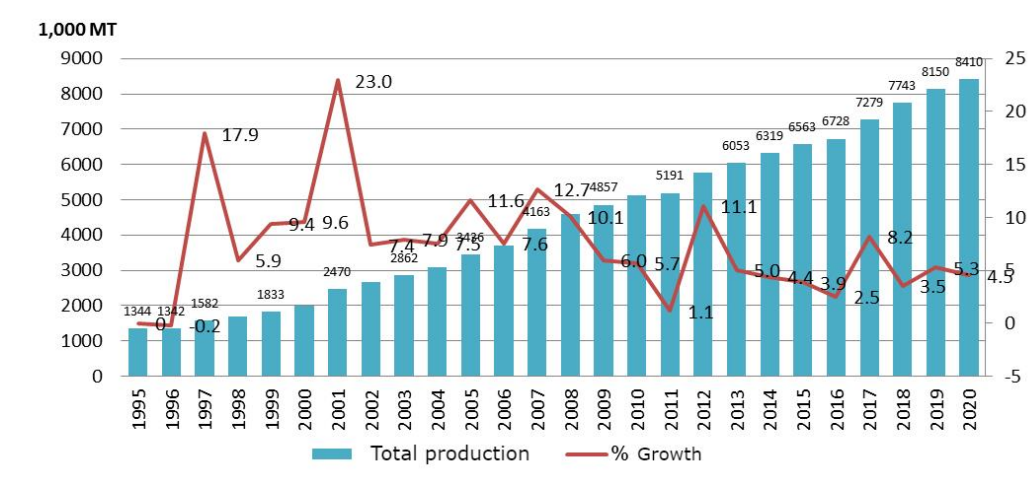


Figure 5: Vietnam's seafood production 1995 – 2020

(Source: VASEP, 2020)

Vietnam's seafood production has maintained a continuous growth for the past 25 years from 1995 to 2020. Vietnam's seafood production has increased very quickly, i.e. 6 times faster than the original. The total production increased from 1.3 million tons to 8.4 million tons after 25 years of development at an average rate of approximately 8% a year.

3.2.1. Overview of aquaculture

Vietnam identifies aquaculture as one of its economic strengths. Vietnam's aquaculture production from 1995 to 2020 has grown very rapidly, approximately 11 times, from 415 thousand tons per year to 4.6 million tons a year or about 10% annually (see Figure 6).

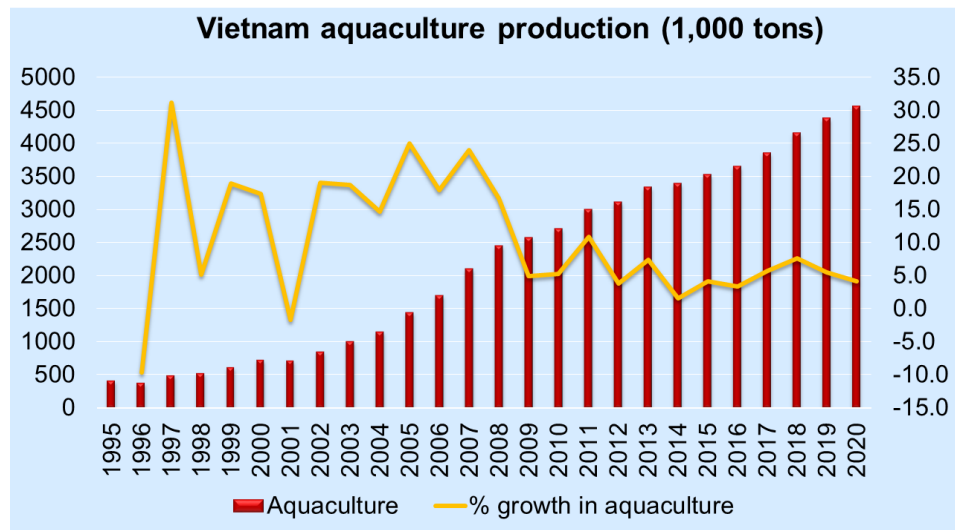


Figure 6: Vietnam aquaculture production

(Source: VASEP, 2020)

3.2.2. Overview capture fisheries

From an underdeveloped, small-scale and low-yield fishery in 1995, Vietnam has moved towards becoming a modern fishery with many boats with advanced technology aimed at the target audience seafood with high commercial value and access to export markets.

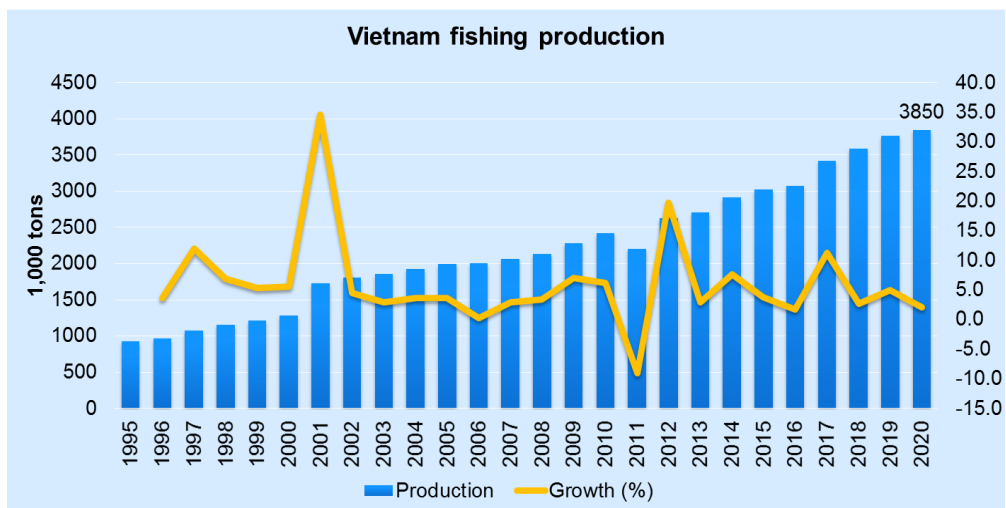


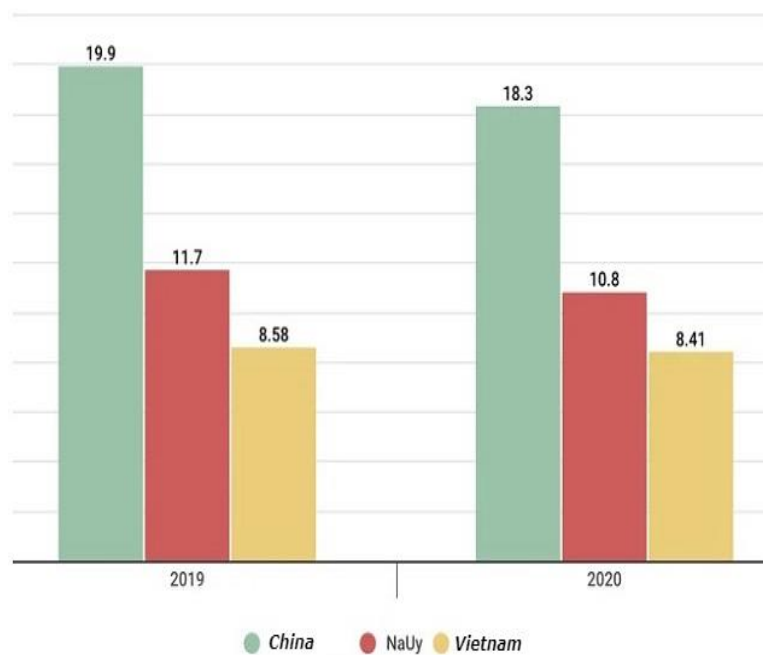
Figure 7: Vietnam fishing production

(Source: VASEP, 2020)

In the past 25 years, from 1995 to 2020, Vietnam's fishing production increased from 929 thousand tons to nearly 4 million tons, which is an average increase of about 6% a year and quadrupled in recent years (see Figure 8).

In short, from artisanal fishing, the fishing sector in Vietnam transformed into an industrial sector which is now inserted into global competition. Present the ratio (seafood exports vs national consumption).

3.3. Fishing economics



Unit: billion USD.

Figure 8: Three largest seafood exporting countries in the world.

(Source: NDH.VN, 2021)

The top three largest seafood exporters in the world in 2019 and 2020 were China, Norway and Vietnam, respectively (see Figure 8). Vietnam's exports in 2020 reached \$8.4 billion, or about 2.45% of GDP, of \$343 billion (General statistics office, 2021).

This proves the vital role of the fisheries sector in the total economic structure of Vietnam. To achieve this, the Vietnamese food industry incomes depend on importing countries.

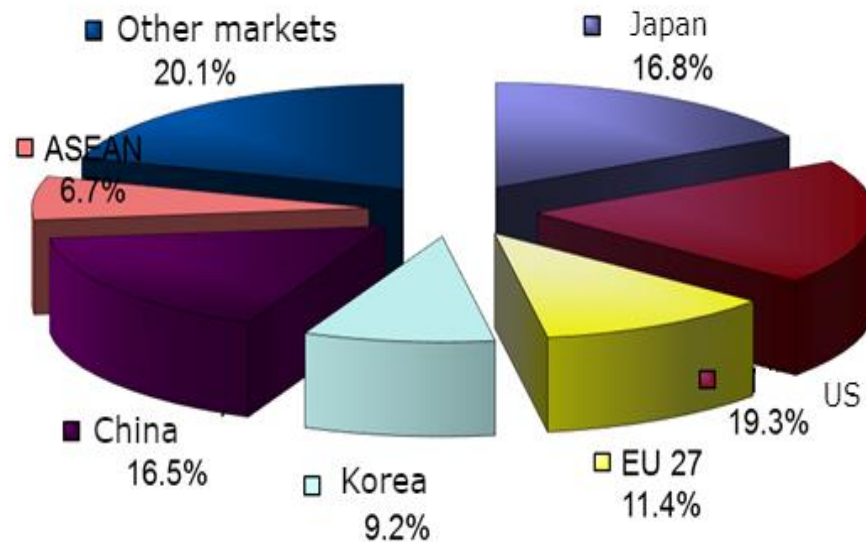


Figure 9: Vietnam's main seafood export market 2020

(Source: VASEP, 2021)

Vietnam exports seafood to more than 160 markets around the world. The top 10 markets include: The United States, the European Union, Japan, China, Korea, ASEAN, Australia, the United Kingdom, Canada, Russia, accounting for about 92-93% of Vietnam's total seafood exports (VASEP, 2021). The top six markets are the US, the EU, Japan, China, Korea and ASEAN (Figure 9). However, in recent years, the exports to the EU have been affected by the European Union's yellow card (reference and date).

3.4. Vietnam's Fisheries Sector

By mid-December 2016, Vietnam had about 33,000 ships with a capacity of over 90 horsepower and 77,000 ships with a capacity of less than 90 horsepower out of a total of 110,000 ships across the country.

By 2020, Vietnam had 94,572 fishing vessels nationwide, a decrease compared to 5 years ago because the fishing industry presents many risks when the seafaring time is long, with many difficulties and challenges for fishermen. There are about 46,000 fishing boats with a length of 6-12 m, about 18,000 ships with a length of 12-15 m, about 28,000 ships with a length of 15--24 m, and about 3 thousand ships with a length of over 24m. Two thousand teams operate with 29.6 thousand fishing vessels and nearly 180,000 workers at sea (VASEP, 2020). This shows that the number of Vietnamese fishing vessels is large and affects the lives of hundreds of thousands of crew members, although the size of the vessels is small and the fishing efficiency is not high.

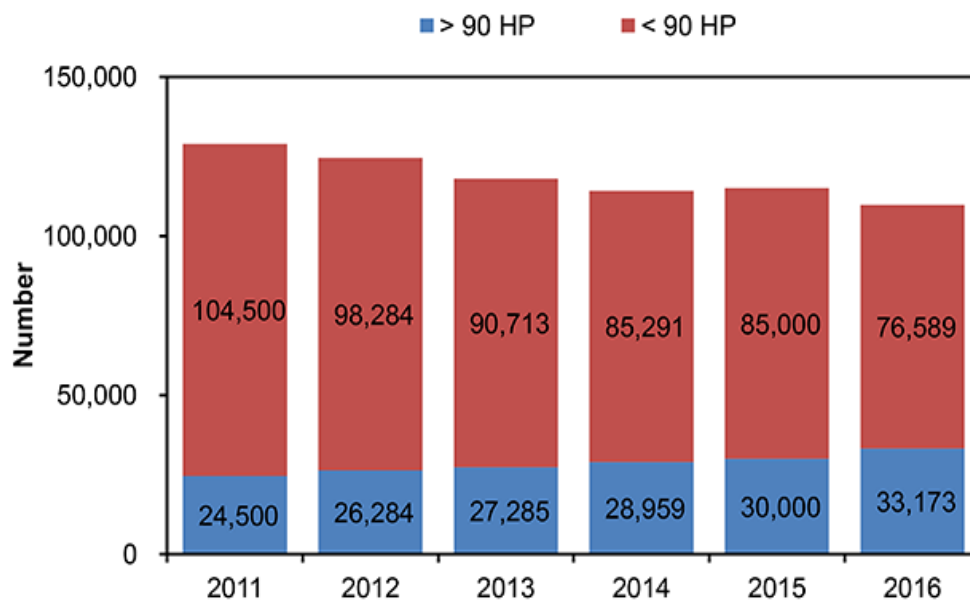


Figure 10: Total number of Vietnamese fishing boats by capacity

(Source: SEAFDEC, 2017)

According to Nguyen Tuan Uyen, Vietnam's fishing vessels are currently mainly wooden ships and are small in size; iron and composite ships account for only a negligible proportion (see Figure 10). According to Wang Tengfei, after the Decree No. 67/2014/ND-CP 2014 of the Government was issued, 1.032 new and large-capacity vessels were built in 2019, along with 2.5 million fishers at sea (Ly Quoc

Tuan, 2016). Vietnam's catch is increasing and far exceeding the existing aquatic resources. Fishery reserves are estimated at 4.7 million tons, but Vietnam annually exploits 3.1-3.2 million tons (Vneconomy, 2019).

3.5. Conclusion of Analysis

With the outstanding efforts of the seafood industry and fishermen, Vietnam has become one of the four largest seafood exporters in the world. Vietnam has joined the group of leading exporting countries in the world with billions of dollars in profits.

However, the excessive race for profit can drive unsustainable and illegal practices such IUU fishing, which affects the resources, the workers, and the country's income and reputation.

CHAPTER 4

4.1. The increase of IUU fishing in the world in general and ASEAN in particular

Illegal, unreported and unregulated fishing is recognized as a major cause of fish overfishing around the world. Illegal fishing around the world is estimated to cost economies between \$10-23.5 billion annually, and illegal fishing accounts for about 20% of catch equivalents- 26 million tons (Cabral et al., 2018; Agnew et al., 2009).

Figure 11 shows the average IUU fishing score globally. The index is a composite of 40 different criteria related to responsibility and category in assessing IUU fishing, created by the global initiative to combat transnational organized crime and a system of non-governmental organizations experts, based in Geneva, and funded by the Norwegian government. There is a marked distribution and variation across countries and locations around the world in terms of IUU fishing scores. Countries with high index are concentrated mainly in Southeast Asian countries or the South China Sea.

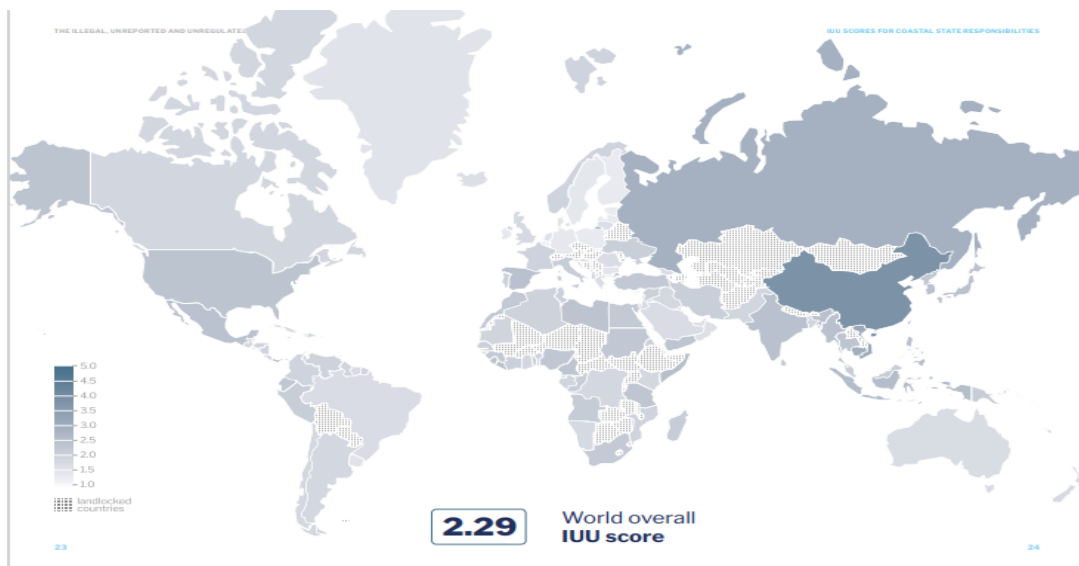


Figure 11: The world overall IUU score

(Source: IUUfishingindex, 2019)

Figure 11 shows the average IUU fishing score globally. The index is a composite of 40 different criteria related to responsibility and category in assessing IUU fishing, created by the global initiative to combat transnational organized crime and a system of non-governmental organizations experts, based in Geneva, and funded by the Norwegian government. There is a marked distribution and variation across countries and locations around the world in terms of IUU fishing scores. Countries with high index are concentrated mainly in Southeast Asian countries or the South China Sea.

Countries/Region	Illegal fishing losses(USD M)
1. Brunei	13
2. Indonesia	3000
3. Malaysia	334
4. Philippines	620
5. Thailand	500
6. Vietnam	1600
7. Africa	1351
8. Europe	1400
9. World	10000-23500

Figure 12: Value lost from IUU fishing in Southeast Asia

(Source: Havoscope, 2019)

4.2. Assessment of the current status of IUU fishing in Vietnam

Vietnam has about 2.5 million fishermen and logistics service people in the East Sea and more than 170,000 fishing vessels engaged in fishing at sea (Baoquocte.vn. 2016). Because of economic benefits, many Vietnamese fishers not only fish in the waters of Vietnam but also violate and illegally fish in the waters of foreign countries. From 2010 to now, 1,340 ships with 11,028 fishers have infringed in foreign waters and illegal fishers have been arrested and handled (Phuong Dien, 2020).

According to the global initiative, Vietnam is currently ranked 5th globally in IUU fishing with an average score of 3.26, after 4 countries: China - 3.93, Taiwan - 3.34, Cambodia - 3.23 and Russia - 3.26 (IUUfishingindex, 2020).

As a leading seafood exporter globally, Vietnam is also among the leading countries in illegal fishing. This negatively affects the global seafood industry in general and many different aspects of Vietnamese society, such as economy, society, national reputation in the world, and especially the marine environment in national waters.

4.3. Environmental Impacts of IUU fishing in Vietnam

To realize the United Nations, target 14 (SDG 14) on the conservation and sustainable use of marine and ocean resources in general (SDGS.UN) and SDG target 14.4 by 2020, member states should end IUU fishing and destructive fishing activities, and after that restore fish stocks in the shortest possible time (Unstats.UN. 2021).

However, IUU fishing not only disrupts national and regional efforts to conserve and manage fisheries resources but also violates rules designed to protect the marine environment and resources from harmful effects of fishing activities. These include restrictions on the harvesting of juveniles, restrictions on equipment established to reduce waste, and fishing of species that are not targeted or harmful to ecosystems regulations, fishing limits, and fishing bans in known spawning areas (Nguyen Thi Hong Yen, 2019).

Studies on the composition of fish caught have shown that the average size of fish has decreased, along with the phenomenon of overfishing. Furthermore, large fish species are being overfished, causing damage to the ecosystem. These large fish species are almost only low value and small species are left in the sea. (Vietnam development report, 2011). The marine environment is also severely damaged because of the large amount of exploitation and loss of biodiversity. In the future, Vietnam's sea area will be seriously affected by the living environment.

4.4. European Union yellow card status for Vietnamese fishing

On October 23, 2017, the European Commission (EC) issued a press release stating that the EU had decided to impose a yellow card on Vietnamese seafood because Vietnam had not fully implemented necessary measures in this regard prevention and eradication of IUU fishing (Nguyen Thi Hong Yen, 2019)

This decision of the EU comes after five years since the Directorate-General for Marine and Fisheries Affairs of the European Commission (DG-MARE) recommended that Vietnam should act to improve the legal system, strengthen inspection and supervision to develop sustainable fisheries and effectively control IUU fishing. In May 2017, DG-MARE continued to suggest that Vietnam implement the following five groups of content by September 2017.

In this Communiqué, the EU stated that Vietnam did not have enough necessary sanctions to prevent IUU activities and did not take necessary actions to prevent Vietnamese fishing vessels and fishers from participating in IUU fishing in Vietnamese waters and other areas, including developing island nations in the Pacific Ocean. Moreover, Vietnam does not have enough tools to control seafood at ports before being exported to other markets, including the EU market (EC, 2017).

After that, the whole political system from the central government, local authorities, associations, fisher communities, and seafood enterprises focused on the fight, implementing drastic solutions to overcome the recommendations of the EC. In particular, fishermen should be defined as preventing and stopping fishing vessels from illegally fishing in foreign waters. The work of certification and certification of the origin of exploited seafood should be the focus. The government, ministries, and the fisheries sector regularly inspect and work with localities to effectively deploy solutions to combat IUU fishing (Le Phuong, 2019).

4.5. Some economic consequences of inadequate management of IUU fishing

After being fined with the IUU yellow card, the value of Vietnam's seafood exports to the EU has suffered many bad impacts. It dropped heavily and will soon affect other major markets such as the US and Japan. In 2019, seafood export turnover to the EU reached nearly 372 million USD (down 4.5% compared to 2018), bringing the total seafood turnover of Vietnam to the EU to nearly 1.3 billion USD (down nearly 12% compared to 2018) (VASEP, 2020).

During the implementation of the penalty by the yellow card, all containers of Vietnam's seafood exports to the EU market were 100% inspected. Shipping time for

these containers is expected to take a lot more time: about 3-4 weeks/container. Along with that is the cost for checking the origin of goods, which is 500 pounds/container and many other costs incurred. However, the most serious thing is that the goods and containers are refused, returned and cannot be cleared into the European market, losing a lot of transportation, storage and return costs, resulting in heavy losses for the customers' export enterprises and Vietnam's seafood industry (Thu Trang, 2020).

The EU market from the second position in Vietnam's seafood exports has slipped to the fifth position, and the share of the market has decreased from 18% to 13%. Not only that, businesses said that the customs clearance inspection process for seafood shipments imported to the EU has also become more stringent, ie from 7-10 days, even up to 20 days (VASEP, 2020).

4.6. Some social impacts of IUU fishing

IUU fishing threatens food security and sustainability and undermines efforts to reduce global poverty and malnutrition, especially in developing countries like Vietnam. At the same time, IUU fishing also affects livelihoods and contributes to the increased risk of conflicts between small-scale enterprises and fishers. As of 2017, the total number of fishing vessels nationwide is 110,950, of which there are 108,619 exploitation ships (accounting for 97.89%), service ships 2,331 (accounting for 2.11%); achieved a fishing output of 3.6 million tons, bringing the export value of 2.5 billion USD (Le Khac Dai, 2020). Along with that, hundreds of thousands of formal and informal workers participate in seafood exploitation and processing activities. Due to difficulties in export activities, the economic life of fishers and dependent workers also has many negative impacts, adversely affecting the social life of millions of fishers and fishing companies.

4.6.1. The reputation of Vietnam's fisheries sector and the country

The Directorate of Fisheries (Ministry of Agriculture and Rural Development) said that although the Government, ministries, central branches, provinces and cities have implemented measures to tackle IUU fishing as recommended by the EC, they cannot meet the requirements. Especially, the situation of Vietnamese fishing vessels

illegally fishing in foreign waters tends to increase. The number of illegal fishing cases by Vietnamese fishers has been increasing, directly and negatively affecting the reputation of the Vietnamese nation in the regional and international markets. Specifically, in 2018, coastal provinces and cities recorded 85 incidents, including 137 ships and 1,162 fishers violating foreign waters, which is an increase of 28 cases with 46 ships and 379 fishers violating compared to 2017 (Hoang Phan, 2019).

For example, the illegal fishing by Vietnamese boats in the seas of Malaysia in recent years is a warning. The details are as follows:

Major fisheries conflict between Vietnam and Malaysia in 2020			
No.	Time	Location	Events
1	12 March	Terengganu	Malaysia detained one Vietnamese fishing vessel for illegal fishing and arrested 20 crew members.
2	Early March to mid-May	Terengganu	Malaysia expelled a total of 50 Vietnamese fishing boats for illegally crossing the border to fish.
3	2 July	Terengganu	Malaysia detained 2 Vietnamese fishing boats and arrests 27 Vietnamese fishermen in connection with a case worth nearly 2 million ringgit (US\$480,000).
4	18 July	Terengganu	Malaysia detained 7 Vietnamese fishing boats and arrests 83 Vietnamese crew members in connection with nearly 10.5 million ringgit (US\$2.5 million).
5	20 July	Kelantan	Malaysia detained 2 Vietnamese fishing boats, arrests 11 Vietnamese crew members.
6	23 July	Sarawak	Malaysia detained 2 Vietnamese fishing boats and arrests 9 Vietnamese crew members after Vietnamese fishermen attempted to deceive law enforcement officers by using false registration numbers.
7	24 July	Kuching	Malaysia detained 2 Vietnamese fishing boats and arrests 24 Vietnamese fishermen in connection with a case valued at approximately 2.5 million ringgit (US\$600,000).
8	12 August	Kuching	Malaysia detained 2 Vietnamese fishing boats, arrested 20 Vietnamese fishermen and seized an illegal catch of 40 tons of 13,000 liters of diesel fuel valued at approximately 2.5 million ringgit (US\$600,000).
9	16 August	Pulau Mantanani	Malaysia detained a Vietnamese fishing vessel, arrested 25 Vietnamese fishermen and seized 4 tons of illegal fish.
10	16 August	Tok Bali	One Vietnamese fisherman was killed and 12 others were detained following a collision between a Malaysian Maritime Enforcement Agency vessel and a Vietnamese fishing vessel.
11	17 August	Tenggeru and Kelantan Waters	Malaysia detained 9 Vietnamese fishing boats and arrests 111 Vietnamese fishermen.

Figure 13: The situation in the Malaysian sea in the first eight months of 2020.

(Source: Wang Tengfei, 2021)

Malaysia arrested a total of 748 vessels and 7,203 Vietnamese fishers for IUU fishing in Malaysian waters between 2006 and 2019 (Wang Tengfei, 2021). At the same time, in the first 8 months of 2020, 78 Vietnamese ships were arrested with 330 crew members in Malaysian waters (see Figure 13), which shows that illegal fishing by Vietnamese fishers is still happening creating huge and many serious problems.

Such incidents and insufficient measures will affect the ability to remove the yellow card of Vietnam's seafood industry in the future, and profoundly affecting the entire seafood export industry of Vietnam.

4.6.2. The reputation of Vietnam's yellow card

After receiving the European Union's yellow card in 2017, Vietnam will be included in the list of countries that violate IUU fishing and will be published in EU magazines and websites. This will seriously affect the reputation and brand of Vietnamese seafood in the regional and international markets. At the same time, if the yellow card situation is not quickly improved, Vietnam's seafood will be affected. Additionally, on-going IUU fishing activities may decide that the EU should issue a red card. It would signify the banning of exports to the EU market and gradually loss of large markets such as the US and Japan.

As a country standing in the top five of the world's largest seafood exporting countries, Vietnam has a great responsibility and role in producing and exporting seafood.

4.7. Conclusion of analysis

In recent years, Vietnam's seafood industry has made many important steps in producing and exporting seafood to regional countries and the world. Vietnam has been among the leading seafood exporters globally - a strength and pride of a developing country in Southeast Asia. However, the flip side of this strong development is that IUU fishing is also increasing rapidly. Vietnam is also right in the top countries globally regarding illegal fishing, and Vietnamese fishers are being punished. Arrests in regional waters are increasing. Economic, social, and

environmental factors are the three most heavily affected and have the greatest impact on IUU fishing.

The Government, ministries and sectors need to have strong and timely solutions to tackle this illegal fishing situation, especially increasing fines for illegal fishing crews and companies and educate fishermen to catch fish according to regulations. The strongest measure is to reduce fisheries subsidies so that fishermen can only exploit within the allowed resources and not exceed the natural fish stocks.

CHAPTER 5

5.1. The definition and object of fisheries subsidies

Currently, there is no unified definition of fisheries subsidies. The WTO does not provide an official definition of fisheries subsidies but defines subsidies as “[...] financial contribution by a government or any public body within the territory of a Member” or “[...] any form of income or price support in the sense of Article XVI of GATT 1994” – (in the agreement on subsidies and countervailing measures - SCM Agreement).

For the FAO, “Fisheries subsidies are government actions or inactions outside of normal practices that modify – by increasing or decreasing – the potential profits by the legal industry in the short, medium or long -term”.

With a broader understanding than the WTO's, FAO confirms that fisheries subsidies can exist in many different forms with heterogeneous impacts on the conservation of fisheries resources.

Fishery subsidies are divided into many groups and objectives depending on the classification chosen. The United Nations environment program divides fisheries subsidies into eight groups (UNEP,.org. 2004):

- **Subsidies for capital expenditures:** are subsidies related to borrowing capital to expand or improve fishing fleets, creating incentives for fishing vessel owners to increase their fishing capacity. Examples: grants and loans for fleet renewal and improvement; grants to develop seafood companies, aid to shipyards.

- **Subsidies for access to foreign countries waters.** Governments support national fleet to purchase access to foreign waters, thereby creating incentives for international fishing.

- **Subsidies for variable costs** are subsidies to reduce the cost of fuel and fishing gear. These subsidies will help fishing boat owners to reduce the cost of each catch. In particular, fuel-related subsidies increase fishing effort by encourage fishing

vessels to stay at sea longer and further away and promoting larger tonnage and powerful engines. For example, fuel tax exemption and reduction for boats, income tax reduction for fishers and fishing vessel owners, ship insurance support, and transportation allowance.

- **Income support subsidies** are government interventions to ensure fishers receive a reliable income, regardless of fishing conditions and regulations, including unemployment insurance. For example: spending more than the norm to increase incomes for workers, fishery workers, specific amounts of support for unemployed fishers.

- **Subsidies for vessel decommissioning and revocation of permits:** Such subsidies intend to reduce excess capacity in the fisheries sector. These subsidies can also lead to ship owners remaining in the industry longer in the hope of receiving decommissioning allowances, or ship owners will use these subsidies to increase investments to increase fishing capacity catch—for example, payment for permanent fishing vessel recall.

- **Subsidies for research and management services:** Grants intended to support part or all of the operational costs of fisheries research and management systems. For example, fisheries management programs and fish stock assessment programs.

- **Subsidies for fisheries infrastructure** are subsidies for the construction and maintenance, maintenance of fishing ports and related facilities. For example, strengthening infrastructure such as opening new shipping lanes, dredging navigation channels, supporting fishery production facilities.

- **Price support subsidies:** Government interventions in the market to ensure a minimum price for fishery products or to compensate local fishermen for losses related to price reductions on the world market. A case in point is that the government supports fishermen and seafood companies to ensure that seafood prices or domestic prices are higher than international prices.

5.2. Advantages and disadvantage of fishing subsidies

Fishery subsidies can be predicted up to \$30 billion by 2009 (Sumaila, UR 2016), and these huge amounts of money will negatively affect many aspects of coastal states. However, subsidies have positive impacts on fishermen's lives such as creating economic development, solving social problems, and reducing the gap between rich and poor in the maritime industry (Tsangalis, 2016). Because coastal people and fishers are mainly poor labourers with low income and rudimentary and inefficient fishing tools, fisheries subsidies have had a huge impact on many coastal people who can improve their income, food security, family stability and access to living conditions better. In addition, the ability to access education and training in fishing skills, courses, and ethics in the profession of coastal fishers also need improvement thanks to these subsidies.

Every year governments spend billions to support the fishing industry, equal to an average of 20% of the total value of all seafood caught at sea (Martini, 2019). However, many of these subsidies lead to many negative, long-term effects on the fishing industry and can lead to IUU fishing.

From 2016 to 2018, the annual aggregated support for the fisheries sector in the 39 countries reporting to the OECD was US\$9.4 billion (OECD Review of Fisheries, 2020). The OECD assessment report looked at the types of subsidies provided by governments around the world and found that fuel assistance was the largest direct policy support. This policy account for 25% of the total, less than a third of the support directed towards reducing input costs, about \$1 billion (\$825.4 million), was used to provide income support or the insurance system, which are effective mechanisms to improve fishers' income, which in turn is less likely to lead to overfishing.

According to OECD research, if the money from current subsidies is shifted from the worst subsidies (such as materials and fuel) to better subsidies such as business and human capital, the impact can be positive for fishers who would add \$2 billion to their annual incomes. They would catch about half a million tons more fish and increase fish stocks significantly in nature (see Figure 14).

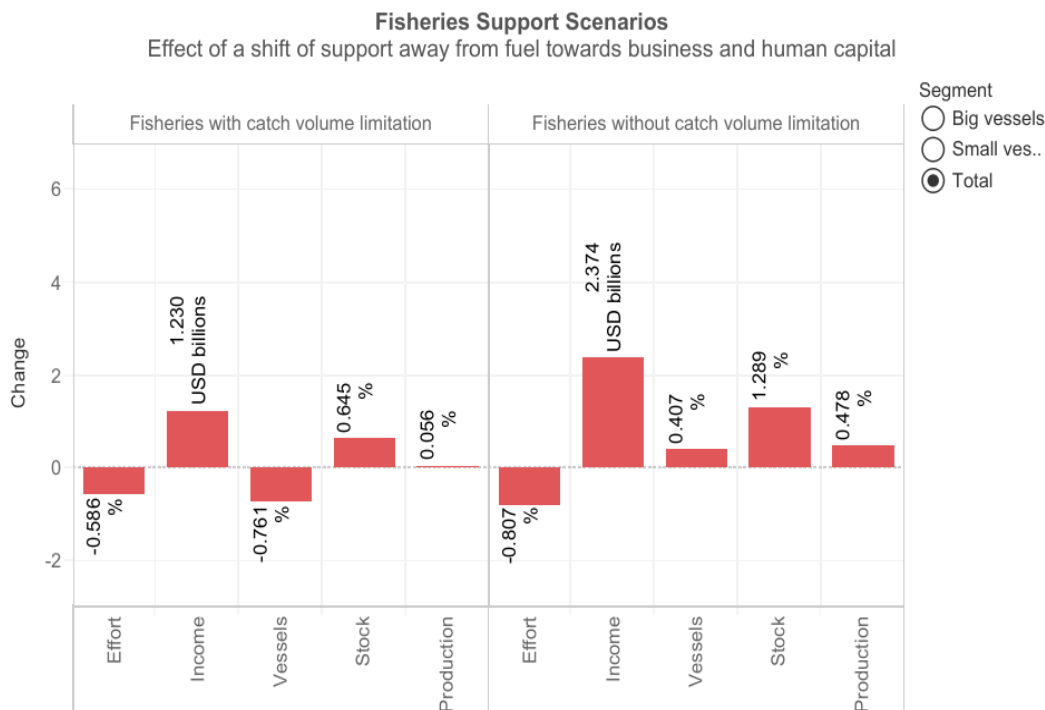


Figure 14: Scenarios to support fisheries

(Source: OECD, 2019)

However, expenditure on management, control and supervision between 2012-2014 and 2016-2018 fell significantly relative to fleet size in some countries and economies, while expenditure on port facilities increased, potentially providing greater docking capacity and encouraging overfishing and IUU fishing (OECD Review of Fisheries. 2020).

Further, fisheries subsidies also support political goals such as protecting the sovereignty of the sea and islands for countries when fishers have conditions to go out to sea to fish. Still, in addition to the target of harvested fish, the target appears regularly in the national waters and asserts the territory is equally important.

If the right goals, purposes, and methods are applied, fisheries support will bring high efficiency to fishers and fishing companies. However, in most countries, supporting fisheries still has many negative points, and many shortcomings need to be improved. Of the total \$27 billion in annual fisheries subsidies, up to \$20 billion is

negative, affecting the global fisheries industry (see Figure 15). This shows that the countries' governments are funding the fisheries not according to the targets and the funding is mainly wrong.

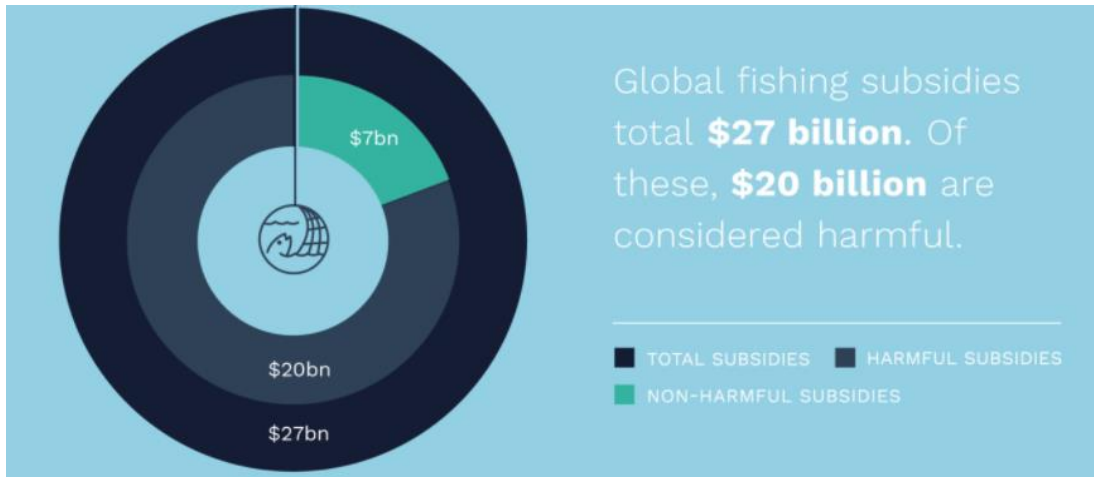


Figure 15: Positive and negative effects of fisheries subsidies

(Source: Chinadialogueocean, 2019)

Regarding the negative impact, today, the coastal countries in the world all subsidize and invest in modern tools and large fishing fleets to go to the ocean. However, the natural seafood output is low many times more than the number of fish that people catch. An average of 40 million fishers worldwide is spending more time and resources catching the same amount of fish as before (Crispino, 2019).

The world population is growing rapidly, and at the same time the demand for food has also increased dramatically. So, seafood resources in the sea are increasingly exhausted because of large ships and the unlimited food needs of people.

According to Figure 16, the world's population increased only from 5.4 billion people to 7.6 billion people corresponding to an annual increase of 1.6%. In addition, the average consumption of seafood increased from 13.4 kg to 20.5 kg per person per year, equivalent to an annual increase of 3.2% from 1986 to 2018. This caused the total annual fish supply (including capture and aquaculture) to increase sharply from 108.8 million tons to 178.5 million tons annually in 32 years. This puts a lot of pressure on the fishing industry and is the main cause of IUU fishing.

	1986–1995	1996–2005	2006–2015	2016	2017	2018
	Average per year					
	<i>(million tonnes, live weight)</i>					
Production						
Capture						
Inland	6.4	8.3	10.6	11.4	11.9	12.0
Marine	80.5	83.0	79.3	78.3	81.2	84.4
Total capture	86.9	91.4	89.8	89.6	93.1	96.4
Aquaculture						
Inland	8.6	19.8	36.8	48.0	49.6	51.3
Marine	6.3	14.4	22.8	28.5	30.0	30.8
Total aquaculture	14.9	34.2	59.7	76.5	79.5	82.1
Total world fisheries and aquaculture	101.8	125.6	149.5	166.1	172.7	178.5
Utilization²						
Human consumption	71.8	98.5	129.2	148.2	152.9	156.4
Non-food uses	29.9	27.1	20.3	17.9	19.7	22.2
Population (billions) ³	5.4	6.2	7.0	7.5	7.5	7.6
Per capita apparent consumption (kg)	13.4	15.9	18.4	19.9	20.3	20.5
Trade						
Fish exports – in quantity	34.9	46.7	56.7	59.5	64.9	67.1
<i>Share of exports in total production</i>	<i>34.3%</i>	<i>37.2%</i>	<i>37.9%</i>	<i>35.8%</i>	<i>37.6%</i>	<i>37.6%</i>
Fish exports – in value (USD billions)	37.0	59.6	117.1	142.6	156.0	164.1

Figure 16: Status of world seafood production and trade

(Source: FAO, 2020)

Furthermore, fisheries subsidies also bring a huge difference to the parties receiving this money because 85% of the benefits this brings benefits for large fleets. The remaining 15% of the subsidies benefit small-scale organizations but account for 90% of the total number of fishermen and 30% of the catch (Mukhisa Kituyi, 2018).

Most of the current fisheries subsidies fail in supporting poor coastal fishers. The subsidies do not provide better opportunity to access capital and enhance income. The subsidies widen the gap between the rich and the poor and promote the development of large industrial fishing fleets. As a result, overfishing and unsustainable practices such as IUU fishing are increasing everywhere.

Finally, fisheries subsidies in developed countries cause unfair competition. For example, small-scale fishers in West Africa and the South Pacific are competing with heavily subsidized foreign corporations operating industrial fleets (Mukhisa Kituyi. 2018). The situation affects the livelihood of these coastal countries, which depend mainly on fishing.

5.3. Impacts of subsidies on IUU fishing

According to the Food and Agriculture Organization of the United Nations (FAO), out of 600 fish stocks worldwide, 33% are overfished or depleted. Most of the remaining fish stocks are limited in the world (FAO, 2020).

Fisheries support such as lower operating costs for fishers, support for fuel, equipment and transport vessels at a cheaper cost increase fishing effort and competition lowering market prices and depleting marine resources. At the same time, most fishers see their incomes reducing because subsidies foster larger fishing companies but has a detrimental effect on vulnerable small-scale fishers.

In 2018, two authors, Roger Martini and James Innes, analysed six common forms of global fisheries support using bio economic models. The results are that all fisheries subsidies can dramatically increase illegal fishing, leading to overfished fish stocks and a major cause of IUU fishing. Research also shows that support based on reducing input costs of fishers and fishing companies causes the largest increase in fishing effort and is the source of fishing illegally because fishers have many fishing resources.

5.4. International efforts to eliminate fisheries subsidies

The Food and Agriculture Organization of the United Nations (FAO), the OECD and other bodies have long recognized the detrimental impact of fisheries subsidies.

Therefore, the FAO incorporated this dimension in its instruments related to fisheries management and IUU fishing, such as the FAO Code of Conduct for

Responsible Fisheries 1995 and the FAO's international action plan for preventing and eliminating IUU fishing (IPOA-IUU).

Additionally, the FAO collects information to analyse the contributing factors to overcapacity in fisheries, including fisheries subsidies. At the same time, FAO requires that the member states, when developing national plans for fisheries management, should assess their impact on overfishing. Furthermore, FAO recommends that countries reduce and eliminate all subsidies and economic incentives that contribute directly or indirectly to overfishing, undermining the sustainability of marine natural resources, which is a major driver of IUU fishing (FAO, 1999). Finally, in the international action plan, FAO recommends that, within the scope of national legislation, countries should avoid economic assistance, including subsidies for vessels, organizations and individuals related to IUU fishing (FAO, 2001).

OECD fishing subsidies rules

The OECD fisheries committee introduced the concept of “economic support” in 1993 (OECD, 1993). The Commission has undertaken work to measure the economic support in supply to the fisheries sector of the Member States this year. The OECD notes that supporting fisheries beyond conventional subsidy programs, such as shipbuilding, vessel modernization, and fuel price support has improved the lives of fishers and processors and attracts workers to join the industry. These are the positive effects of fisheries subsidies and include the following four main measures: Market price support, direct and indirect income support and other support (Cox, 2002).

However, in 2001, the OECD ministerial conference asked the secretariat to work on ways to overcome difficulties with reform policies and find better tools for markets to reduce harmful subsidies to the environment (Cox, 2002). Then, based on the analysis using this tool, the OECD members engaged in further research. As a result, in 2002, the ministers of the OECD member countries renewed their commitment to reducing fisheries subsidies (OECD, 2002).

SDGs and WTO negotiations on fisheries subsidies

A major step towards the elimination of harmful subsidies has been initiated with the adaption of sustainable development goals and the negotiations at the WTO.

In 2015, the United Nations adopted 17 sustainable development goals (SDGs) for the world for 2015-2030. The SDGs have been designed to end poverty, protect and ensure peace and prosperity by 2030.

Among them, the SDG target 14.6 intends to “prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, and eliminate subsidies that contribute to IUU fishing [...]” and affirms the WTO's central role in the global fisheries subsidies’ agenda.

According to the Organization for Economic Co-operation and Development governments continue to disburse about \$35 billion in fisheries subsidies and two-thirds of this goes to commercial fishermen. This is the main cause of depletion of fish resources, threatening food security of coastal communities, negatively impacting poor and vulnerable fishermen, and affecting global seafood resources.

Members of the WTO recognized that fisheries subsidies are the most urgent issue that needs to be addressed today; therefore, state members are negotiating to ban harmful subsidies. World leaders have given the WTO the important task of fixing the rules and reaching an agreement to eliminate fisheries subsidies affecting IUU fishing (WTO, 2021).

World political leaders and trade ministers from WTO member countries have recognized the danger and seriousness of the issue and agreed to create an agreement on fisheries subsidies by 2020 to contribute to the sustainable development agenda.

Negotiations have come to a standstill several times but have returned in 2021. The president of the negotiations, Santiago Wills from Colombia, has been working with member countries, and the goal is for WTO countries to have a fisheries subsidy agreement in time for the United Nations biodiversity conference and in October (Ngozi Okonjo-Iweala, 2021).

However, the participating countries and the countries that oppose the agreement are having a lot of conflicts because the WTO is not an organization that regulates seafood. In addition, fish resource management is not only the domain of one country but cooperation with countries together. At the same time, WTO negotiators must consider both the current legal frameworks of international fisheries' rules and the role of agencies governing fishing in various respects and roles. In addition, agreement makers must determine how the new subsidy rules will apply to offshore fishing vessels.

Furthermore, one of the biggest challenges of the negotiated agreement is how to define and respect the original mandate of ensuring fair treatment between developing countries and in particular underdeveloped countries. In addition, there is transparency when member countries issue notices to deploy appropriate subsidies to develop fisheries rather than increase IUU fishing.

On 15 July 2021, at a meeting of 104 ministers and heads of countries' delegations organized by the WTO, members pledged to conclude negotiations soon and certainly by December 2021 on a new agreement for the global fisheries sector and to limit government subsidies (WTO, 2021). These negotiations have been going on for 20 years – a rather long time, but the magnitude of this agreement affecting the global fisheries should be actively progressing.

The content of negotiations on fisheries subsidies in the WTO is based on relevant international legal documents¹,

¹ The most important are the 1982 United Nations Convention on the Law of the Sea, the Agreement on the Implementation of Regulations of the 1982 United Nations Convention on the Law of the Sea concerning the conservation and management of highly migratory fish stocks 1995; Food and Agriculture Organization of the United Nations (FAO) Agreements such as the FAO Agreement for the Promotion of Fishing Vessels in International Seas to comply with International Measures for Conservation and Management of 1993, FAO Agreement on Port State Measures to Prevent and Eliminate IUU Fishing. The contents of the negotiations also referenced several FAO guidelines related to IUU fishing, such as the 1995 FAO Code of Conduct for Responsible Fisheries; FAO International Action Plan for the Prevention and Elimination of IUU Fishing (VASEP. 2021)

According to the WTO, the main contents of the agreement being drafted by the WTO include 11 articles (WTO, 2021), which stipulate that no member country may maintain or grant fisheries subsidies that may promote IUU fishing or cause overcapacity or overfishing².

In addition, a committee consisting of members who are representatives from the participating countries will be established. A chairperson should be elected, and the committee should hold meetings not less than twice a year. Members should annually notify the committee of any vessels and operators engaged in IUU fishing, as well as fisheries accessing agreements with government agencies or other governments and information regarding the embargo of fishing vessels and measures to prevent IUU fishing.

² Example: subsidies for construction, acquisition, modernization of vessels; purchase equipment and machinery for ships such as equipment, engines, technology for fishing; fuel subsidies for fishing vessels; fishing price support, etc.

CHAPTER 6

Seafood is one of the most critical industries in Vietnam, so the government has many laws and policies to subsidise fisheries to give fishers and businesses the ability to develop fishing vigorously. However, there are also many impacts on fish resources, economy and environment in the sea, which are considered in the following:

6.1. Government of Vietnam regulations on fisheries subsidies

One of the views of the Government of Vietnam in developing fisheries is to create a commodity production industry, with a prestigious brand, with high competitiveness in international economic integration. These advantages are based on promoting advantages of the manufacturing industry - exploitation of renewable resources, benefits of tropical fisheries. Ultimately, seafood products can penetrate international trade and generate foreign currency incomes.

On July 7, 2014, the Government issued Decree No. 67/2014/ND-CP and Decree 17/2018/ND-CP amending and supplementing several articles of the Government's Decree No. 67/2014/ND-CP dated July 7, 2014 - Several Policies on Fisheries Development Policies in order to comprehensively, systematically and synchronously regulates fundamental policies for the development of the fisheries sector.

These decrees formulate policies on building infrastructure for fishing, including fishing ports and fishing wharves; credit policy; working capital loan policy; and hull insurance policy, crew insurance policy.

In short, Vietnam intends to boost fishing effort by encouraging fishers to build large-capacity steel-shell/new-material ships with preferential interest rates to gradually switch from near-shore fishing to offshore fishing with higher economic value. At the same time, the productivity and efficiency of fishing will be increased with modern technologies and significantly improved fishing resources due to new investment and support policies.

The Decree outlines **six main policies** as follows:

1. Investment policies:

+ Investments in ports:

The central budget invests 100% of the budget in constructing a grade I fishing port³ and 100% of the investment in infrastructure construction for the concentrated aquaculture area on the sea.

The central budget is fully invested in constructing essential items of class I fishing ports, regional storm shelters, and investment in the construction of five major fisheries centers.

+ Investments to support shipowners:

Shipowners decide on their loans, selection of ship models, machinery and equipment, fishing nets, and shipyards to invest in building and upgrading fishing vessels with marine logistics services offshore products. Shipowners should follow the law to refund the loan capital and loan interest to build new fishing vessels and logistics service ships for offshore fishing. In addition, the shipowners should decide the loan amount and term lower than specified in Article 4 of this Decree and have the right to repay the loan early.

The Decree supplements regulations on one-time support policies after investment. Supported subjects are owners of newly-built ships and offshore fishing vessels or offshore fishing logistics service ships with a total minimum main engine capacity of 800 CV. The number of ships allocated by the Ministry of Agriculture and Rural Development to the provinces; Newly built ships should replace trawlers with a capacity of 90CV or more.

³ Grade I fishing port: a port to attract ships of many centrally-run cities, water ships, and a focal point for regional seafood distribution. The port has an area of 4ha or more and the annual volume of goods passing through the port is over 25,000 tons (Law on Fisheries 18/2017/QH14, 2017)

Regarding the level of support, the Decree clearly states that, for fishing vessels and logistics service ships for seafood exploitation with new steel shells (including new equipment): Fishing vessels with a total main engine capacity of 800CV up to less than 1,000CV, ship owners are supported with 35% of the investment value in new construction but not more than 6.7 billion VND/ship. For fishing vessels with a total main engine capacity of 1,000CV or more, ship owners are supported with 35% of the value of the investment in new construction but not exceeding VND 8 billion/ship.

For fishing vessels, marine logistics service ships built with composite shells with a capacity of 800CV or more (including new equipment), ship owners are supported with 35% of the value of the investment in new construction but not more than 6.7 billion VND/vessel.

2. Credit policy: Shipowners can borrow loans from commercial banks up to 95% of the total value of an investment in new construction at an interest rate of 7%/year, of which shipowners pay 1%/year, provided by the state budget, compensation 6%/year (building steel-hulled ships). There is a mechanism to deal with risks and having a working capital loan policy (loan interest rate is 7%/year in the first year from the loan signing date).

The Decree also adds regulations on risk handling managing. Accordingly, the Decree allows the implementation of the mechanism to change the shipowners if they are no longer able to build new or upgrade ships or have completed the new construction but cannot continue the project. New shipowners enjoy interest rate support when handing over ships and loans from old ship owners in fishing activities.

The working capital lending policy also revises. Credit institutions and customers should agree on working capital lending following current credit policy regulations.

3. Insurance policy: The State budget support ship owners annually to buy insurance for the hull, equipment, fishing gear on each ship (all risks insurance). The support amount is 90% of the insurance cost for vessels with a total main engine

capacity of 400CV or more. This is another subsidy to support the risks of fishing operations.

The state budget supports insurance for offshore fishing vessels, offshore fishing logistics service ships consisting of fishing teams, trade unions, and fishing cooperatives. Specifically, it gives 100% annual support to buy crew accident insurance for each crew member working onboard and annual support of 50% of the cost of buying hull insurance (insurance for all risks to the hull, excluding fishing equipment, fishing gear onboard).

4. Tax incentives: Various preferential policies include exemption from land rent and water surface rent used for aquaculture and seafood activities of organizations, households, and individuals. Wild-caught seafood is exempt from tax, registration fees for fishing vessels are exempt.

The government exempts 100% of the license tax for individuals, organisations, and households in aquaculture, fishing, and fishing support services. In addition, sold seafood products are exempt from value-added tax, ship insurance, and equipment directly serving fishing. In particular, the importation tax on machinery, equipment, tools that cannot be produced domestically to build and upgrade ships with a total capacity of 400CV or more.

5. Support 100% of training costs to guide crew members to operate steel-hulled ships and new-material ships; provide technical guidance on exploitation and preservation of products according to new technologies for ships with a total main engine capacity of 400CV or more. With this support, seafarers quickly access the latest technologies, advanced fishing techniques, and the ability to safely and long-term fish storage on board. This creates many advantages for fishers as well as ship owners in exploiting and fishing offshore.

6. The cost of transporting goods from the mainland to offshore fishing vessels and transporting offshore fishing products to the mainland for offshore fishing logistics service ships is supported. The support level is 40 million VND/trip for ships with total main engine capacity from 400CV to 800CV; from 60 million VND/trip for ships

with a total main engine capacity of 800CV or more and supports up to 10 sea trips/year. Conditions to receive this support include: The fishing logistics service ship is a member of cooperatives and fishing organizations, which must have regular registration of fishing support service activities in the locality or place of residence, certified by military units stationed on the islands through the Global Positioning System (GPS) of the authorities. In addition, these ships need certification from the owner of the offshore fishing vessel and a detailed log of each sea trip for the local fisheries management agency.

In addition to the government's regulations on fisheries subsidies, relevant ministries and sectors have also implemented guiding documents such as Circular 117/2014/TT-BTC on fisheries development policies issued by the Minister of Finance; Circular 114/2014/TT-BTC guiding the grant of interest compensation for the implementation of credit policies on fisheries development policies issued by the Minister of Finance; Circular 22/2014/TT-NHNN guiding the implementation of credit policies on fisheries development policies issued by the Governor of the State Bank of Vietnam. These circulars are guidelines for the implementation of Decree 67/2014/ND-CP on fisheries development policies.

There are many positive points that subsidy policy supports, namely investment in building fishing ports and new ships in addition to financial loans to purchase equipment on board. Along with that, tax and insurance policies effectively support fishers and ship owners with the opportunity to develop offshore fishing, improve fishing efficiency and investment scale. Although there are advantages, disadvantages are also evident. For instance, when the quality and quantity of fishing gear of fishers and shipowners increase significantly, according to Decree No. 67/2014/ND-CP, the fishing yield will increase sharply, which is also the leading cause of overfishing of fish resources is one of the main problems of IUU fishing.

6.2. Implementation of fisheries subsidy regulations

After five years of implementing the Decree, the goal of modernization of fishing vessels has initially been achieved, but the number of fishing vessels near shore has decreased (13.2%). The number of fishing vessels fishing offshore has increased

(20%); nearly 50% are new ships with steel hulls and new shells, with about 50% of ships with a capacity of 800CV or more equipped with modern equipment (Manh Hung, 2019), contributing to promoting the shell fishing industry: steel, new material development.

The fishing activities began to change towards the industrial direction improving the working and living conditions of crew members, reducing fishing vessel accidents, and helping fishers feel secure in their production (Manh Hung, 2019). Many production linkage models at sea have been established and are actively contributing to the protection of national security and sovereignty at sea. However, the transformation may have improved the sector's working conditions, but the lack of data on the working conditions makes it difficult to ascertain.

Current difficulties

However, the implementation of the Decree still faces many problems such as degraded fisheries infrastructure, overloaded fishing and lack of modern fisheries infrastructure. Under the support of this decree, the quality of shipbuilding is not good because fishers are given too high incentives and do not have many binding obligations when receiving incentives (Thanh Quang, 2019). The awareness of fishers about the use, maintenance, and maintenance of steel-hulled fishing vessels is limited and outdated. The number and quality of crew members have not met the requirements. The ratio of overdue and bad debt is high (overdue debt is 537.8 billion, accounting for 4.67% of total loans, bad debt is 3,430 accounting for 33% of total loans (Manh Hung, 2019)). The State supports many capital sources for fishers and ship owners to build new ships; however, fishers' ability to use these financial resources is limited. Vietnamese fishers are often born in coastal areas and are very rarely financially trained but often go to sea from a very young age (Kim So, 2019). Therefore, they do not use good and effective financial resources. As a result, the rate of overdue debt and bad debt is high, making it difficult to repay when this subsidy is not used effectively.

The above problems and inadequacies suggest:

- Lack of and asynchronous allocation of budget for investment in fisheries infrastructure;

- Approval of the list of ship owners eligible for loans is still not tight leaving many unqualified ship owners getting loans to build ships;

- Appraisal and approval of production and business plans should be improved, especially the assessment of factors affecting production and business efficiency;

- Some fishers think that this is the state's support money, so they have the idea of taking advantage, delaying, not paying, or prolonging the repayment period;

- Fishers lack knowledge about steel-hulled ships, and lack of skills in exploiting and operating modern equipment.

In recent years, the government has continuously made decisions and policies to support aquaculture and fishing. Specifically, on June 14, 2021, the Prime Minister issued Decision No. 930/QĐ-TTg on additional funding for implementing some fisheries development policies. Accordingly, the Government agreed on a support mechanism from the central budget for local budgets to implement several fisheries development policies according to Decree No. 17/2018/ND-CP dated February 2, 2018, of the Government (including the cost of training, maintenance, and periodic repair of steel-hulled fishing vessels; insurance policy and one-time support policy after investment for 2018, 2019, 2020). Additional funding is 462,095 million VND (20,3 million dollars), which is deducted from the central budget for 27 localities to implement fisheries development policies from 2015 to 2019 (Pham Dong, 2021).

6.3. The impact of laws and policies on the fisheries sector and IUU fishing

Vietnam's fisheries laws and policies on subsidies have undergone many changes in recent years, as shown in the following table:

Year	Projects/programs	Sources of information	Total value
1997-2001	Credit for off-shore fishing program	MOFI	1.300 bill VND (~94 mill USD)
1996-2000	Government subsidies for basic infrastructure of the fisheries sector (included all above); Of which for capture fisheries (estimated 30%):	MOFI	1.750.600 mill VND 525.180 mill VND
2000-2005	Government subsidies for basic infrastructure of the fisheries sector (included all above); Of which for capture fisheries (25%):	MOFI	6.830.910 mill VND 170.978 mill VND
2005 -2008	Removal of resources tax (2-10% depending on the level of catch and gear types) and revenue tax. Fuel subsidies for fishing vessels due to an increase in the fuel price	NADAREP/ MARD	1600 bill VND (~91 mill USD)
2006-2010	Fishing port and storm shelter centre program	MOFI	1934.1 Bill VND (~150.693.250 USD)
2009-2012	Fisheries Information Management	MARD	450 billion VND (~26.5000.000 USD)
2005-2015	Fishing port, landing sites, fish market	MARD	3044.5 bill VND (~169.000.000 USD)

Figure 17: Overview of Vietnam's seafood subsidies from 1997 to 2015

(Source: Tuong Phi Lai, 2009)

Based on the above data table, Vietnam, as a developing country, has spent some key resources to develop and support the fisheries sector in recent years. However, among the subsidies to the fisheries sector, only the fisheries management information subsidy is about US\$26.5 million; Fishing ports and storm shelters of about US\$150 million are good subsidies for the fisheries sector. Meanwhile, subsidies have a significant risk of increasing fishing capacity or the leading cause of IUU fishing such as fuel subsidies for fishing vessels: \$91 million, credit subsidies for the program offshore fishing: \$94 million, subsidies for fishing ports, landing sites, and fish

markets: \$169 million for the period of 2005-2015 and other subsidies. This has resulted in significant impacts on Vietnam's fisheries. The main impacts are outlined below in the Figure 18.

The Vietnamese subsidies prioritized, in order, the following fishing related sectors: ports and shelter; credit for the off-shore fishing program; resources tax; basic infrastructure; fisheries management. Therefore, Figure 17 shows that the economic efforts of the Vietnamese government promote trade and business more than fisheries resource management. Tuong Phi Lai (2009) suggests that pre-2009 subsidies have significant detrimental effects on the sector, as listed in his analysis.

Type of subsidies	Impacts on resources
Credits for off-shore fishing	Increases fishing efforts for off-shore and near-shore Some off-shore vessels go back to the coastal areas to fish due to the difficulty to find fish off-shore and because of the high cost
Fuel subsidies (both near shore and offshore)	Recovery of decommissioned vessels to continue fishing, otherwise they will disappear from the sector More small-vessels operate in the coastal area, more harm to the resources Small-vessels get more than large vessels, more small vessels increased since they expected to get more in the future
Tax & revenue	Losing responsibility of fishers on resource protection (no payment on resources tax)
Infrastructure development (fishing port and storm shelters)	Regardless of the management system, no effect on decisions on capacity and effort, but marginal effects on entrance into and exit from the industry (Porter, 2004). Impacts more on food safety & hygiene rather than resources
Science & technology	Improved selected fishing, better for the resource sustainability through the application of advanced technology and science based fisheries management
MPA network	Improve resources recovery & generation through habitat conservation Fishing pressure may be transferred to areas not in the MPA Network (i.e. no parallel objectives to reduce fishing effort together with establishing protected areas)
Open access	No control of vessels entry, contributes to overfishing
Export promotion	Too many processing plants, pressure to over harvest to meet goals, contributes to overfishing if no import of raw materials
Improve management	Support better fisheries management

Figure 19: The main impacts of fisheries subsidy policies in Vietnam

(Source: Tuong Phi Lai, 2009)

Vietnam's fisheries subsidies affect fishers and fishing companies in many ways. On the positive side, these fisheries subsidies will help the state to better manage the fisheries, such as developing seaport infrastructure and better management. However, there are many adverse effects from fisheries subsidies, such as subsidies on fuel for ships, income tax allowance for seafarers, open access and credits to fishers, which all lead to IUU fishing (Martini & Innes, 2018).

Vietnam's fishing industry and exportation are in the leading group of the world. However, many solutions to reduce fisheries subsidies need to be put in place shortly so that Vietnam can prepare to participate in WTO negotiations on the elimination of fisheries subsidies. At the same time, decisive management actions are required to reduce IUU fishing so that Vietnam can remove the yellow card of the European Union.

In recent years, Vietnam has provided credit for fisheries support policies, which has gradually increased in size and scope. From 2005 to 2015, the government provided USD 169 million for fishing ports and fish markets, and then continued to provide an additional VND 462,095 million (USD 20.3 million) to 27 localities with needs for marine development produces.

The benefits of these policies and the amount of money affect the lives of fishers and ship owners. Fishers at sea have much more tools and modern equipment than in the past, along with a better-invested preservation system to help fishers stay at sea for longer days. Moreover, the state budget support for new equipment and shipbuilding and the strongly developed fisheries logistics service is also the basis for development (An chi, 2020). However, these same fisheries support policies that lead to IUU fishing. When ship owners and fishermen are equipped with more modern tools, the production increases often, but wild fish production decreases day by day. At the same time, for economic benefits, the fishers are ready to use the powerful tools at hand to catch the maximum amount of fish that the ship can accommodate.

Currently, Vietnam is actively participating in negotiations with WTO members to reduce fisheries subsidies towards Sustainable Development Goal 14.6 of the 2030

Agenda for Sustainable Development United Nations. IUU fishing is affecting on a global scale and will seriously reduce the world's seafood resources in the future. Therefore, as a member of the WTO, Vietnam must strictly implement policies and measures to comply with the conditions in the negotiations to reduce fisheries subsidies.

Due to the negative effects of fisheries subsidies, this is the primary and strong motivation for the Vietnamese government to introduce revised laws and policies and minimize fisheries subsidies in the coming time. There should be many overall solutions from the government, ministries, and people across Vietnam to jointly solve the problem of fisheries subsidies in particular and IUU fishing in general.

CHAPTER 7

From the above facts of Vietnam's fisheries subsidies, many urgent and long-term solutions for the government, ship owners and fishermen need to be implemented soon. The most important of these measures are the laws and government policies enacted to use fisheries subsidies to the positive side and minimise IUU fishing.

7.1. Solutions to specialized management agencies and the Vietnamese government

To limit the negative impact of fisheries subsidies on IUU fishing, Vietnamese state management agencies need to consider the following:

- The Vietnamese government should ensure that public finance for fisheries is available for management, control, and monitoring activities and avoid funding infrastructure projects that encourage incentives for overfishing.

- Furthermore, active and effective management of all fish stocks and for the global fishing community must cooperate to address regulatory and policy gaps in combating IUU fishing (Directorate of Fisheries of Vietnam, 2020).

- At the same time, regulatory measures enacted by the government need to be reviewed and simplified, as they are often too complex and challenging to implement and monitor.

- In addition, the Ministry of Agriculture and Rural Development should create communication among regional fisheries management organizations in ASEAN and South China sea that will assist in the fight against IUU fishing.

- Harmonizing standards for scientific data collection and sharing best practices for technology information maritime will improve overall management.

- Moreover, the government, along with ministries, should invest more in data collection and analysis to build a more substantial evidence base for policy change.

- Finally, it is recommended that socio-economic and scientific data should be integrated into the fisheries management system by including data in the decision-making process.

Importance to assess the current subsidies regime.

At the same time, the maritime authority collects relevant data on fisheries subsidies and the positive and negative impacts on Vietnam's fishing situation. This will facilitate analysis, evaluation, commenting and support informed decision-making on the allocation of fisheries subsidies to each sector to assess the efficiency of the subsidy amount while reducing the possibility of IUU fishing affecting the marine environment.

In addition, the legislative and executive organs should step up the effective implementation of the provisions of the revised fisheries law and guiding documents as well as ensuring compliance with the recommendations of the European Commission, international law, and management practice of Vietnam.

Given the current status of IUU issues, Vietnam can start studying the accession to other relevant international treaties such as the Port State Measures Agreement and the Agreement on Promoting Compliance with International Measures on Conservation and Implementation Management by fishing vessels in FAO international waters in 1993 and signed bilateral agreements on IUU control with neighbouring countries.

Vietnam should step by step participate in negotiations and participate in WTO agreements on reducing fisheries subsidies of member countries towards sustainable development goal 14.6 of the United Nations.

Fisheries subsidies should be used to upgrade informative technology such as fishing vessel monitoring devices, IUU fishing-related ship management systems, and at the same time increase, human resources for maritime management agencies for the sake of South Vietnam with a coastline of 3,260 km.

Finally, the management agencies should raise administrative sanctions for vessels violating fishing regulations and increase subsidize supporting environmental protection and safety.

7.2. Solutions for fishermen and fishing businesses

In the future, to thoroughly solve the problem of IUU fishing caused by fisheries subsidies, fishers and fishing companies must take drastic measures that do not have much impact on revenue and profit.

- Firstly, fishermen and fishing companies use fisheries subsidies to increase incentives for supporting fishermen to switch from fishing to aquaculture which is fed with organic products that are not made from fish. This reduces offshore fishing activities, no longer relying heavily on natural fish and seafood resources, and reduces IUU fishing. This transformation will reduce dependence on traditional fishing activities, and thus reduce the burden on wild fishery resources. At the same time, it will also help create more sustainable raw materials for processing activities, contributing to the development of Vietnam's seafood processing industry.

- Secondly, fishermen and seafood companies should use reasonable subsidies and strictly comply with the law on fishing. This is because if Vietnam continues to be yellow-carded by the European Union or in the future will be a red card, Vietnam is banned from exporting to the European market directly affecting fishermen and seafood companies.

- Finally, fishing companies should use fisheries subsidies to train, foster, and improve legal knowledge for fishers while strictly complying with the Ministry of Agriculture and Development regulations and the Government so that Vietnam can remove the EC's yellow card in the future.

7.3. Conclusion

As one of the world's leading seafood exporters, Vietnam plays an essential role in the Asian seafood industry in general and the world in particular. As a country providing protein and seafood sources for the world, Vietnam has also been one of the leading countries in the world in IUU Fishing with many negative aspects.

Many reasons lead to IUU fishing, such as fishermen's awareness, low income, or lax management by authorities. However, fisheries subsidies are one of the main drivers of IUU fishing through funding policies such as investment subsidies, fisheries

rehabilitation, shipbuilding, aid for fishing communities, aquatic plants; or variable cost subsidies such as fuel-related payments, tax breaks for ships and fishers and insurance support.

The dissertation has pointed out the current situation of fisheries subsidies in Vietnam with specific data and detailed legal regulations on fisheries subsidies in recent years. At the same time, the author proposes strong short-term and long-term solutions and measures for the government and ministries to soon amend and supplement regulations in a short time to minimise IUU fishing.

As a member of the international community, Vietnam needs to comply with international legal regulations of the United Nations, the ILO, the FAO, and the IMO related to fisheries subsidies and IUU fishing.

In the future, the main task of the Vietnamese government and fisheries management agencies is to remove the yellow card of the European Commission on national seafood. Fisheries subsidies are a key for authorities to remove IUU fishing. At the same time, this will bring Vietnam's seafood export industry to the European, American, or Japanese markets back to normal.

In addition, Vietnam is participating in the WTO's negotiating team to eliminate fisheries subsidies, which is another essential task. At the same time, Vietnam should demonstrate a strong commitment as one of the world's top-ranked countries engaged in combating global IUU fishing.

With the efforts of the entire government, the Ministry of Agriculture and Rural Development, the Ministry of Finance, the Ministry of Transport, and the Department of Maritime Affairs, Vietnam is committed to join the world in combating global IUU fishing and eliminate fishing subsidies in the short and long term.

7.4. Further research

More in-depth research is needed on how Vietnam's fisheries subsidies in recent years have been managed and used with many positive or negative aspects to the fisheries sector. At the same time, research should be done on how policies and laws

in the future could be implemented to meet Vietnam's signing of agreements with WTO members and the critical goal of removing the EU's yellow card.

In addition, there is a need for more empirical research on other factors affecting IUU fishing in addition to fisheries subsidies, such as fishing traditions, culture, or short-term economic value for fishers, other fishing communities and fishing companies. As a result, a complete picture of Vietnam's IUU fishing will be built up, and researchers, policy analysts, and maritime and government authorities will be able to capture all the information and make the right decisions, laws, and policies.

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