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**WORLD MARITIME UNIVERSITY**

Malmö, Sweden

**ADDRESSING ILLEGAL, UNREPORTED,  
UNREGULATED (IUU) FISHING IN  
CAMBODIA: THE IMPACT OF THE EU'S  
IUU REGULATION**

**SORPHEA SOK**  
Cambodia

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


**MASTER OF SCIENCE**  
**in**  
**MARITIME AFFAIRS**  
**(MARITIME LAW AND POLICY)**

2022

## 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):   
.....

(Date): 20 September, 2022  
.....

Supervised by: Prof. Dr. Henning Jessen, LL.M.

Supervisor's affiliation:

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## Abstract

**Title of Dissertation:** Addressing Illegal, Unreported, Unregulated (IUU) fishing in Cambodia: The Impact of the EU's IUU Regulation

Degree: **Master of Science**

Illegal, Unreported, Unregulated (IUU) fishing is a threat to sustainable fisheries that no state can escape. It puts food security under a severe threat if no prompt and effective action is taken. Cambodia is not an exemption from its impact too. Therefore, this study aims to review IUU fishing's impact on Cambodia, its driving forces, and how Cambodia responds to the issue. Furthermore, this study will also look into the EU's IUU fishing regulation and its impact on Cambodia's response to IUU fishing since the red card was issued in 2014. Through the desk-based method, the action taken by Cambodia were identified. The study also identified three drivers – economic, social, and institutional— for IUU activities and the impact of IUU fishing in Cambodia. Moreover, in response to IUU fishing and the EU's decision Cambodia has introduced many legal reforms and a national plan and maintained close cooperation regionally and internationally. However, this research has identified some gaps and drawn some recommendations for Cambodia, including renationalizing the vessel registration system, improving the effectiveness of fisheries management, and participating in the leading international convention and agreement governing fisheries.

**KEYWORDS:** Cambodia; Illegal, Unreported, Unregulated (IUU) fishing; EU's IUU Regulation

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## List of Abbreviations

<b>AMSs</b>	ASEAN Member States
<b>ASEAN</b>	Association of Southeast Asia Nations
<b>CCAMLR</b>	The Commission for the Conservation of Antarctic Marine Living Resources
<b>CFis</b>	Community Fisheries
<b>CMMs</b>	Conservation and Management Measures
<b>EC</b>	European Council
<b>EU</b>	European Union
<b>EEZ</b>	Exclusive Economic Zone
<b>FAO</b>	Food Agriculture Organization
<b>IPOA-IUU</b>	International Plan of Action to prevent, deter and eliminate Illegal, Unreported and Unregulated fishing
<b>ITF</b>	International Transport Workers' Federation
<b>IUU</b>	Illegal, Unreported, Unregulated
<b>MAFF</b>	Ministry of Agriculture, Forestry, and Fisheries
<b>MCS</b>	Monitoring, Control, and Surveillance
<b>MPWT</b>	Ministry of Public Work and Transport
<b>NPCI-MF</b>	National Plan of Control and Inspection for Marine Fisheries
<b>NPOA-IUU</b>	National Plan of Action to prevent, deter and eliminate Illegal, Unreported and Unregulated Marine Fishing
<b>PDAFF</b>	Provincial Department of Agriculture Forestry and Fisheries
<b>PSMA</b>	Agreement on Port State Measures
<b>RFMOs</b>	Regional Fisheries Management Organizations
<b>RGC</b>	Royal Government of Cambodia
<b>RPOA-IUU</b>	Regional Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported, and Unregulated Fishing
<b>SDGs</b>	Sustainable Development Goals
<b>SEAFDEC</b>	Southeast Asian Fisheries Development Center
<b>UNCLOS</b>	United Nations Convention on the Law of the Sea

## **Chapter 1: Introduction**

### **1.1 Background**

Fisheries have long been the primary support for humans, economically and socially, that cannot be overlooked. More than 3 billion people worldwide rely on fish for food security (Okafor-Yarwood & Belhabib, 2020). According to FAO (2022a), global production of aquatic animals was expected to have reached 178 million tonnes in 2020, a slightly decreased from 179 million tonnes (all-time recorded) in 2018. The total first-sale value of US\$ 406 billion, of which US\$ 141 billion came from capture fisheries (FAO, 2022a). However, the world fishing industry has been under the threat of Illegal, Unreported, and Unregulated (IUU) fishing. According to FAO (2022b), annually, fishes caught by the IUU fishing method are worth US\$ 10 – US\$ 23 billion (estimate). Additionally, IUU fishing is a serious threat to sustainable fishing that can affect food security, damage the marine environment, and affect socio-economic conditions (European Union, 2021a).

The definition of IUU fishing is broken into three components: Illegal, Unreported, and Unregulated. The issue of IUU fishing is transboundary; it threatens sustainable fisheries and the effort to protect global biodiversity (Southeast Asian Fisheries Development Center/Training Department, 2022). Internationally, several instruments existed to combat IUU fishing. These include the United Nations Convention on the Law of the Sea 1982 (UNCLOS); the International Plan of Action to prevent, deter and eliminate Illegal, unreported, and Unregulated fishing (IPOA-IUU) (2001); Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High seas (1994); Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing

(PSMA) (2009); Agreement relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) (1995); and the Code of Conduct for Responsible Fisheries (FAO CCRF) (1995) (Royal Government of Cambodia [RGC], 2020).

Regionally, Regional Fisheries Management Organizations (RFMOs) responsible for regional fishing in the high sea since IUU fishing is also a regional concern. Additionally, some region such as Europe, Africa, and Asia also established a tool to regulate IUU fishing. For example, as a big market state, the European Union (EU) has issued the specific regulation that aims to tackle IUU fishing both in the region and outside the region. Additionally, as one of the most diversified marine ecosystems in the world, Southeast Asia<sup>1</sup> region is threatened by overfishing and destructive fishing (Kim & Nindang, 2018). Sixty four percent of the fisheries resource base in the region is at medium to high risk of overfishing, with Cambodia and the Philippines among the worst-affected countries (Kim & Nindang, 2018). IUU fishing costs the region billions of dollars annually from the sector that supports 10 million fishers and 100 million jobs (out of a total population of 600 million). (Chalk, 2017; Russel, 2016).

Furthermore, according to the Southeast Asian Fisheries Development Center (SEAFDEC) (2022a), in 2019, the Southeast Asian region contributed 22% to global marine capture fisheries production, equal to 18.17 million tons. Thus, the fishery industry is vital to countries in the region as many populations depend on fishing for a source of income and protein. IUU fishing occurs throughout the region, and culprits range from small-scale local fishermen to large-scale operations run on trawlers used for commercial fishing (Kim & Nidang, 2018). Three areas, including the Gulf of Thailand (border Thailand, Cambodia, Vietnam, and Malaysia), Indonesia waters, and Malaysia's EEZ, are prone to IUU fishing (The ASEAN Post Team, 2020). Hence, the need for a regional tool and cooperation to combat IUU fishing is recognized by the

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<sup>1</sup> <https://asiasociety.org/education/introduction-southeast-asia>

Association of Southeast Asia Nations (ASEAN)<sup>2</sup>, an intergovernmental organization in the region. Therefore, the Regional Plan of Action to Promote Responsible Fishing Practices including Combating IUU Fishing in the Region (RPOA-IUU); ASEAN network for combating illegal, unreported, unregulated (IUU) fishing (AN-IUU) and ASEAN Regional Plan of Action for the Management of Fishing Capacity (RPOA-Capacity) were introduced; these will provide a guideline and platform for countries in the region, including Cambodia, response the issue.

Fisheries industry is vital to Cambodia's development goals, particularly regarding food and nutrition security, poverty reduction, employment, equity, economic efficiency, foreign exchange balance, and nature conservation (RGC, 2019). Since 2008, the contribution of marine fishers to the overall fish catches has gradually increased (RGC, 2019). Over 120,000 tons of marine production was produced in 2017 (RGC, 2020). However, there are several threats, such as the overfishing and overcapacity of the fishing fleet; IUU fishing; coastal development; and habitat degradation, that have threatened the sustainable marine fisheries in the country (RGC, 2019). IUU has been recognized globally as a serious challenge to the fisheries industry, and Cambodia is no exception, affected by IUU fishing. Cambodia's economic losses are US\$27-US\$56 million annually (RGC, 2020). Furthermore, in 2014, Cambodia was also identified as a non-cooperating third country (red-card) by the EU. This means the EU has banned fish and fisheries products from Cambodia, and the EU vessel from operating in Cambodia's water.

In response, Cambodia has introduced several legal and regulatory changes along with the national plan and policy, as a result, in 2021, Cambodia has made a significant improvement in comparison to 2019 (Global Initiative Against Transnational Organized Crime, 2021). Nevertheless, the red card has yet been lifted for Cambodia.

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<sup>2</sup> <https://www.cfr.org/backgrounder/what-asean>

For that reason, this dissertation aims to review Cambodia response to IUU fishing and the impact of red card from the EU. Furthermore, this dissertation also looks into the rationale behind IUU fishing and its impact in Cambodia.

## **1.2 Problem Statement**

Fisheries play an important role in Cambodia, providing the population with food, income, and employment. By acknowledging that the threats of IUU fishing still exist and can be harmful to many aspects of Cambodia, it is crucial to critically study its impact and measure to respond to the issue from the government. Moreover, it is essential to note that the EU has yet lifted a red card from Cambodia although Cambodia has improved in the IUU fishing index. Therefore, beside a critical study on how Cambodia addresses the issue of IUU fishing, a study on how Cambodia seeks to be del-listed from the EU is equally important. Furthermore, the response from Cambodia to IUU fishing is essential from the regional and international perspective since Cambodia is located in one of the areas that are vulnerable to IUU fishing.

## **1.3 Research objectives and Research questions**

The objective of the study is:

- To identify the pattern of IUU fishing in Cambodia
- To identify the impact of IUU fishing, especially the from the EU
- To identify Cambodia's measure to tackle IUU fishing

To achieve these objectives, this research will answer the question as follows:

- What are the causes of IUU fishing in Cambodia?
- What are the impacts of IUU fishing on Cambodia?
- How does Cambodia response to the issue of IUU fishing?
- How can Cambodia get de-listed from the EU?

## **1.4 Methodology**

This research will employ a desk-based method to achieve the objectives and answer the research questions. Both primary and secondary sources will be reviewed. Firstly, the primary resources, including the international conventions and the government

documents from the FAO, the EU, SEAFDEC, and the Ministry of Agriculture, Forestry, and Fisheries (MAFF) will be critically reviewed to identify the issue of IUU fishing in Cambodia, the decision from the European Council (EC), and the responses from the Cambodian government. Secondly, the secondary sources, including journal articles, textbooks, and peer-review publications related to IUU fishing, will also be analyzed to support this.

## **1.5 Research Limitation**

This research falls short of the recent data for Cambodia and the lack of peer-reviewed literature from Cambodian scholars on the issue. Furthermore, this research lacks input from the relevant stakeholder from Cambodia.

## **1.6 Structure of the Study**

This study is divided into five chapters. The first chapter is the introduction that includes the background of the study, research objectives and questions, problem statement, research methodology, and research limitations. Chapter two describes the definition of IUU fishing, its global impact, the driving forces, and the international legal framework (international and regional) to combat IUU fishing. Chapter three concentrates on Cambodia's legal and regulatory frameworks in response to IUU fishing, the rationale behind IUU fishing in the country, and its impact. Chapter four introduces the EU's IUU regulation and the issue of a red card for Cambodia. Chapter five is the conclusion and recommendations.



## **Chapter 2 : Illegal, Unreported, Unregulated (IUU) Fishing**

### **2.1. What is IUU fishing?**

Illegal, Unreported, and Unregulated are "the three adjectives that ultimately jeopardize the whole of the fisheries sector" (FAO, 2020a, para.1). The concept of Distant Water Fishing gave rise to the concept of IUU fishing because it relies on the open-access regime (Oral, 2020). The phrase "illegal, unreported, and unregulated fishing" was first used by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) in a 1997 study that detailed unauthorized fishing within the Southern Ocean's Exclusive Economic Zones (EEZs) (Christensen, 2016). A few years later, the volunteer-based instrument known as the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported, and Unregulated Fishing (IPOA-IUU) was developed by FAO. This was the first instrument that comprehensively defined the definition of IUU fishing and was widely referred to. IUU fishing is included a wide range of activities. The definition concerns three aspects which are illegal, unreported, and unregulated fishing activities. According to the POA-IUU section 3 by FAO (2001), the scope of IUU fishing is as follows:

Illegal fishing refers to activities:

- conducted by national or foreign vessels in waters under the jurisdiction of a State, without the permission of that State, or in contravention of its laws and regulations;
- conducted by vessels flying the flag of States that are parties to a relevant regional fisheries management organization but operate in contravention of the conservation and management measures adopted by that

organization and by which the States are bound, or relevant provisions of the applicable international law; or

- in violation of national laws or international obligations, including those undertaken by cooperating States to a relevant regional fisheries management organization.

Unreported fishing refers to fishing activities:

- which have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations; or
- undertaken in the area of competence of a relevant regional fisheries management organization which have not been reported or have been misreported, in contravention of the reporting procedures of that organization.

Unregulated fishing refers to fishing activities:

- in the area of application of a relevant regional fisheries management organization that are conducted by vessels without nationality, or by those flying the flag of a State not party to that organization, or by a fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organization; or
- in areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in a manner inconsistent with State responsibilities for the conservation of living marine resources under international law (p.2)

In line with the FAO's definition, in the Commission of the European Communities (2007), the commission define the scope of EU policy to address IUU fishing as follows:

- infringements to rules on management and conservation of fisheries resources in national and international waters;
- fishing activities in high seas areas covered by a Regional Fisheries Management Organisation (RFMO) carried out by vessels without nationality or registered in a non-Party to the RFMO and in a manner contravening the rules issued by this organisation;
- fishing activities carried out in high seas areas not covered by a RFMO in a manner inconsistent with state responsibilities for the conservation of fisheries resources under international law (p.3)

## **2.2. IUU as a global threat**

IUU fishing is a global threat. According to FAO (2022c), “IUU fishing remains one of the greatest threats to marine ecosystems due to its potent ability to undermine national and regional efforts to manage fisheries sustainably as well as endeavours to conserve marine biodiversity” (para.1). Besides a threat to ecosystem and fish stock, it is also involved with the transnational crime that threatens many coastal states. IUU fishing has become a worldwide concern since it occurs in many nations and has resulted in substantial losses to coastal nations (Puspoayu & Setyowati, 2018). It takes advantage of corrupt governments and weak management regimes, especially in developing nations that lack the ability and resources for effective monitoring, control, and surveillance (MCS) (FAO, 2022c). Therefore, IUU fishing affects many aspects

of our life, especially the developing nations that heavily depend on fishing. The following section explores the incentive behind IUU fishing and its impact.

### **2.2.1. The rationale behind IUU fishing**

IUU fishing occurs in all types and dimensions of fisheries, both on the high seas and within national jurisdiction. According to Gallic & Cox (2006); Lee & Viswanathan's (2020) framework, there are three drivers behind IUU fishing: economic, social, and institutional factors.

Economic profit is the key-driven for IUU fishing (Kuemlangan & Press, 2010). Throughout the year, it has transformed into a billion-dollar business as it is widespread worldwide. The study by Sumaila et al. (2020) has shown that the illicit trade of IUU fishing products generates revenues between US\$ 8.9 and US\$17.2 billion per year. “The main economic drivers of IUU fishing are overcapacity, ineffective management, and subsidies” (Gallic & Cox, 2006; Agnew & Barnes, 2004). According to the Organization for Economic Co-operation and Development [OECD] (2005), poor domestic fisheries management in either domestic fleets or inappropriate allocation of fishing rights accounted for overcapacity. Fishers will likely resort to IUU fishing when resources become scarce, lower operation costs and high rewards (OECD, 2005). Government subsidies, however, also lead to IUU fishing.

Additionally, the economic status of fishers also ties to IUU fishing activities. Usually, fishers who engage in IUU fishing are poor (FAO, 2018, as cited in Lee and Viswanathan, 2020). Besides general factors, each region has factors that led to IUU fishing. For instance, according to Lee & Viswanathan (2020), the overlapping maritime states in the ASEAN region and fishing regulations in the region also lead to IUU fishing activities.

Another factor is the social status of fishers. The high density of the population and low level of education can encourage fishers to involve in IUU fishing (Gallic & Cox, 2016, as cited in Lee & Viswanathan, 2020). The poor economic and social conditions of some developing countries motivate fishers to work in IUU fishing vessels or engage in IUU fishing (Lee & Viswanathan, 2020). Moreover, the poor social condition provides a cheap labour pool for IUU /FOC vessels (Gallic & Cox, 2016).

Regarding institutional factors, the current international and domestic legal framework gap exacerbates IUU fishing. The international regulatory framework provided by UNCLOS for the high sea is inadequate and incompetently applied (OECD, 2005). Current maritime law does not ban IUU/Flag of Convenience (FOC) vessels from fishing on the high seas, whether or not they are subject to the authority of an RFMO (Gallic & Cox, 2016). Therefore, some illegal fishing activities are beyond the reach of the states (Lee & Viswanathan, 2020). According to MRAG (2005, as cited in Asia-Pacific Economic Cooperation Fisheries Working Group, 2008), MCS and governance limitations are the dominant factors leading to IUU fishing. The insufficient MCS motivates IUU activities as it is highly unlikely to be caught by the authority. Moreover, the state's failure to impose heavy sanctions and penalties further intensify the rise of IUU fishing.

### **2.2.2. The impact of IUU fishing**

IUU fishing poses the greatest threat to many parts of the world, particularly developing nations that rely on fisheries for food security and export revenue (NOAA Fisheries, 2022). International Transport Workers' Federation (ITF) (2022, para.4), "IUU fishing threatens fishers' lives and Safety at sea; fishers' wages and labour rights; the environment and our food supply; the responsible fishing business, which cannot keep up; and nations and public services (through tax avoidance)". Thus, IUU fishing has both economic, social, and institutional impacts. According to Sumaila et al. (2020, p. 2), "the estimated average annual economic impact from the redirection of fisheries catches away from the legitimate (formal) trading system toward potential

illicit trade (i.e., taking into account the economic multiplier for each country) suggests a potential economic impact of between US\$25.5 and US\$49.5 billion”. Africa and Asia are the top two vulnerable places to IUU fishing in terms of economic and income losses (Sumila et al.,2020). Asia Pacific is the top fish producer and the famous place where most cases of IUU fishing happen (FAO, 2022, as cited in Fuji, Okochi, & Kawamura, 2021). Additionally, the coastal communities and the livelihood of small-scale fishers are threatened by IUU fishing (FAO, 2021a).

### **2.3. Legal framework to combat IUU fishing**

By acknowledging the impacts caused by IUU fishing, many legal frameworks on the international, regional, and national levels have been created. Many articles and regulations address IUU fishing directly within this framework, including provisions and recommendations pertaining to port state measures, flag state performance, coastal state duties, market state measures, or a mix of all or some of these (FAO, 2022d). Therefore, this section will further discuss the international and regional instruments.

#### **2.3.1. International Instruments**

This section aims to explore several international agreements and initiatives that govern fisheries resources.

##### **2.3.1.1. United National Convention on the Law of the Sea (UNCLOS) 1982**

The United National Convention on the Law of the Sea (UNCLOS), 1982, is the backbone convention for fisheries management and conservation. The convention spells out the rights and obligations of the coastal state regarding resource management (living and non-living) under state jurisdiction, provided by the convention, up to 200 nautical miles. It also provides a legal tool for enforcement and exercising the coastal state's rights. Unfortunately, Cambodia has not ratified the convention yet.

#### **2.3.1.2. Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (The Compliance Agreement) 1993**

The FAO Conference approved the Compliance Agreement at its 27<sup>th</sup> session in November 1993. It came into effect on April 24, 2003, following the deposit of the twenty-fifth instrument of acceptance with the FAO Director-General (FAO, 2022e). This agreement “seeks to encourage countries to take effective action, consistent with international law, and to deter the reflagging of vessels by their nationals as a means of avoiding compliance with applicable conservation and management rules for fishing activities on the high seas” (Swan, 2004, para 1). The provision of the agreement includes the responsibility of the flag state, records of fishing vessels, international cooperation, and information sharing that would help the flag state to effectively exercise its role, especially for developing states. According to Article VII of the agreement, the developing states party will receive support from FAO, international organizations, and other regional organizations to fulfil their obligation under the agreement.

#### **2.3.1.3. United Nation Fish Stocks Agreement (UNFSA) 1995**

The UN Fish Stock Agreement (UNFSA) is an agreement that implements the provision of UNCLOS 1982. It was adopted in 1995 by the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks that aim "to ensure the long-term conservation and sustainable use of straddling fish stocks and highly migratory fish stocks through effective implementation of the relevant provisions of the Convention" (UNFSA, 1995). To fulfil the agreement's objective, the agreement provides a framework for cooperation to ensure the conservation of resources within and beyond EEZ. The agreement created a minimum international standard for fish stock management, ensured that states' measures were comprehensive and compatible, and recognized the special need of developing states in fish stock management (Sustainable Development Goal, 2022). Furthermore, the agreement spells out the flag states' duties, including registering and recording vessels, MCS, ensuring compliance

and enforcement, boarding and inspection, implementing Port State measures, and cooperation in international, regional, and sub-regional enforcement. (FAO, 2022f).

#### **2.3.1.4. FAO Code of Conduct for Responsible Fisheries**

In 1995, FAO adopted the FAO Code of Conduct for Responsible Fisheries (FAO, 2021b). The objective of the code is to set "international standards of behavior for responsible practices to ensure the effective conservation, management, and development of living aquatic resources, with due respect for the ecosystem and biodiversity." (FAO, 2021b, para 7). The code is a voluntary instrument; the standards set by it are comprehensive and expected to be implemented at all management levels, eventually promoting best practices in the fisheries sector. Several instruments under the code's framework, including the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported, and Unregulated Fishing (IPOA-IUU), apply to all states and entities.

#### **2.3.1.5. International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported, and Unregulated Fishing (IPOA-IUU)**

In 2001, within the Code of Conduct for Responsible Fisheries framework, FAO adopted IPOA-IUU due to the need to address the issue of IUU fishing. The IPOA-IUU is a non-binding instrument designed as a comprehensive toolbox, with a wide range of instruments accessible for use in various circumstances to combat IUU fishing. The plan covers flag, port, coastal, and market State responsibilities. It also includes various relevant actors—industry, fishing communities, and non-governmental (NGOs) (FAO, 2022g).

#### **2.3.1.6. Port State Measure Agreement (PSMA)**

Recently, FAO had just adopted the first legally binding instrument specifically targeting IUU fishing, known as Agreement on Port State Measure (PSMA). This instrument aims to tackle IUU fishing by denying access to the port for a vessel engaged in IUU fishing and effectively preventing the illegal catches from reaching the national and international market (FAO, 2022h). Cooperation, port designation, data collecting, inspections, legislative authority, information exchange, and technical



support are some of the essential requirements needed to implement the PSMA (Bethel et al, 2021). The agreement set out the several obligations for state parties (see Appendices 1).

#### **2.3.1.7. United Nation Sustainable Development Goals (Goal 14)**

In 2015, all United Nations Member States came together and adopted the 2030 Agenda for Sustainable Development with 17 core Sustainable Development Goals (SDGs) (United Nations, 2022). Each goal aims to tackle the urgent global issue and create peace and a sustainable future. Addressing IUU fishing is also stipulated under one of the SDGs, SDG 14: Life Below Water. There are targets to help achieve the goal, including Target 14.1: Reduce Marine Pollution; Target 14.2: Protect and Restore Ecosystems; Target 14.3 Reduce Ocean Acidification; Target 14.4: Sustainable Fishing; Target 14.5: Conserve Coastal and Marine Areas; Target 14.6: End Subsidies Contributing to Overfishing; Target 14.7: Increase the Economic Benefits from Sustainable Use of Marine Resources; Target 14.8: Increase Scientific Knowledge, Research and Technology for Ocean Health; Target 14.9: Support Small Scale Fishers; and Target 14. An Implement and Enforce International Sea Law (The Global Goals, 2022).

In conclusion, several instruments exist to provide a framework and tools for states to participate in combating IUU fishing.

#### **2.3.2. Regional Instruments**

This section aims examine regional instruments that exist to help address IUU fishing issue.

##### **2.3.2.1. Regional Fisheries Management Organization (RFMOs)**

Regional Fisheries Management Organizations (RFMOs), as international organizations, regulate high sea fishery activities (European Commission, 2022a). They serve a vital role in raising awareness of international instruments among their contracting parties and ensuring that Conservation and Management Measures (CMMs) support and complement international conservation and management

measures (FAO, 2022i). Several types of RFMOs have different coverage and area of competency. It can be divided into two categories— Tuna RFMOs which concentrate only on highly migratory fish stocks, mainly tuna, and RFMOs which manage fish stock (i.e., Pelagic or demersal) by geographical area (European Commission, 2022a). According to (European Commission) 2022a, there are five RFMOs manage highly-migratory species (Tuna RFMOs) and eleven RFMOs that manage fish stock by geographical area (see Appendices 2). Currently, Cambodia is not a member of any RFMO.

### **2.3.2.2. Southeast Asian Fisheries Development Center (SEAFDEC)**

Southeast Asian Fisheries Development Center (SEAFDEC) was established in 1967 as an autonomous inter-governmental body that has the mission “to promote and facilitate concerted actions among the Member Countries to ensure the sustainability of fisheries and aquaculture in Southeast Asia” (SEAFDEC, 2022b, para.1). SEAFDEC consists of ten ASEAN members and Japan. Combating IUU fishing in the region is one SEAFDEC’s missions. There are several initiatives initiated by the SEAFDEC to help address the issue within the region, including the electronic ASEAN Catch Documentation Scheme (eACDS) for Marine Capture Fisheries, the ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain, capacity building for human resources to implement of the Port State measures through the cooperation among the AMSs, and the Regional Fishing Vessels Record for Vessels 24 Meters in Length and Over (RFVR-24m) (**Table 1**).

**Table 1.** SEAFDEC initiatives for addressing IUU fishing in Southeast Asian Region

<b>Guideline and Tools</b>	<b>Description</b>
ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain	This guideline aims to serve as a tool for AMSs to ensure origin of fish and fishery product from Southeast Asia region. The guidelines aim to combat IUU fishing activities based on five identified forms namely (SEAFDEC, 2015, p.1): <ul style="list-style-type: none"> <li>• Illegal fishing activities within a country;</li> <li>• Unauthorized transshipment and landing of fish/catch across borders;</li> <li>• Poaching in the EEZs of other countries;</li> <li>• Illegal fishing and trading practices of live reef food fish, reef-based ornamental and endangered aquatic species; and</li> <li>• IUU fishing in the high seas and RFMO areas.</li> </ul>
Electronic ASEAN Catch Documentation Scheme (eACDS) for Marine Capture Fisheries	This tool supports the implementation of the ASEAN Guidelines for Preventing the Entry of Fish and Fishery Products from IUU Fishing Activities into the Supply Chain and to comply with the requirement the EU IUU regulation (EC Regulation 1005/2008). It improves the traceability for marine capture fisheries and increase intra-regional and international trade of the AMSs.
The Regional Fishing Vessels Record for Vessels 24 Meters in Length and Over (RFVR-24m)	The Regional Fishing Vessels Record (RFVR) Database is an online system to aid the inspection of fishing vessel which can use by relevance authorities of the AMSs in checking and taking corrective actions against inappropriate behaviour of its fishing vessels. This tool is also established to support the implementation of the guideline and thus help eliminated IUU fishing in the region. (SEAFDEC, n.d.)

*(This Table is done by the author)*

### **2.3.2.3. The Association of Southeast Asian Nation (ASEAN)**

#### **2.3.2.3.1. Regional Plan of Action to Promote Responsible Fishing Practices including Combating IUU Fishing in the Region (RPOA-IUU)**

ASEAN has established the Regional Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported, and Unregulated Fishing (RPOA-IUU) to enhance fisheries management and governance cooperation. It was approved by the fisheries ministers of eleven nations – Australia, Brunei Darussalam, Cambodia, Indonesia, Malaysia, Papua New Guinea, Philippines, Singapore, Thailand, Timor-Leste, and Viet Nam—in May 2007 and was the outcome of joint Australia-Indonesia initiative (Department of Agriculture, Fisheries and Forestry, 2019). RPOA-IUU aims "to enhance and strengthen the overall level of fisheries management in the region to sustain the fishery resources and the marine environment and to optimize the benefit of adopting responsible fishing practices" (SEAFDEC, 2022a, p. 141). RPOA-IUU covers sustainable management of fisheries and their environment, managing fishing capacity, and combating IUU fishing (Department of Agriculture, Fisheries and Forestry, 2019).

The RPOA-IUU Coordination Committee meets annually to share information, report on the status of the implementation of MCS activities, share data on the IUU Vessels List, and discuss the RPOA-IUU work plan with the focus on enhancing regional and global cooperation, strengthening legal, administrative and policy frameworks (SEAFDEC, 2022a; Department of Agriculture, Fisheries and Forestry, 2019).

#### **2.3.2.3.2. ASEAN NETWORK FOR COMBATING ILLEGAL, UNREPORTED, UNREGULATED (IUU) FISHING (AN-IUU)**

The AN-IUU was endorsed by the 42<sup>nd</sup> Meeting of the ASEAN Ministers on Agriculture and Forestry (AMAF) in October 2020. It would act as a framework for collaboration for knowledge exchange, capacity building, and dissemination of best practices, particularly on maritime domain surveillance and investigative activities and experiences of the Network among the AMSs (SEAFDEC, 2022a). The European Union, as a long-standing partner of ASEAN, also strongly supports the creation of AN-IUU and provides financial support through the EU-funded development cooperation program. AN-IUU will “endeavor to enhance the exchange and sharing of information on the nature and extent of IUU fishing activities and to carry out collaborative initiatives to combat IUU fishing to support and not duplicate the existing mechanisms, notably, the RPOA-IUU and SEAFDEC”<sup>3</sup> (COOPERATION FRAMEWORK ON ASEAN NETWORK FOR COMBATING ILLEGAL, UNREPORTED, UNREGULATED (IUU) FISHING, 2020, p. 2)

#### **2.3.2.4. The European Union**

European Union (EU), a large market for fisheries products, has also issued a regulation establishing a community system to prevent, deter and eliminate illegal, unreported, and unregulated fishing (EU IUU Regulation No. 1005/2008) that would prevent the illegal catches from entering the European Market. This means that some countries will face a trade ban if they fail to combat IUU fishing effectively. This regulation will be further examined in Chapter four.

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<sup>3</sup> <https://asean.org/wp-content/uploads/16.-Final-draft-CFTORROPANIUU-28ASWGF.pdf>

## **Chapter 3 : Illegal, Unreported, Unregulated (IUU) Fishing in Cambodia**

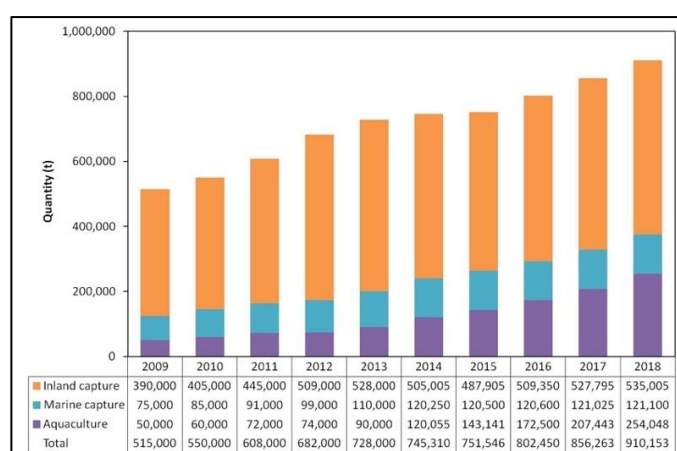
### **3.1. Country Background**

The Kingdom of Cambodia is a Southeast Asian country sharing the border with Thailand, Vietnam, and Laos PDR. Cambodia has an area of 181,035 km<sup>2</sup> and is made up of 97.5 percent land and 2.5 percent water (Thuch, 2018). The country has lakes, rivers, and a coastline which are the source of the country's fisheries. In terms of freshwater, the Mekong River is the primary source of freshwater fishing, and "the Tonle Sap Lake, which is situated in the central-western part of the country and the largest and the most productive lake in Southeast Asia, serves as a natural reservoir of the Mekong River system" (Chin, 2013, para 1, as cited in Thuch, 2018). Cambodia has 69 offshore islands and a 435-kilometer-long coastline on the Gulf of Thailand with four coastal provinces: Koh Kong, Sihanoukville, Kampot, and Kep (FAO, 2019; Opendevelopment Cambodia, 2016).

For Cambodia, fisheries are essential as the country mainly relies on its aquatic resources and biodiversity for food security and livelihoods (FAO, 2019). According to FAO (2022a, p. 87), "aquatic food contributed 50 percent or more to the total animal protein intake" in Cambodia. Also, around 20% of Cambodia's population is directly dependent on the fishing sector for a living; as a result, the fishery supply chain plays an integral part in the country's socioeconomic growth (United Nations Industrial Development Organization [UNIDO], 2020). Based on the RGC (2019), "the fisheries production value is around US\$ 200-300 million per year at the point of landing, and the total value of fisheries across the country, both freshwater, and marine water, contributes about 7%-8% of GDP." (p.1). In 2017, around 654 692 people were

employed in the sector, while another 2 million are believed to benefit from the activities involved (FAO, 2019). Cambodia fisheries products are contributed from inland capture fisheries, marine fisheries, and aquaculture, as shown in **Figure 1**. The figure shows that marine fisheries have a small share of total production compared to inland water catches and aquaculture. Nevertheless, the number "has been increasing yearly since 2008" (RGC, 2019, p.1).

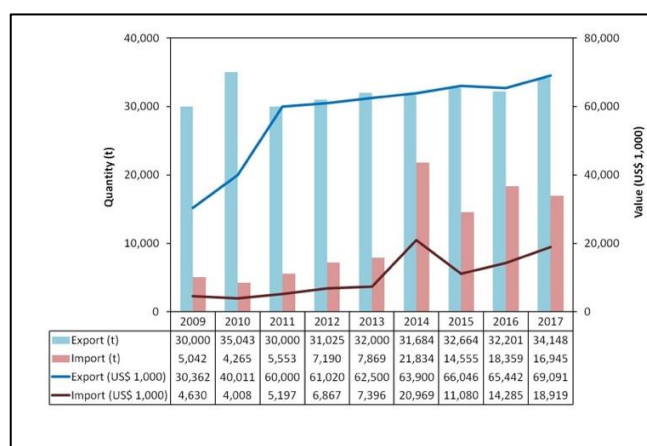
**Figure 1.** Fisheries Production of Cambodia in 2009-2018 by quantity (T)



Note. From *Country Fisheries Trade: Cambodia*, by Ngin, K, 2019, SEAFDEC (<http://www.seafdec.org/country-trade-cambodia/>). Copyright 2022 by SEAFDEC

In terms of trade, Cambodia's total exports of fish and fishery products have increased from over 30,000 t (US\$ 30.3 million) in 2009 to about 34,148 t (US\$ 69.1 million) in 2017, as shown in **Figure 2** (Ngin, 2019). According to SEAFDEC (2022a), Cambodia's total export of fish and fishery products is around 36 975 mt, which is around 75,192 thousand US dollars. Thailand and Viet Nam are the main export destinations, with smaller amounts going to Singapore, Malaysia, China, Hong Kong Special Administrative Region of China, Taiwan Province of China, Japan, the United States, and Australia (FAO, 2019).

**Figure. 2** Exported and imported fish and fishery products of Cambodia from 2009 to 2017 by quantity (t) and value (US\$ 1,000)



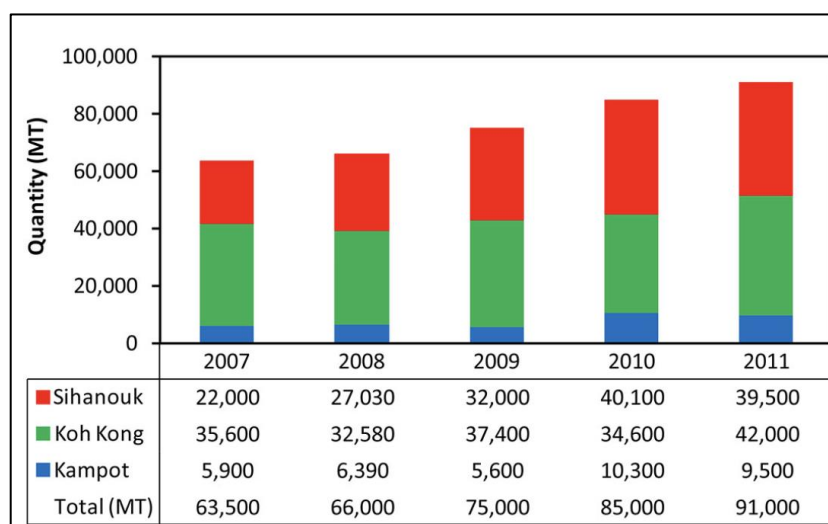
Note. From *Country Fisheries Trade: Cambodia*, by Ngin, K, 2019, SEAFDEC (<http://www.seafdec.org/country-trade-cambodia/>). Copyright 2022 by SEAFDEC

### 3.1.1. Marine Fisheries

Cambodia has EEZ of 55 600 km<sup>2</sup>, with the average depth of marine fishing grounds about 50 meters (m) on the east bank of the Gulf of Thailand (FAO, 2019). Compared to freshwater capture, marine fisheries are smaller than inland water catches. In 2017, the overall marine catch exceeded 120,000 tonnes, accounting for almost 20% of the total fish captured (RGC, 2019). According to Thuch (2018, para 5), "almost 90 % of the marine fisheries production in Cambodia is from two coastal provinces, Sihanouk and Koh Kong (bordering Thailand)." as shown in **Figure 3**. Cambodia has two categories of marine capture fisheries—small-scale or artisanal middle-scale and commercial fisheries (Thuch, 2018; FAO, 2019). *Small-scale fishing* is a family-size operation that operates from the coast to the water of 20m depth; the boat that is used within the area either without an engine or the engine that is less than 50hp (FAO, 2019). For vessels with engine less than 33 HP, permits or licenses is issued at the cantonment level by the Fisheries Administration (FiA) (Thuch, 2018). In contrast, the middle-scale and commercial fishery are only permitted to fish from the 20m depth

line to the EEZ's limit, with the fishing vessel's engine being more than 50 HP (FAO, 2019).

**Figure 3.** Marine capture fisheries production from the three coastal provinces in Cambodia in 2007-2011 by quantity (MT)



*Note.* From *Fisheries Country Profile: Cambodia*, by T. Panha, 2018, SEAFDEC (<http://www.seafdec.org/fisheries-country-profile-cambodia/>). Copyright 2022 by SEAFDEC

Although marine fisheries are slowly developed compared to inland fisheries, there has been a significant increase in catches in the past 15 years (Ministry of Agriculture Forestry and Fisheries [MAFF], 2020a). The number and size of the vessel and the number and size of the fishing gear have increased due to the increase in the number of catches (RGC, 2020). According to Fisheries Administration marine fishing vessel census report in 2018, Cambodia has 7 552 vessels operating in Cambodia's marine fishing water, which are classified into five types according to length, as shown in **Table 2** (MAFF, 2020b). Additionally, there are 259 vessels related to fishing activities which total the number of vessels to 7 811 (MAFF, 2020b). The fishing effort also has increased significantly, and this number suggests an overcapacity of fishing (SEAFDEC, 2019).

**Table 2.** Five classifications of the marine fishing vessel according to total length in coastal provinces



<b>Length-based classification (meter)</b>	<b>Koh Kong</b>	<b>Preah Shihanouk</b>	<b>Kampot</b>	<b>Kep</b>	<b>Total</b>
$\geq 24$	10	0	0	0	10
$18 \leq 24$	67	42	6	0	115
$12 \leq 18$	706	888	311	304	2209
$6 \leq 12$	1727	1559	718	290	4294
$< 6$	886	34	4	0	924
<b>Total</b>	<b>3396</b>	<b>2523</b>	<b>1039</b>	<b>594</b>	<b>7552</b>

*Note.* From *Coastal provinces Fishing Vessel census and temporary licensing of the Kingdom of Cambodia* (p.13), by MAFF, 2020, MAFF (<https://fia.maff.gov.kh/document/SKzKFfLun1>). Copyright 2020 by MAFF

Moreover, unfortunately, according to UNIDO & MAFF (2015), the actual marine fisheries catches are estimated to be more than the official numbers indicate. The reasons are subsistence fishing catches are largely going unrecorded; some catches being sold at sea to Thai vessels in Cambodia's water or landing at Thai's port; and unrecorded catches from illegal fishing (UNIDO & MAFF, 2015; Teh et al., 2014). According to UNIDO & MAFF (2015), "in addition to the official exports, a substantial quantity of marine fishery products, mainly high-value finfish, shrimp and cephalopods, leaves the border unreported." (p.13). There are unofficial "export gates" which make 80 % of marine fishery products are smuggled to Thailand or Vietnam traders via sea, and only 20% take place officially, according to the provincial fisheries office in Sihanouk Ville (FAO, 2019; UNIDO & MAFF 2015). Additionally, the poorly developed harbour facilities (no appropriate/unregistered landing areas) combined with weak data collection cause significant catches not landed in Cambodia as it is being transferred at sea (FAO, 2019 & Thuch, 2018).

### 3.1.2. Inland Capture Fisheries

Freshwater capture is prominent due to large floodplains around the Great Lake and along the Tonle Sap and the Mekong Rivers (FAO, 2019). These lakes and rivers are the source of Cambodia's freshwater fisheries and make Cambodia one of the top 25 inland water capture producers, producing 0.41 million tonnes in 2020 **Table 3.** (FAO, 2022a). Cambodia has always been the top freshwater fisheries producer; however, according to FAO (2022a), Cambodia has reported a declining catch along with Brazil, Vietnam, and Thailand.

**Table 3.** Inland Waters Capture Production: Major Producing Countries and Territories

Country	Production (average per year)				Production				Percentage of total, 2020
	1980s	1990s	2000s	2010s	2017	2018	2019	2020	
	(million tonnes, live weight)								
Top 25 inland water capture producers									
India	0.50	0.58	0.84	1.43	1.59	1.70	1.79	1.80	16
China	0.54	1.46	2.11	2.03	2.18	1.96	1.84	1.46	13
Bangladesh	0.44	0.50	0.86	1.08	1.16	1.22	1.24	1.25	11
Myanmar	0.14	0.15	0.48	0.85	0.89	0.89	0.89	0.84	7
Uganda	0.19	0.22	0.33	0.44	0.39	0.44	0.60	0.57	5
Indonesia	0.27	0.31	0.31	0.47	0.47	0.66	0.71	0.49	4
Cambodia	0.05	0.09	0.34	0.46	0.47	0.42	0.40	0.41	4
United Republic of Tanzania	0.25	0.29	0.30	0.31	0.33	0.31	0.38	0.41	4
Nigeria	0.10	0.10	0.21	0.35	0.42	0.39	0.37	0.35	3
Egypt	0.12	0.23	0.27	0.25	0.26	0.27	0.30	0.32	3
Russian Federation	0.09	0.26	0.22	0.27	0.27	0.27	0.25	0.28	2
Brazil	0.20	0.18	0.24	0.23	0.22	0.22	0.22	0.22	2
Democratic Republic of the Congo	0.13	0.17	0.23	0.22	0.23	0.23	0.23	0.21	2
Malawi	0.07	0.06	0.06	0.14	0.20	0.22	0.15	0.17	1
Mexico	0.10	0.11	0.11	0.15	0.17	0.22	0.16	0.15	1
Viet Nam	0.11	0.14	0.21	0.16	0.16	0.16	0.15	0.15	1
Pakistan	0.07	0.13	0.12	0.13	0.14	0.14	0.14	0.15	1
Philippines	0.26	0.19	0.15	0.18	0.16	0.16	0.15	0.15	1
Thailand	0.10	0.18	0.21	0.19	0.19	0.14	0.13	0.13	1
Mali	0.07	0.09	0.10	0.10	0.11	0.09	0.11	0.12	1
Chad	0.05	0.08	0.08	0.11	0.11	0.11	0.11	0.11	1
Zambia	0.06	0.07	0.07	0.09	0.10	0.10	0.10	0.11	1
Iran (Islamic Republic of)	0.01	0.09	0.07	0.09	0.10	0.11	0.10	0.10	1
Kenya	0.09	0.18	0.14	0.13	0.10	0.10	0.10	0.10	1
Mozambique	0.00	0.01	0.02	0.09	0.10	0.10	0.12	0.10	1
Top 25 producers	4.02	5.86	8.07	9.95	10.52	10.64	10.74	10.13	88
Total all other producers	1.67	1.19	1.19	1.31	1.35	1.35	1.35	1.34	12
All producers	5.70	7.05	9.26	11.26	11.88	11.99	12.09	11.47	100

Note. From *The State of World Fisheries and Aquaculture 2022. Towards Blue Transformation*. Rome (p.22), by FAO, 2022,

FAO (<https://fia.maff.gov.kh/document/SKzKFfLun1>). Copyright 2022 by FAO

## 3.2. National Legal and Regulatory Framework

This section examines Cambodia's marine fisheries management, especially in response to IUU fishing.

### 3.2.1. Fisheries reform

In 2000 the Royal Government of Cambodia announced a dramatic reform of the fisheries sector in which at least 56% of commercial fishing lots area was reduced and handed to Communities (Baran et al., 2014). The reform was made to support small-scale fishing and the “to strengthen the capacity, efficiency and quality of public services to raise public confidence in government and respond to the needs and aspirations of the people and business community” (MAFF, 2015, p.3). This remarkable reform was marked by the dissolution of the Kampuchea monopoly and the implementation of community-based programs to curb overfishing and environmental destruction (United Nations Conference on Trade and Development [UNCTAD], 2017). After the abolishment of fishing lots, for the management and

sustainable use of natural resources within the communities, Community Fisheries (CFis)<sup>4</sup> management has been put in place, and FiA is co-management with CFis (MAFF, 2015). In this vein, the management of the specific fishing area is managed by CFis; as of 2015 there are 39 marine fisheries CFis and 477 inland fisheries (MAFF, 2015; MAFF, 2020a). However, CFis still have limitations in managing their community fisheries areas (CFA) due to the lack of financial and technical support.

### **3.2.2. Law on Fisheries 2006**

Fisheries resource management is under the country's Law on Fisheries, which came into force in 2006 and was introduced to replace the old fisheries law in 1987. This law has 109 articles and currently is under revision. According to Article 1

This law aims to ensure fisheries and fishery resource management, enhance aquaculture development, the management of production and processing, and to promote the livelihood of people in local communities for the social-economic and environmental benefits, including the sustainability of the conservation of biodiversity and natural culture heritages in the Kingdom of Cambodia. (Law on Fisheries, 2006, p.1)

This attempts to ensure the sustainability of Cambodian fishing resources for the next generation (Lieng, Yagi, & Ishihara, n.d.). The current law covers the Management of Fisheries Exploitation, including Inland and Marine Fisheries Exploitation (article 30-52), Licensing (article 70-71), Procedures for Solving Fishery Offences (article 72-85), Penalties (article 86-104) and Enforcement of the Court Judgment (article 105-107). Under this law, MAFF is the responsible ministry, with FiA as the leading department (MAFF, 2020a). The provision that is essentially applied to marine fisheries can be found as follows (Law on fisheries, 2006):

- Article 11: defines marine fishing domain
- Article 20: prohibits certain fishing gear

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<sup>4</sup> Sub-Decree No. 80/OrNorKror/BorKor on community fisheries management.  
<http://extwprlegs1.fao.org/docs/pdf/cam85864.pdf>

- Article 21: prohibits any commercial activities of fishing gear that are prohibited
- Article 23: defines the fishing activities that is legal unless approved by the Fisheries Administration
- Article 32: set out the criteria for all types of fishing exploitation, except subsistence fishing
- Article 45: set out the condition for fisheries activities within marine fishing domain
- Article 47: require the local fishers to transship fishery product at designated port and port of call prior notification for foreign vessel
- Article 48: the rights of FiA to suspend fishing activities if there is scientific evidence that the fishing practice cause damage to the fish stock.
- Article 49: prohibit trawling in the inshore fishing area (waters shallower than 20m)
- Article 50: advice the non-license fishing vessels to not keep their trawler in the manner that are ready to fish
- Article 52: prohibits all activities that are disturbs and destroy the growth of sea grass or coral reef
- Chapter 15: penalties of fisheries offense.

Therefore, from the above provisions, the current Law does not have a provision that directly aims to tackle IUU fishing. Moreover, the penalties provision does not seem to have set a specific amount of fine for serious fisheries offenses since it mostly bases on the transactional fine by FiA. The strongest penalty is three to five years imprisonment and/or 50,000,000 Riel (approx..12,197.07 US Dollars) fine (Law on Fisheries, 2006).

### **3.2.3. National Plan of Action to prevent, deter and eliminate Illegal, Unreported and Unregulated Marine Fishing (NPOA-IUU) 2020-2024**

As per the guideline of the IPAO-IUU, Cambodia has developed the NPOA-IUU<sup>5</sup> that aim “to specify actions that will undertake to deter, prevent and eliminated IUU fishing; and to link these actions and measures to addressing the challenge of degradation of fisheries resources caused by overcapacity and overfishing.” (RGC, 2020, p.8). NPOA-IUU covers several measures to prevent, deter, and eliminate IUU fishing.

### **3.2.4. National Plan of Control and Inspection for Marine Fisheries (NPCI-MF) 2020-2024**

To complement the NPOA-IUU, Cambodia has developed the National Plan of Control and inspection for Marine Fisheries (NPCI-MF)<sup>6</sup> 2020-2024 that focus on MCS as a response to tackle IUU fishing in the all-coastal provinces of Cambodia (RGC, 2020). This national plan is one of the results of the negotiation process between the RGC and the European Commission to address IUU fishing effectively, and the initiation of the control and inspection is another step toward the “red card” being lifted from the EU (MAFF, 2020a).

### **3.2.5. Overview of Cambodia Fisheries Management Arrangement**

#### **3.2.5.1. Responsible Agencies**

Fisheries management in Cambodia is under the Ministry of Agriculture, Forestry, and Fisheries (MAFF) at the central level that oversees the fisheries sector (Opendevelopment Cambodia, 2015). Within MAFF, the Fisheries Administration (FiA) is responsible for fisheries research and development, laws, and policies and has inspection powers. FiA has

7 departments, 3 Research Institutes, 5 inspectorates, 25 Fisheries Cantonments, and 48 Divisions at 158 FiA district level locations. For

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<sup>5</sup> <https://fia.maff.gov.kh/document/SBKzjYbCjy>

<sup>6</sup> <https://fia.maff.gov.kh/document/3luHmxyD7s>

the coastal areas there is one FiA Inspectorate that has offices in the four Provinces (Cantonment Offices), and also at the Divisional and District level. Co-management is encouraged through Community Fisheries (CFi) where local communities are involved in local-scale fisheries development and management (RGC, 2020, p.7).

Besides MAFF, Cambodia established the National Committee for Marine Security (NCMS) in 2009 to strengthen maritime sovereignty and law enforcement (Chheang, 2013). NCMS facilitates all relevant ministries in response to any threats, including illegal fishing and maintaining order at sea (Chheang, 2013). Additionally, the police guard from the Ministry of Interior also involve in inspection activity, but it is poorly coordinated with the other agency (MAFF, 2020a).

#### **3.2.5.2. Fishing Vessel Registration and Licensing**

The Ministry of Public Works and Transport (MPWT) is responsible for vessel registration, and the registration of fishing vessels is responsible by Merchant Marine Department and the Provincial Department. All fishing vessels must have prior registration with MPWT (MAFF, 2020a). The registration of new fishing boats is necessary, and the owner will then receive the boat's card; the vessel's card, which has two alphabet and a four-digit number that relates to management areas or provincial coastal areas, contains the official number or vessel registration number (SAFDEC, 2022a). On the other hand, there are two types of licenses, including fishing vessels and fishing gear licenses issued by FiA and the Provincial Department of Agriculture Forestry and Fisheries (PDAFF) (SAFDEC, 2022a).

### **3.3. Driving force for IUU fishing in Cambodia**

Cambodia also faced an issue of IUU fishing in Cambodian water. Therefore, this section will seek to identify the driving force for IUU fishing in the Kingdom, and the framework established in Chapter 2 will be used to analyze it.

### 3.3.1. Economic

The economic reason is the main driver behind IUU fishing in many countries and parts of the world. According to Gallic and Cox, 2006; Agnew and Barnes, 2004 (as cited in Lee and Viswanathan, 2020, p.68), "The main economic drivers of IUU fishing are overcapacity, ineffective management, and subsidies." Cambodia is facing the issue of overcapacity of fishing vessels, which led to increased fishing efforts and illegal methods and equipment (Ferber, 2016). The problem of vessel overcapacity is encouraged by the absence of effective fisheries management, which results in inadequate distribution of fishing rights or a general imbalance between fishing capacity and fishing options in the domestic fleet (Gallic & Cox, 2006). Unfortunately, Cambodia fits in this situation as the Cambodian marine fishery is an open access fishery and has "no effective control to limit fishing capacity" (RGC, 2020, p.4). Although the Law on fisheries 2006 has stated some measures to prevent illegal fishing, it is not effectively enforced, and the current license is for access fee collection instead of resource access control (MAFF, 2020a). Thai and Vietnamese vessels, for instance, contributed to the issue of overcapacity since they usually enter Cambodian waters for fishing (Bangkok Post 2009; Styllis & Sothear 2014, as cited in Ferber, 2016). Furthermore, Pramod's (2018) study shows Cambodia

faces huge problem from illegal fishing activities of Vietnamese trawlers. From one coastal region just alone within a 3 mile stretch from shore local fishermen report 20-30 Vietnamese trawlers fishing illegally every day; one can imagine the extent of illegal fishing for the whole coastline. For the whole coastline more than 500 trawlers (Thai, Vietnamese and Occasionally Chinese) fish illegally up to 9 months in a year causing an annual loss of approximately 35,000 to 50,000 tones each year. Illegal trawling also takes place at night.

These incursions by Vietnamese and other foreign trawlers are largely facilitated by absence of seizures from Navy and FiA, coupled with corruption and other systemic failures enabling pillaging of the Cambodian fish stocks. Left with no other choice small-scale Cambodian fishers have used destructive practices to capture smaller-sized fish customarily for subsistence needs (p.7).

Another economic driving force for IUU fishing in Cambodia is the disputed area. The ASEAN nations' overlapping fishing area boundaries and the countries' fishing rules contribute to IUU fishing (Lee & Viswanathan, 2020). This also applies to the case of Cambodia; the maritime border between Cambodia and the neighboring countries is not clearly defined. Cambodia, Thailand, and Vietnam are involved in 30,000 square kilometers overlapping continental shelf areas (Chheang, 2010). Hence, it is an obstacle for the Cambodian government to manage fishery activities and create a loophole for IUU fishing (RGC, 2020).

Moreover, fishers will participate in illegal fishing if the predicted economic advantage (the surplus value obtained after deducting fishing expenses from landings value or rent in resource economics terms) exceeds the cost of fishing (Lee & Viswanathan, 2020). In Cambodia, there is a relatively low chance of penalty for illegal fishers due to weak MCS system; hence, the fishers might violate the catch limit, enter the prohibited area, and target small or endangered species, (Ferber, 2016). Moreover, the cost of fishing illegally is lower, considering the cost of licensing, registration, and vessel specification have been reduced. Fishing vessels operating unlawfully reduce costs in licensing, registration, and vessel specifications (SEAFDEC, 2016, as cited in Ferber, 2016).



### 3.3.2. Institutional

The institutional driver for IUU fishing refers to the insufficiency and limitation of fisheries management and the enforcement of the law, rules, and regulations. According to MRAG (2005, as cited in Asia-Pacific Economic Cooperation Fisheries Working Group, 2008), MCS and governance limitations are the two dominant factors. These two factors are relevant to Cambodia's context. In term of MCS, Cambodia has a weak system as Cambodia lack professional inspectors; effective patrol vessels; effective sanctions/penalties; faces corruption issue; lack control of transportation and transshipping of fish and fish products; and lack of VMS/GPS tracking system (RGC, 2020). Due to the lack of well-trained staff, enforcement from the responsible authority is poor (Pramod, 2018). Because of the lack of equipment, human resources, and capacity, the inspection at sea and landing sites is minimal and rare, and Navy participation is also not common (Pramod, 2018; RGC, 2020). Human resource is an obstacle at the national and provincial levels. Additionally, it was discovered that the local and provincial offices of the FiA had limited staff that needed to perform an important mission to oversee illegal fishing, enforcement, and activities related to conservation (UNIDO &MAFF, 2015; MAFF, 2020a).

On the other hand, in terms of governance, Cambodia is facing an enforcement issue. For example, According to Article 38 of the Law on Fisheries (FiA, 2007), foreign vessels fishing in Cambodia must be under agreement with the Ministry of Agriculture, Forestry and Fisheries after gaining approval from the Royal Government of Cambodia; however, Cambodia has an ineffective registration and licensing of fishing vessels and related activities. (RGC, 2020). The enforcement agencies' corruption is also one reason that law is not properly imposed on foreign vessels (Lee & Viswanathan, 2016; Ferber, 2016). Cambodia suffers various challenges with boat licensing and registration, including that few vessels register for a fishing license and that license enforcement is insufficient. FiA is responsible for issuing the fishing license and is facing the issue of human resources for coastal provinces' staff, who have to enforce the law (MAFF, 2020a). Furthermore, in terms of vessel registration,

MPWT does not have sufficient capacity to register many small fishing vessels in Cambodia. As a result, only a small number of vessels are registered (or licensed)." (SEAFDEC, 2022a, p. 128). Moreover, under the current regulation, they are mandated to have a prior registration with MPWT. Thus, it is challenging for FiA to issue a license (MAFF, 2020a). For instance, according to the marine fishing vessel census report of FiA, among 7 752 marine fishing vessels, only 234 have been registered, and only 191 have been requested for fishing licenses (MAFF, 2020b).

### **3.3.3.Social**

The social status of the fishers can also be the driver for IUU fishing, known as the social drivers as identified by Gallic and Cox and Lee and Viswanathan studies in 2006 and 2020 (Gallic & Cox, 2016; Lee & Viswanathan,2020). The high density of the population and low level of education can encourage fishers to involve in IUU fishing (Gallic and Cox, 2016, as cited in Lee and Viswanathan, 2020). Poor social conditions like low income, fish stock decline, and high unemployment may result in labor working on the IUU fishing vessel or the fishers using illegal fishing methods. In Cambodia, "income generated from marine fishing activities has decreased in recent years due to market constraints, poor quality raw materials, resource depletion, and insecurity" (FAO, 2019). The typical income per family/ month is only between US\$ 25- US\$ 30 in Kompot province. (FAO, 2019). According to UNIDO & MAFF (2015), due to an unstable market, the Cambodian fisher in the province near Thailand prefer to land the catches in Thailand, citing more economic benefit. Unfortunately, this type of business is unregulated and unreported in official catches and thus considered informal business (UNIDO & MAFF 2015).

In seeking jobs, many Cambodian fisher have been trafficked into Thailand's fishing industry. "For instance, Chan Um, a Cambodian from Svay Rieng, was trafficked more than 7,000 kilometers via refrigerated cargo vessel (reefer) from Samut Sakhon, Thailand, to a remote area of the East African coast, where he spent 13 months before being rescued during a Thai government inspection at sea" (Human Right Watch,

2018, p. 78). The presence of poor economic conditions and prospects creates a ready and cheap labor pool for IUU/FOC boats in various developing nations (Gallic & Cox, 2016). Furthermore, according to Asia-Pacific Economic Cooperation Fisheries Working Group (2008), individual fishers are frequently driven into IUU fishing operations by the desire to produce an income and the lack of alternative revenue options. For example, there is also an issue of Cambodian working on the IUU vessel (RGC, 2020). In 2012, five Cambodian captains were found operating Thai vessels by the Thai Navy and being charged with illegal fishing and immigration charges (Panrak, 2012).

### **3.4. The impact of IUU fishing in Cambodia**

It is undeniable that IUU fishing has significant impact on the global, regional, and national scale. This section will aim to identify the impact of IUU fishing in Cambodia.

#### **3.4.1. Economic Impact**

IUU fishing has affected many countries, especially small and developing countries. The most apparent reason is the loss of revenue that could generate from the legal catches (Asia-Pacific Economic Cooperation Fisheries Working Group, 2008). According to the RGC (2020), Cambodia loses USD 27-56 million annually, equal to 26,500 – 37,500 tons. There is also a potential impact on the tourism industry resulting from the environmental damage caused by IUU fishing (Asia-Pacific Economic Cooperation Fisheries Working Group, 2008). Furthermore, IUU fishing can make Cambodia lose an opportunity to access big markets such as the EU because the EU employed the IUU regulation 1005/2008, a market-driven measure, which could affect both countries that send their products to the EU and countries that do not send their product to the EU.

#### **3.4.2. Environmental Impact**

Marine resources are in decline and struggling to replenish due to frequent and intense fishing pressure (Ferber, 2016). The marine biodiversity (seagrass/coral reefs) is

threatened by the destructive fishing practices of domestic and foreign fishing vessels (RGC, 2020; MCCteam, 2013). Additionally, according to RGC (2020), no impact assessment has been done on the impact of foreign vessels on fisheries resources and the local coastal communities' well-being. Cambodian fishing vessels use illegal, destructive, and banned gears such as trawls, gill nets, crab trap different from the legal limit, and dynamite, motorized, push nets, electric trawls, and rat-tail crab pots (RGC, 2020). On the other hand, foreign vessels also used illegal gear such as pair trawls, electric trawls, and lights and employed some illegal fishing methods, which have not yet been assessed (RGC, 2020). Such illegal methods are usually associated with the bycatch of other species and ecosystem destruction. For example, bycatch made up 40% of the total catch according to FiA data, 2018, and this number is highly concerning and shows the need for adequate fishing gear regulation (MAFF, 2020a; UNIDO and MAFF, 2015). Furthermore, according to Burke et al. (2002, as cited in Asia-Pacific Economic Cooperation Fisheries Working Group, 2008), Cambodia's coral reefs are in decline due to illegal fishing by foreign vessels. Additionally, as trawling persists, entire seagrass and coral reef habitats have been destroyed, leaving muddy and lifeless ecosystems with little hope of recovery (Anon, 2017, as cited in Pramod, 2018).

### **3.4.3. Social Impact**

According to a World Bank Group report, the depletion of fish stocks and loss of ecosystem function and services related to illegal fishing harms poor populations' future development prospects (Miranda, Wright & Khan, 2019). Indeed, IUU fishing decreases the resources available for legal fishing activities by adding to the pressure on fish stocks already under stress, which negatively impacts the sector's legal job opportunities (Milieu, 2021). The loss of job possibilities related to catch and post-harvest work and potential social migration unrest brought on by the overfishing of stock that coastal communities rely on (Asia-Pacific Economic Cooperation Fisheries Working Group, 2008). According to WorldFish Center (. n.d. as cited in Asian Development Bank 2021), in Cambodia, the fisheries sector offers full-time and

seasonal work to around 2 million out of 15 million people, among which 10,000 people work in the marine fishery sector. Also, the employees involved in the marine fisheries production chain, such as drivers, transport, boat yards, etc., will be affected.

Also, there is a nutritional impact on the coastal communities that relies on fish for their source of nutrient (Asia-Pacific Economic Cooperation Fisheries Working Group, 2008). Fisheries are essential in terms of food security for Cambodians, not only the coastal communities. Cambodian consumption of fish per capita is one of the high in the world, "on average, fish provides around 66 percent of daily animal protein and 19% of total protein consumption for Cambodians and is also a critical source of essential vitamins and micro-nutrients" (UIDO & MAFF, 2015). There is also concern regarding human safety in relation to a transnational crime involving IUU fishing operations such as human trafficking, drug and arms dealer, etc. According to United Nations Inter-Agency Project on Human Trafficking [UNIAP] (2009), thousands of Cambodian men, women, and children (estimated) are trafficked annually to Thailand, and some are deceived onto long-haul fishing boats that are out at sea for up to two years. In 2015, more than 1000 fishermen from Cambodia, Thailand, Laos, and Myanmar were trafficked in IUU fishing-related operations vessels (Chapsos and Hamilton, 2019; IOM, KKP and Coventry City, 2016, as cited in Stefanus & Vervaele, 2021). Therefore, these impacts are alarming for the government to respond promptly and efficiently.

## **Chapter 4 : The EU Regulation to prevent, deter and eliminate illegal, unreported and unregulated fishing**

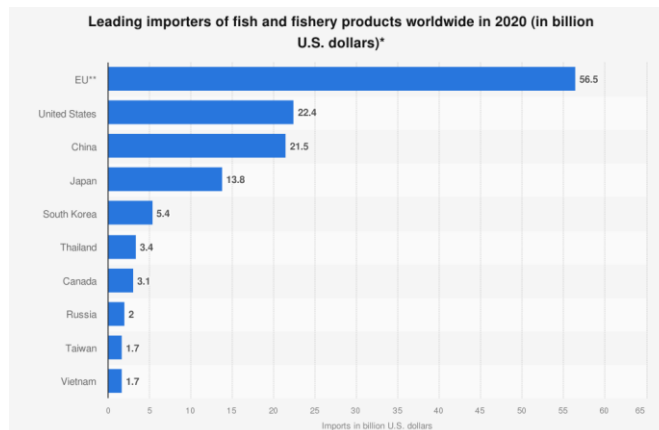
As has been highlighted in Chapter 2, the EU's IUU regulation (market-based measure) serve as a mechanism in which the region responses to IUU fishing. this chapter aim to comprehensively look into the regulation which has been introduced to prevent, deter, and eliminate illegal, unreported, and unregulated fishing and its implementation on Cambodia.

### **4.1. Introduction to EU regulation in response to IUU fishing**

#### **4.1.1. Overview of the European Union as a Market State**

The EU is the biggest market for seafood products in the world. According to FAO (2021c), the EU is the top importer of fish and fishery products, followed by the United States, China, Japan, and others in 2020. The import value was around 56.5 billion dollars (**Figure 4**) which are 78% of the total value (FAO, 2021c; European Union, 2021). Fish and fishery products are imported from almost 150 countries around the world as shown in (**Figure 5**), led by Norway at 26%, followed by the UK at 7%, China at 6%, Morocco at 5%, Ecuador at 5%, and Iceland at 4% (Holland, 2019; European Union, 2021).

**Figure 4.** Leading importers of fish and fishery products worldwide in 2020 (in billion U.S. dollars) \*

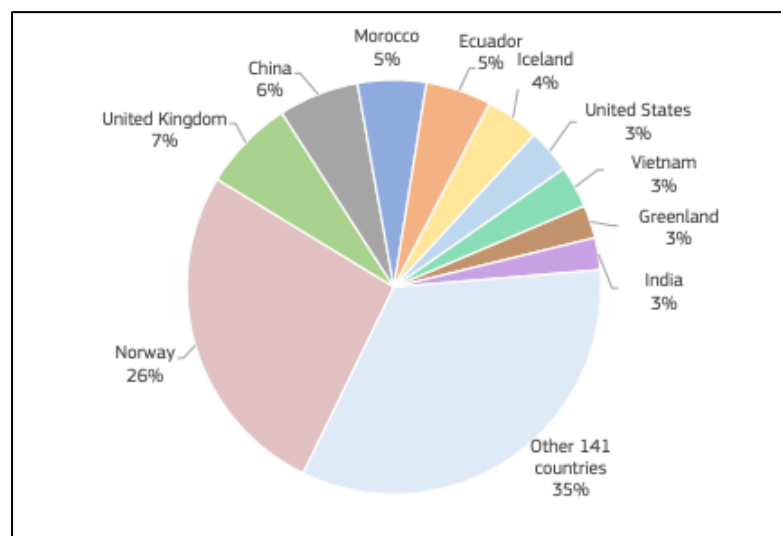


**Note:** \* Estimated

\*\* EU 28. Including intra-trade. Cyprus is included in Asia as well as in the European Union

*Note.* From *Leading importers of fish and fishery products worldwide in 2020 (in billion U.S. dollars)* \* [Graph], by Statista, 2021, Statista (<https://www.statista.com/statistics/268266/top-importers-of-fish-and-fishery-products/>). Copyright 2022 by Statista

**Figure 5. TOP EXTRA-EU COUNTRIES OF ORIGIN IN 2020 (IN VALUE)**



*Note.* From *The EU Fish Market* (p.65), by European Union, 2021, European Union

([https://www.eumofa.eu/documents/20178/477018/EN\\_The+EU+fish+market\\_2021.pdf/27a6d912-a758-6065-c973-c1146ac93d30?t=1636964632989](https://www.eumofa.eu/documents/20178/477018/EN_The+EU+fish+market_2021.pdf/27a6d912-a758-6065-c973-c1146ac93d30?t=1636964632989)). Copyright 2021 by European Union

Food safety in the EU is under the European Commission's Directorate-General for Health and Consumer Protection (SANCO), which works to ensure the import rules'

objectives are met. It is important to note that all the imported fish and fishery products need to "fulfil the same high standards as products from the EU Member States - with respect to hygiene and consumer safety and, if relevant, also to the animal health status." (European Commission, n.d, para.2). Hence, to be able to import fish and seafood products to the EU's market, countries or businesses have to go through strict rules and regulations of the union. However, although the EU is commonly known for strict rules and regulations, according to the Commission of the European Communities (2007, p.2), "Illegal fisheries import into the EU have been estimated conservatively at € 1.1 billion a year."

Thus, as a market state, the EU is active and has always been playing a leading role in combating IUU catches. The EU is trying to stop IUU catches from having access to the European market as a way to combat IUU fishing, protect honest fishers, and protect the health of the environment and global fish stocks (European Commission, 2022b).

#### **4.1.2. Overview of the Regulation**

To combat IUU fishing and prevent illegally captured fish from entering its market, the EU introduced what is possibly the world's most stringent anti-IUU fishing regulations in 2008 (IUU watch 2015a). The EU regulation to prevent, deter and eliminate illegal, unreported, and unregulated fishing or the IUU regulation (1005/2008) was introduced in 2008 and entered into force in 2010; it is one of the three EU's fisheries control system (IUU Watch, 2016). The goal of the EU fisheries control system is to guarantee that the regulations of the common fisheries policy (CFP) are appropriately enforced so that fishing and aquaculture operations are ecologically, economically, and socially sustainable, as well as a source of healthy food for EU inhabitants (European Commission, 2022c). The other two pillars are the regulation concerning sustainable management of external fishing fleets - Regulation (EU) N°2017/2403 and the regulation establishing a Community control system for ensuring compliance with the rules of the common fisheries policy - Council Regulation (EC) N°1224/2009, "which is aimed at ensuring compliance with the EU's



Common Fisheries Policy, and the Fishing Authorisation Regulation, which concerns authorisations for fishing activities of EU vessels outside EU waters and the access of non-EU vessels to EU waters." (Regulation (EC) of 12 December 2017, 2017; Council Regulation of 20 November 2009, 2009; IUU Watch, 2016, p.5). Altogether, this system attempts to enhance transparency and non-discrimination between EU and non-EU fisheries (IUU Watch, 2016).

This IUU regulation (1005/2008) is the main part of the EU's legal framework against IUU fishing globally, and "its primary objective is to prevent, deter and eliminate the trade of IUU-caught products into the EU" (Popescu, 2022, para 1). The regulation is divided into twelve chapters which cover the definition and scope of IUU fishing; the inspection of a third country fishing vessel in the EU member ports; catch certificate scheme for importation and exportation of fishery products; community alert system; identification of fishing vessels engaged in IUU fishing; non-cooperating third countries; measures in respect of fishing vessels and states involved in IUU fishing and others. This is a world-leading legislative mechanism designed to halt the flow of IUU-caught fish into the EU market; a complete and highly systematic strategy for combating IUU fishing within and outside EU jurisdiction, and the EU believes this policy to be the first of its type (IUU Watch, 2022a; Denopra, 2015).

One of the important components of IUU regulation is a multi-step mechanism for dealing with non-EU countries deemed uncooperative in combating IUU fishing (Popescu, 2022). The non-cooperative third countries can be found in chapter VI of the regulation. According to Article 31 (3), a country many consider the third non-cooperating country "if it fails to discharge the duties incumbent upon it under international law as flag, port, coastal or market State, to take action to prevent, deter and eliminate IUU fishing." (Commission Regulation of 29 September 2008, 2008, p.18). Once the third countries have been identified as non-cooperation countries, they potentially are subjected to a trade ban from the EU.

In implementing the regulation, the EU established the so-called "Carding Scheme" to curb the non-EU countries that fail to address IUU fishing. A fundamental component of the EU's carding process is assessing each third country's competence to meet its international commitments and the requirements of the EU IUU Regulation and then providing help to meet those requirements (IUU Watch, 2015a).

Non-EU countries will be getting help “evaluating their fisheries management and MCS procedures against their international obligations as flag, coastal, port or market States; assessing the adequacy of their systems with respect to EU IUU Regulation requirements and identifying key gaps or weaknesses in their frameworks and/or systems requiring further attention.” (IUU Watch, 2016, p. 4).

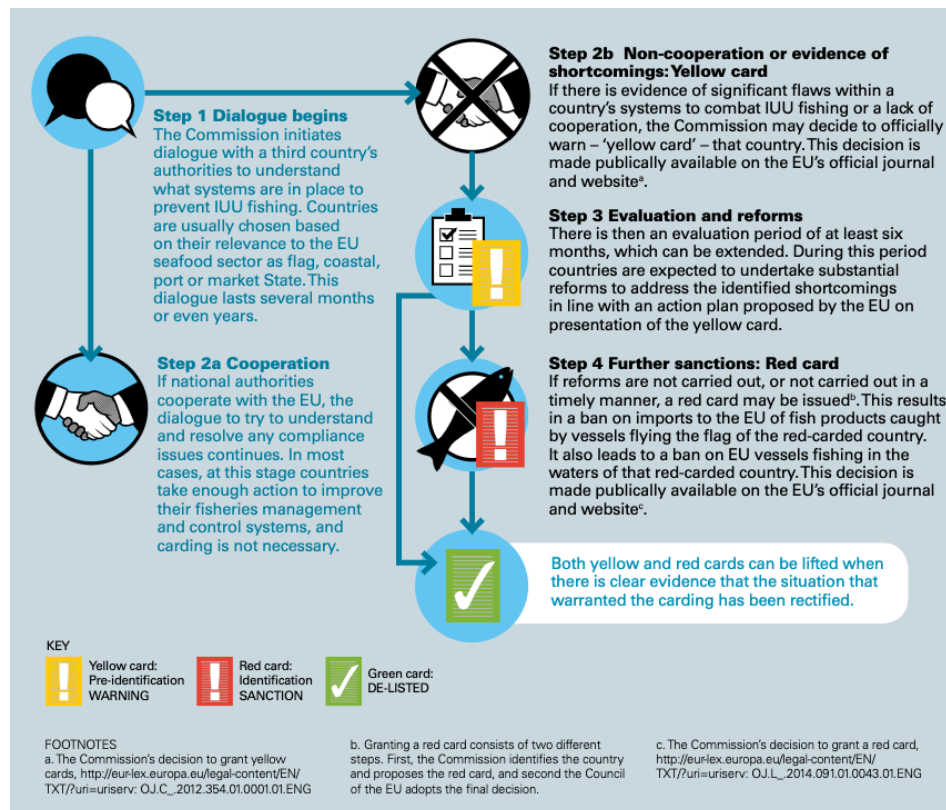
#### 4.1.2.1. Carding Process

The carding process is the procedure of identifying the third non-cooperating countries, which can be considered a core component of the IUU regulation (IUU Watch, 2016). The carding process will begin once the country that exports fish and fisheries products or has its fleets export fish and fisheries into the EU does not effectively tackle the issue of IUU fishing. There are three types of cards – “yellow card,” “red card,” and “green card,” and the carding process involve several steps. According to the regulation, a “yellow card,” which is equal to the warning, will be issued to countries are lacking in addressing the issue of IUU fishing under its jurisdiction, and “red card” which equal to a ban in export of fish to the EU will be issued if countries fall short in curbing IUU fishing (Sumaila, 2019). **Figure. 6** demonstrates the key stages of the carding process. According to IUU watch (2015b),

The Commission and third country authorities enter into a dialogue which can last months, and even years, to assess the systems in place to prevent IUU fishing and their compliance with international rules according to the following categories:

1. The compliance of a third country's legal framework with international rules , for instance, the implementation of flag State obligations for the registration of vessels, and the existence of systems for monitoring, inspection and enforcement, and for the delivery of effective sanctions;
2. The ratification of international treaties and participation in regional and multilateral cooperation; this includes membership of RFMOs<sup>7</sup> and compliance with RFMO conservation and management measures, for instance, with regard to reporting obligations, carrying observers on board, and tracking of authorized vessels;
3. The implementation of appropriate measures, allocation of adequate financial, human and technical resources, and establishment of administrative and technical structures necessary to ensure control, inspection and enforcement of fishing activities. For instance, countries need to maintain an accurate and updated list of vessels linked to an effective licensing system, and implement fisheries management and conservation measures;
4. The application of adequate monitoring, control and surveillance systems, including inspections and enforcement actions, both in the country's sovereign waters and outside these waters. (p. n.d).

**Figure 6.** Key stages of the carding process



*Note.* From *Improving performance in the fight against illegal, unreported and unregulated (IUU) fishing* (P.6), by IUU Watch, 2016, IUU Watch ([http://www.iuuwatch.eu/wp-content/uploads/2015/06/3rdCountryCardingGuidelinesReport\\_FINAL.LOW\\_.pdf](http://www.iuuwatch.eu/wp-content/uploads/2015/06/3rdCountryCardingGuidelinesReport_FINAL.LOW_.pdf)). Copyright 2016 by IUU Watch

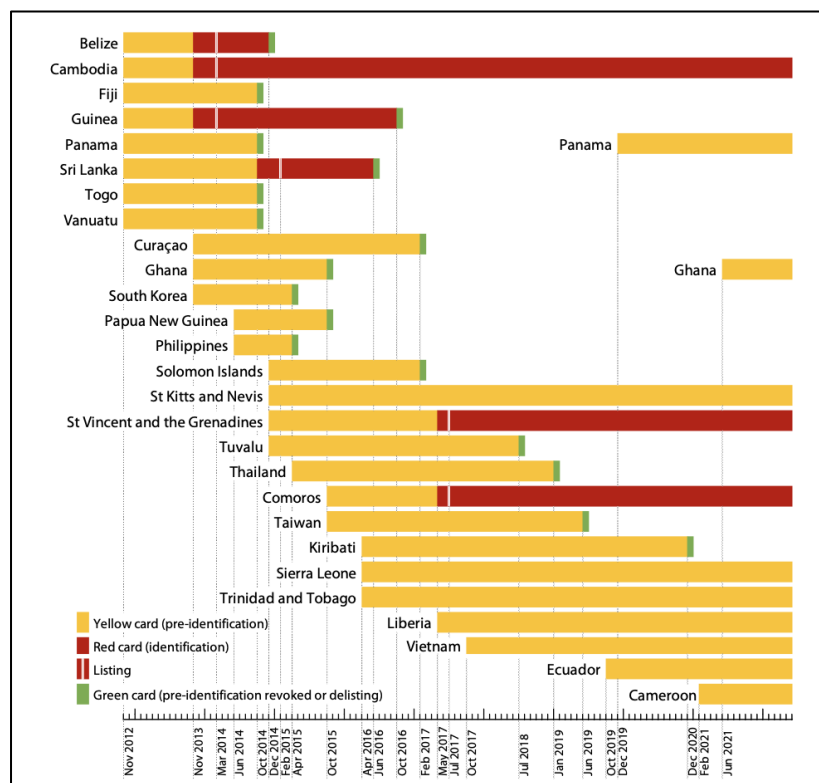
#### 4.1.2.2. The decision of the European Council

Since the IUU regulation came into force, several countries have received a yellow card and undergone tremendous reform in their response to IUU fishing. While some countries that have not fulfilled the requirement have received the red card. As of August 2021, the EU has engaged with over sixty-three countries seeking improvements in measures to combat IUU fishing, with the majority undertaking key reforms recommended by the EU with no need for warnings. Twenty seven countries received yellow cards to improve their fisheries management; for some, these formal warnings were issued multiple times. Of these, 14 undertook reforms and have been delisted. Six countries have been identified as 'non-cooperating' and issued red cards, which means a trade ban on their seafood products entering the EU; to date, four

countries – Cambodia, Comoros, Saint Vincent, and the Grenadines – remain red-carded (IUU Watch, 2022b). **Figure 7** shows the carding process's progress since the regulation's implementation.

According to IUU Watch (2016), “the most commonly cited shortcomings were grouped into five broad categories, as follows: 1. National legal framework 2. Fulfilment of flag State obligations to control the activities of flagged vessels 3. Implementation by coastal States of conservation and management measures 4. Regional and multilateral cooperation in fisheries management and enforcement. Market State measures and traceability (n.d.).

**Figure 7.** Overview of the procedures launched by the Commission, and their progress over time.



Note. From *Illegal, unreported and unregulated (IUU) fishing*, by P. Irina, 2022, European Parliament

([https://www.europarl.europa.eu/RegData/etudes/ATAG/2017/614599/EPRS\\_ATA%282017%29614599\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/ATAG/2017/614599/EPRS_ATA%282017%29614599_EN.pdf)). Copyright

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## **4.2. The EU's IUU red card for Cambodia**

As per the previous section, since the implementation of the IUU regulation in 2010, several third countries have received yellow cards; some have even received red cards, including Cambodia. In 2012, Cambodia, along with seven other countries— Belize, Fiji, Guinea, Panama, Sri Lanka, Togo, and Vanuatu— had gotten a yellow card from the EU (IUU Watch, 2015a). Unfortunately, in 2013, the EU issued a red card to Cambodia, considering Cambodia has not been able to make sufficient reform to tackle IUU fishing effectively. Thus, this section aims to analyze the procedure launched by the Commission on Cambodia since the warning was issued (yellow card) to a trade ban (red card) on Cambodia's fish and fisheries products, the impact on Cambodia, and Cambodia's responses.

### **4.2.1. EU's IUU Yellow card for Cambodia**

In 2012, the EU released the commission decision on notifying the third countries that the Commission considers possible to be identified as non-cooperating third countries according to the Council Regulation (EC) No 1005/2008 on establishing a community system to prevent, deter and eliminate illegal, unreported and unregulated fishing that includes Belize, Cambodia, Fiji, Guinea, Panama, Sri Lanka, Togo, and Vanuatu. The commission decision highlights the Commission's finding after the mission to each country has been carried out in the context of administrative cooperation provided for in Article 20(4) of the IUU Regulation.

Regarding the Kingdom of Cambodia, the mission was carried out from 18 to 20 Oct, 2011, to confirm the information on Cambodia's arrangements for the implementation, control, and enforcement of laws, rules, and conservation and management measures that must be followed by its fishing vessels, as well as steps implemented by Cambodia to meet its duties in the fight against IUU fishing (Council Decision of 15 Nov 2012, 2012). UNCLOS – article 91, 94, 117, 118—and Frameworks established by the regional organization to which Cambodia is the member and other information derived from publicly available data published by RFMOs, specifically ICCAT, the

Commission for the Conservation of the Atlantic Marine Living Resources (CCAMLR), WCPFC, NEAFC, NAFO, and SEAFO in the form of Compliance Reports or IUU vessel lists, and publicly available information retrieved from the NMFS report, were used to evaluate the compliance of Cambodia as a flag state, port, coastal or market state (Council Decision of 15 Nov 2012, 2012, Sole Article). Additionally, the commission refers to Articles 31(4) to (7) of the IUU regulation for reviewing.

The Commission has identified several shortcomings as follows:

- Failure to manage the fishing fleets. According to the RFMO IUU fishing vessel list, fishing vessels flying the Cambodian flag or having Cambodian licenses were found engaged in Illegal fishing activities in CCAMLR area. In this regard, the commission recalled that “pursuant to Article 94 (2) b of UNCLOS, the flag State assumes jurisdiction under its internal law over each ship flying its flag and its master, officers, and crew” (Council Decision of 15 Nov 2012, 2012, para.77). There is no genuine link between flag state and the vessel. Therefore, Cambodia has failed to fulfill its responsibility as a flag state in accordance with international law as well as a recommendation from the IPOA-IUU and Regional Plan of Action to promote responsible fishing practices, including combating IUU fishing in the Asia-Pacific Fisheries Committee (APFIC) (APFIC RPOA) which Cambodia is a member (Council Decision of 15 Nov 2012, 2012).
- Failure to ensure effective enforcement measures due to the lack of specific legislation in response to IUU fishing. The commission does not consider Cambodia’s measure, which is the de-registration of the fishing vessel, as a practical measure. Furthermore, it does not have an effective sanction system to ensure the punishment outweighs the benefit of IUU fishing (Council Decision of 15 Nov 2012, 2012).
- Failure to implement international rules. According to the Council Decision of 15 Nov 2012 (2012), besides the 1958 Geneva Convention on the High Seas and the 1958 Convention on the Territorial Sea and the Contiguous Zone,

“Cambodia did not sign or ratify any of the international agreements specifically governing fisheries” (para.88).

On that note, it is important to note that Cambodia is not the member of UNCLOS. Regardless, the commission has expressed that

The provisions of UNCLOS on the navigation in the high seas (Articles 86-115 of UNLCOS) have been recognised as customary international law. These provisions codify pre-existing rules of customary international law and take over almost verbatim the wording of the Convention on the High Seas and the Convention on the Territorial Sea and the Contiguous Zone, which Cambodia has respectively ratified and acceded to. For this reason, it is immaterial whether Cambodia has actually ratified UNCLOS. (Council Decision of 15 Nov 2012, 2012)

And thus, according to Rosello (2017), “by specifically highlighting the customary character of certain norms, the Commission sought to rely on obligations that did not depend on Cambodia's consent to be binding.” (p.308). However, the commission reference Art 94. 2 (b) is overreach because

the provision does not by itself impose a duty to cooperate specifically by subjecting vessel operations to the fishing constraints imposed by the rules of RFMOs. The Cambodia decisions made reference to voluntary instruments as rules of reference rather than conduct standards directly connected with LOSC Article 94.2 (Rosello, 2017, p.308)

#### **4.2.2. EU's IUU Red card for Cambodia**

Following the yellow card, the Commission and the Cambodian government met and discussed the issue identified by the Commission. After having reviewed Cambodian obligation as a flag state, port, coastal, or market State and its compliance; the



compliance with the finding in the Council Decision of 15 November 2012, the Commission have concluded Cambodia has failed to fulfill its obligation as a flag state to take action to prevent, deter and eliminate IUU fishing and thus include in the non-cooperating third countries list (COUNCIL IMPLEMENTING DECISION of 24 March 2014, 2014). The Commission has identified the shortcoming related to:

- Several failures to implement international law obligations;
- Failure to adopt an adequate legal framework;
- Lack of adequate and efficient monitoring, the lack of a control and inspection scheme, and to the lack of a deterrent sanctioning system;
- Lack of compliance with international obligations and the conditions for the registration of vessels according to international law (COUNCIL IMPLEMENTING DECISION of 24 March 2014, 2014, para.23).

#### **4.3. Cambodia responses to the red card**

This section aims to explore the post-red card period in Cambodia. This will highlight the impact and the changes that have taken place since Cambodia received a red card from the EU. It is vital to note that the EU is not one of Cambodia's export destinations. Thus, according to "the director of the Fisheries Administration in the Ministry of Agriculture, Nao Thuok, it was a largely symbolic move as Cambodia does not export any fish to the EU, meaning trade will not be adversely affected" (Peter, 2014, para.5). Nevertheless, the red card from the EU has affected Cambodia reputation on the global stage and the opportunities to access the EU's market as well as the diplomatic relation with the union. Back in 2008, Cambodia planned to export its fish and fisheries products to the EU if the EU approved the standard test. Therefore, the Cambodian government needs to implement changes according to the commission's recommendations since getting de-listed will open up a big opportunity for the country's fisheries industry.

Since then, the Cambodian government has worked closely with the Commission and FAO to address the shortcomings identified. Also, the European Union has supported

MAFF and FiA through EU-funded programs such as Fisheries and Livestock 2013-2018 and Cambodia Programme for Sustainable and Inclusive Growth in the Fisheries Sector (CAPFISH-Capture). For instance, recently, through the CAPFISH-Capture program, in May 2022, the EU donated seven maritime patrol vessels FiA to help the authorities fulfil their duty in suppressing fisheries offenses (Khouth, 2022).

#### **4.3.1. Legal and regulatory framework changes**

Numbers of fisheries law and legislation has been reviewed and revised. Currently, the law on Fisheries, 2006 that govern fisheries resources is under revision with the help of FAO to be in line with international best practice; reflect the specific situation of the country; more provision on marine fisheries (FAO,2020b; SEAFDEC, 2019).

Also, currently, Cambodia is implementing the NPOA-IUU (2020-2014) that follows the recommendation from FAO's IPOA-IUU in tackling IUU fishing and the National Plan of Control and Inspection for Marine Fisheries (NPCI-MF) 2020-2024, which is aligned with the EC Council Regulation No 1124/2009 which aims to deal with the control and inspection issue in Cambodia, especially regarding MCS and VMS.

#### **4.3.2. Cooperation and Enforcement**

##### **4.3.2.1. Bilateral Cooperation**

Through the platform initiated by SEAFDEC, the Gulf of Thailand (GOT) Sub-regional Platform, Cambodia can have bilateral cooperation with Thailand and Vietnam. This platform “was set up to achieve the sustainability of transboundary species through (i) integration of fisheries and habitat management, (ii) capacity building and system improvement for fisheries management, and (iii) improvement of policy development process for agreement implementation. Through this platform, country members had opportunities to share information and knowledge on MCS, legal framework, and the status of their respective national fisheries management measures.” (SEAFDEC, 2019, p.10). In 2019, Cambodia and Thailand signed an MoU

on Fisheries Cooperation. On the other hand, Cambodia and Vietnam also have MoU signed to combat IUU fishing (Lee & Viswanathan, 2020).

#### **4.3.2.2. Participation in International Agreements and Initiative**

Since the carding process, Cambodia has ratified and became a party to the Agreement on Port State Measures to Prevent, Deter and Eliminate IUU Fishing (PSMA) in 2019. According to SEAFDEC (2022a), in implementing the agreement, Cambodia has established a national strategy and action plan, including the method of selecting the designated ports in the coastal province. Furthermore, in 2020, the Kingdom of Cambodia also deposited its instrument of accession to the UNFSA, which came into effect on December 11, 2001 (FAO, 2020b).

#### **4.3.3. Shut down the international shipping registration**

Since 2015 Cambodian government has decided to close the international shipping registration; thus, currently, there is no fishing vessel flying the Cambodian flag operating on the high sea. Previously, Cambodia has sold the registration rights to the private companies; therefore, the government has no direct control on its fleets.

### **4.4. The lesson-learned from the other countries**

This section aims to draw the experiences of countries – Belize, Vietnam, and Thailand that has received yellow card and red card from the EU. Belize received a yellow and red card along with Cambodia back in 2014 and got de-listed the same year. In contrast, Thailand and Vietnam got yellow cards in 2015 and 2017, respectively, and Thailand's yellow card got lifted in 2019. Although Vietnam's yellow card is still in place, the government of Vietnam firmly commits to having the card lifted as soon as possible. Therefore, the lesson from all three countries is essential for Cambodia to address IUU fishing, get the card lifted, and prevent it from happening again.

#### 4.4.1. Belize

Belize is one of the countries that received a yellow card in 2012 and a red card in 2014, along with Cambodia. However, in December 2014, the EC decided to revoke Belize from the non-cooperating third country after a huge reform from the Belize government in combating IUU fishing. Lessons from Belize are essential, although Belize is in a different region, Belize issue is similar to Cambodia. The EC has also found that vessel flying the Belize flag has engaged in IUU fishing. For that, Belize has also failed to exercise its obligation as a flag state. Therefore, Cambodia can take a few lessons from Belize reform as follows:

- Introduced a satisfactory, effective, and comprehensive monitoring, control, and inspection system (COUNCIL IMPLEMENTING DECISION of 15 December 2014, 2014). Belize has introduced a new High Seas fishing Act, 2013 that includes the national plan of inspection; establishing of a fishing monitor center and electronic catches system; upgrade in Vessel Monitoring System (VMS); application for an observer program; use of innovation MCS technology; and signing MOU with Global Fishing Watch and Ocean (IUU Watch, 2022a). These would help Belize regulate its fleet more effectively. The new Act also focuses on the deterrence sanction system, which has a strong punishment for fisheries offenses in which minor violence could be subject to a fine between US\$10,000 and US\$1,000,000 and serious offenses between US\$50,000 to US\$3,000,000 (IUU Watch, 2022a.).
- Set up a new vessel registration system via nationalization of the registry, which previously under private control; thus, through this renationalization, the government will be able to insert more control on their fleet as well as being able to fulfill the international obligation as a flag state (IUU Watch, 2022a.).
- Moreover, Belize has also joined the international agreements and initiatives (IUU Watch, 2022a).

#### **4.4.2. Thailand**

In 2015, the EU issued a warning “yellow card” to Thailand due to the lack of appropriate measures in addressing IUU fishing; hence, the country needs to undergo a fundamental regulatory reform in the fisheries sector. Following the warning, the government of Thailand has made a solid commitment to addressing issues. Those measures include:

- Comprehensive legal reform of fisheries law. The Royal Ordinances on Fisheries were introduced in 2015 and updated in 2017, which brought about several significant changes in fisheries management (Naiki & Rakpong, 2022).
- Strengthening MCS tools, including ensuring that the industrial fleet is completely covered by VMS and a reliable system of port inspections (World Bank, 2021). Moreover, the Fisheries Monitoring Center was established to oversee the VMS implementation (IUU Watch, 2022a).
- Participation in relevant international agreements and initiatives internationally and regionally (IUU Watch, 2022a).
- Initiate a critical and well-sound traceability system through the introduction of e- traceability system that could be covering the important fisheries data for a whole supply chain from sea to market (World Bank, 2021; Naiki & Rakpong, 2022).

#### **4.4.3. Vietnam**

In October 2017, the EU issued a yellow card to Vietnam. Besides issuing the warning, the EU also provided nine recommendations for the country; thus, after receiving the warning, the government of Vietnam has made a strong commitment to getting de-listed by making the reform that involves all of the core actors in the fisheries industry and to the extent of a whole political system (World Bank, 2021). The major concerns of preventing and eliminating illegal fishing outside its national Exclusive Economic Zone and improving the traceability of fishery products were addressed by the Vietnamese authorities through a number of actions taken in response to the EC's nine

recommendations (Yiamyut, 2019). According to the commission's second visit in 2019, the government of Vietnam has made a significant improvement with only some shortcomings. The Vietnamese government has taken the measure as follows:

- Amended the fisheries law to ensure compliance with international law, including UNCLOS, UNFSA, and PSMA, and in accordance with the actual situation of Vietnam; according to the new law, the fishing license and master certificates will be revoked if the fishing vessel was found violating the IUU fishing regulation or fishing illegally in foreign water and will receive a harsh penalty for fishery offense (Yiamyut, 2019).
- Improve the country's MCS of the fishing vessel by having a firm fishing vessel licensing management measure, port-in port-out controls, and more patrols at sea (World bank, 2021; Yiamyut, 2019). Many activities related to fishing vessel management has been implemented, such as setting up a fishing vessel database, up-to-date fishing vessel licensing information, and a plan for the development of sustainable fishing vessel (World Bank, 2021). Moreover, more institutions such as the coast guard, navy forces, and border defense forces have increased their inspection and control operations to prevent and eliminate Vietnamese illegal fishing in foreign water (Yiamyut, 2019).
- Ensuring the traceability of fish and fisheries products by having a proper catch certificate that issue and verified by the designated authorities (Yiamyut, 2019).
- Furthermore, based on the Commission's recommendations, Vietnam has also made significant efforts to set up mechanisms for monitoring fishing vessel activity, establish regulations, and implement gear labeling on fishing vessels (World Bank, 2021). The fishing vessels of 15 to 24 meters maximum are obliged to install the monitoring equipment and need to turn on 24 hours a day (The Government Decree No.26/2019/ND-CP, 2019).
- Additionally, the government of Vietnam also tried to raise awareness of the local fisheries regarding the regulation as well as setting the quota for offshore fishing fleets (World Bank, 2021; Yiamyut, 2019).

- Besides regulatory reform, “the commission highly praised Vietnam for joining and working to implement the FAO Port State Measures Agreement and the United Nations Fish Stocks Agreement, as well as signing bilateral cooperation agreements” (World Bank, 2021, p.20)

## **Chapter 5 : Conclusion, and Recommendations**

### **5.1. Conclusion**

IUU fishing is a threat to future sustainable fisheries, and its impact can be felt by every country. Every year the catches generated from the IUU fishing method are estimated at US\$ 10 – US\$ 23 billion. IUU fishing is a transboundary issue with economic, environmental, and social impact; thus, a strong response from the state, either a port state, flag state, or market state, is vital to address the issue. Additionally, regional and international cooperation is equally important.

Due to the economic reason, poor regulatory control over national fishers and fishing vessels, and insufficient management instruments to regulate fishing capacity, IUU fishing cost ASEAN billions of dollars and affects millions of people's well-being.

For Cambodia, the fisheries industry plays a vital role in food and nutrition security, employment, and economics. Despite having a small share in total fisheries production of the country, marine fisheries contribution keeps on increasing. Moreover, the marine fisheries sector also provides jobs for 10 000 people, excluding the other employment associated with the industry. Nevertheless, the sustainable marine fisheries in Cambodia are under the threat of the activities such as overfishing and overcapacity of the fishing fleet (IUU) fishing; coastal development; and habitat degradation, which have an economic, social, and institutional impact on Cambodia. Additionally, in 2014 Cambodia received a “red card” from the EU, meaning that Cambodia was banned from exporting fish and fisheries products to the EU market for that Cambodia has failed to effectively response to the issue of IUU fishing. By



receiving a red card, Cambodia's reputation is highly affected, and at the same time, Cambodia loses access to the EU's fish and fisheries products market.

This research highlights some international instruments governing fisheries that can help tackle and deter IUU fishing, especially in terms of financial and technical support that Cambodia needs in response to the issue. Furthermore, there are regional initiatives and platforms where Cambodia can expand its cooperation with other countries, share information, and enhance human resource capacity via capacity-building programs, regional workshops, and information platforms.

This study answers the formulated research questions by exploring the rationale behind IUU fishing and its impact in Cambodia. Unfortunately, several factors encourage IUU fishing activities in Cambodia that yield an economic, social, and institutional impact.

This research also looks into the EU IUU Regulation that enables the EU to encourage third countries to address IUU fishing through the carding (green, yellow, and red card) system and Cambodia's responses. Cambodia received the red card because Cambodia failed to manage its fishing fleet that engaged in IUU fishing and has an inadequate legal framework response to the issue. In response, the government has shown a strong commitment to addressing the issue through legal and regulatory reform, ratified international agreements, conducted capacity building to national and sub-national officers, and formulated the national plan of action in response to IUU aligning with the international and EU guidelines. These changes happened with the support from EU funding.

However, financial, human resources, and technical capacity to fully address the issue that has regional and international impact wide is still an issue facing the Cambodian government. Also, Cambodia still faces some limitations, including vessel registration and licensing, sustainable fisheries management, poor enforcement of law and regulation, weak MCS system, poor data collection system, corruption issue, shortage

of well-trained officers, and lack of involvement from relevant governments and private stakeholders. Nevertheless, the country has made a noticeable reform and is on the right track. Also, the government is working hard to address the EC concern that would result in a red card being lifted.

## **5.2. Recommendations**

Base on the above finding, the following recommendations aim to help Cambodian government fill the gaps in the response to IUU fishing as well as getting de-listed from the EU and prevent it from happening again.

### **1. Improve the fisheries management system**

In order to ensure suitable fisheries and to align with the EU requirement, action can be taken as follows:

- Establish the impact assessment of the presence of foreign vessels fishing in Cambodian water as well as assessing the health of the fish stock;
- Ensure the effective implementation of NPOA-IUU and NPOCI-MF. By doing so, Cambodia would ensure compliance with the international fisheries management standard in response to IUU fishing and enhancing MCS system. Furthermore, an impact assessment study should be done after the implementation of each plan to ensure efficiency and prevent future deficiencies;
- Improve the real-time surveillance of the EEZ by taking advantage of the available tool such as the Global fishing watch. These would help Cambodia in terms of surveillance capacity;
- Enhancing the number of well-trained officers to ensure the effectiveness of the enforcement and implementation of law and regulation. Also, the issue of corruption should be eliminated in a prompt manner as it is the root cause of the issue;
- Improve the data collection system, the effectiveness of catches documentation scheme, and traceability system through the introduction of an e-traceability

system that could cover the important fisheries data for a whole supply chain from sea to market; introducing the port-in-port-out control; and having a proper catch certificate that issues and verify by the designated authorities.

- Prevent the informal trade of fish by raising awareness among fishers;
- Enhancing the capacity through financial and technical support of the fisheries community to deal with illegal fisher in the community.

## **2. Reform the registration system and enhancing the capacity as a flag state**

Cambodia failed to fulfil flag state responsibility and got the red card from the EU due to the privatization of ship and fishing vessel registration rights, leaving no means for the government to control ships flying its flag. And since it closed in 2015, the government of Cambodia has shown an interest in reopening registration; however, there is no confirmation, and the government has not introduced a comprehensive management plan. Thus, should the government decide to reopen the register system, Belize's lesson, which is to renationalize the registry, is suitable in this context since the government could gain more control over its fleet.

Furthermore, the MPWT and MAFF should coordinate for smooth fishing vessel registration and licensing systems. In this sense, MPWT should recruit and train more officers to handle the fishing vessel registration, which is a requirement under the current law. Additionally, Cambodia could create electronic database systems to promote information sharing and exchange with other nations, pertinent organizations, and concerned national agencies (SEAFDEC, 2022a). Moreover, Cambodia needs a comprehensive administrative and legal framework to improve flag state capacity for effective fleet management and ensure international compliance.

## **3. Participation in International and Regional Agreements and Initiatives**

Currently, Cambodia is not a party to UNCLOS nor the Compliance Agreement, 1993, and Cambodia is not a member of any RFMOs. Although Cambodia has ratified PSMA, the implementation process is still a challenge for Cambodia. Thus, Cambodia

needs to work closely with both regional (SEAFDEC) and international organizations to ensure effective instrument implementation and response to IUU fishing, especially on MCS and PSMA implementation matters.

#### **4. Comprehensive Legal and Regulatory reform**

Although the current Fisheries Law is under revision. A few lessons can be taken into account from Vietnam's legal reform. Firstly, the specific IUU fishing provision. IUU fishing regulation can be found in many Chapters and Articles of Vietnam's New Fisheries Law 2017 (World Bank, 2021). For instance, Article 60, 61, 81, 82, and 83<sup>7</sup>. Secondly, Belize and Thailand have cooperated with a hash sanction in their new legal reform to serve as a good deterrent against IUU fishing. For serious offenses, fines of US\$50,000 to US\$3,000,000 were imposed in Belize, and in Thailand, fines of more than €3,000,000 were imposed for offenses involving overseas fleets in 2018 (IUU Watch, 2022a).

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<sup>7</sup> [https://seafood.vasep.com.vn/DATA/OLD\\_EN/Uploads/image/Phung-Thi-Kim-Thu/file/18\\_2017\\_qh14\\_372768\\_\(2-3-2018-929\).pdf](https://seafood.vasep.com.vn/DATA/OLD_EN/Uploads/image/Phung-Thi-Kim-Thu/file/18_2017_qh14_372768_(2-3-2018-929).pdf)

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## Appendices 1

According to FAO (2016),

- Article 5 calls for the integration and cooperation of relevant agencies at the national level to ensure the sound implementation of the agreement;
- Article 6 calls for cooperation and exchange of information of parties with relevant states, international organizations, and FAO;
- Article 7 state needs to publicize and provide the list of the designated port to FOA to which the vessel may request to enter;
- Article 8 mandates states to have an advance requirement for port entry;
- Articles 9 and 11 focus on the requirement for entry denial and the use of port;
- Article 12 requires states to reach the minimum amount of port inspection as agreed by RFMOs, FAO, or otherwise;
- Article 13-17 set out requirements for state in carry out the inspection and result exchange with flag state
- Article 20 lays out the responsibilities of the flag state
- Article 21 requires state parties to support and provide assistance to developing states
- Article 24 requires regular review and assessment of the agreement implementation



## Appendices 2

According to European Commission (2022a), RFMOs manage highly-migratory species (Tuna RFMOs):

- International Commission for the Conservation of Atlantic Tuna (ICCAT);
- Indian Ocean Tuna Commission (IOTC);
- Western and Central Pacific Fisheries Commission (WCPFC);
- Inter-American Tropical Tuna Commission (IATTC);
- Commission for the Conservation of Southern Bluefin Tuna (CCSBT).

And RFMOs that manage fish stock by geographical area are:

- North-East Atlantic Fisheries Commission (NEAFC)
- North-West Atlantic Fisheries Organization (NAFO)
- North Atlantic Salmon Conservation Organization (NASCO)
- South-East Atlantic Fisheries Organization (SEAFO)
- Southern Indian Ocean Fisheries Agreement (SIOFA)
- South Pacific Regional Fisheries Management Organization (SPRFMO)
- Convention on Conservation of Antarctic Marine Living Resources (CCAMLR)
- General Fisheries Commission for the Mediterranean (GFCM)
- Convention on the Conservation and Management of Pollock Resources in the Central Bering Sea (CCBSP)
- Agreement on the International Dolphin Conservation Programme (AIDCP) (a sister organization to IATTC)
- Fisheries Committee for West Central Gulf of Guinea (FCWC).