

# Journal of Social and Political Sciences

Yuwastina, Desti, and Pannindriya, Sri Tunggul. (2020), Life Below Water and Maritime Security. In: *Journal of Social and Political Sciences*, Vol.3, No.1, 59-71.

ISSN 2615-3718

DOI: 10.31014/ajor.1991.03.01.147

The online version of this article can be found at: https://www.asianinstituteofresearch.org/

Published by:

The Asian Institute of Research

The Journal of Social and Political Sciences is an Open Access publication. It may be read, copied, and distributed free of charge according to the conditions of the Creative Commons Attribution 4.0 International license.

The Asian Institute of Research Social and Political Sciences is a peer-reviewed International Journal. The journal covers scholarly articles in the fields of Social and Political Sciences, which include, but not limited to, Anthropology, Government Studies, Political Sciences, Sociology, International Relations, Public Administration, History, Philosophy, Arts, Education, Linguistics, and Cultural Studies. As the journal is Open Access, it ensures high visibility and the increase of citations for all research articles published. The Journal of Social and Political Sciences aims to facilitate scholarly work on recent theoretical and practical aspects of Social and Political Sciences.





The Asian Institute of Research Journal of Social and Political Sciences Vol.3, No.1, 2020: 59-71

> ISSN 2615-3718 Copyright © The Author(s). All Rights Reserved DOI: 10.31014/aior.1991.03.01.147

# Life Below Water and Maritime Security

Desti Yuwastina<sup>1</sup>, Sri Tunggul Pannindriya<sup>2</sup>

- <sup>1</sup>London School of Public Relations Jakarta. Email: d.yuwastina@gmail.com
- <sup>2</sup>London School of Public Relations Jakarta

#### Abstract

The paper analyses the UN Sustainable Development Goal "Life Below Water" as it relates to maritime security, particularly in the context of fisheries as the primary sector and marine and coastal tourism as the secondary sector. The structure of the analysis comprises a discussion of Life Below Water as Goal 14 of the UN's in 17 Sustainable Development Goals, IUU fishing as one out of seven maritime security threats and linkages between both. The research includes the impacts of IUU fishing as a maritime security threat toward the goal Life Below Water instead of the other way around through the case study method. The discussion primarily includes the situation in the Indonesian context with a particular focus on Ambon using social constructivism theory and 'grassroots' or community organizing theory. The result of the analysis is used to investigate the capacity of national enforcement in carrying out the international agenda. It can be concluded that SDG 14 succeeds in tackling the problem of IUU fishing.

**Keywords**: Maritime Security, Life Below Water, Fisheries, Marine And Coastal Tourism, UN SDG Agenda, IUU Fishing Enforcement

## Introduction

In 2015, the United Nations formulated 17 Sustainable Development Goals (SDGs) with the theme "Eradicating poverty and promoting prosperity in a changing world" (UN, 2017). One of the SDGs initiated is Life Below Water as Goal 14 with its specific purpose to promote sustainable use of marine resources. Threats to maritime security, such as Illegal, Unreported and Unregulated (IUU) fishing, jeopardise the ability of the global community to achieve the SDGs, specifically Life Below Water. This paper will explore the ways in which IUU fishing threatens the advancement of Life Below Water as the UN SDG 14. First, the paper discusses the UN SDGs, including Life Below Water, especially the goals and targets aimed by Indonesia. Second, the paper discusses IUU fishing as one of maritime security threats, especially IUU fishing cases in Ambon, Indonesia. Third, the paper discusses linkages between IUU fishing and the UN SDG 14 in which one directly impacts the other.

While the paper does not further discuss how maritime security is universally defined, there are, at least, eight specific maritime security threats (IOM, 2016, p. 4-5) as follows.

- 1. piracy and armed robbery at sea;
- 2. terrorist acts involving shipping;
- 3. offshore installations and other maritime interests;
- 4. illicit trafficking in arms and weapons of mass destruction;
- 5. illicit traffic in narcotic drugs and psychotropic substances;
- 6. smuggling and trafficking of persons by sea;
- 7. illegal, unreported, and unregulated fishing; and
- 8. intentional and unlawful damage to the marine environment.

Among the many different in the ocean economy, the fisheries sector itself is explained as the economic activity related to the production, processing and distribution of seafood consisting of four categories which are (1) fishing; (2) aquaculture; (3) seafood processing; and (4) seafood distribution and wholesale (Park & Kildow, 2014, p. 33). Aquaculture here is interpreted as offshore aquaculture. As illustrated, maritime security threat number seven, IUU fishing, is highly in line with the fisheries sector since both share the importance of direct fishing activity. The importance of the ocean economy here is key to comprehending the overall theme of the high-level political forum Sustainable Development Goals 2017.

Indonesia, as geopolitically destined to be a maritime country throughout history, participates in establishing the United Nation's Sustainable Development Goals along with other countries. Standing out as the biggest archipelagic state all in the world, Indonesia's maritime zone stretches up to 5.9 million km² with its EEZ covering 6,159,032 km² (Marsetio, 2014 as cited in Ritonga, 2016, p. 115). Before the Republic of Indonesia took on its current form, many kingdoms dominating the archipelagic state were held to be maritime-oriented for centuries as they expanded their maritime power followed by the Western people coming and trading to attempt to occupy the archipelago (Ritonga, 2016, p. 121-122).

It is no wonder, then, that today Indonesia is part of many maritime-oriented international partnerships. For examples, the Coral Triangle Initiative with six other countries, the International Hydrographic Organization (IHO) Hydrography Capacity Building Programme for Coastal States with 87 other governments (UN, n.d.). Indonesia also puts efforts against marine plastic debris under the Ministry of Environment Affairs and Forestry and substantially enlarges its maritime conservation area under the same ministry with the company of Ministry for Marine Affairs (UN, n.d.).

It should be borne in mind too that maritime security threat number eight, intentional and unlawful damage to the marine environment, is also mentioned occasionally in the following discussion due to the reality that the non-living domain below water makes the living domain possible. The non-living domain basically includes unrenewable sources. On the contrary, the non-living domain below water would not be utilised to its fullest without the living domain. Therefore, the capacity of national enforcement to combat IUU fishing, would certainly have beneficial impacts in carrying out the international agenda, SDG 14 Life Below Water. All in all, this paper will argue that Indonesia's current enforcement efforts are sufficient to ensure the achievement of the SDG 14 Life Below Water which determine the success of the SDG initiative.

#### **Problem and Purpose of Research**

This paper is guided by the following research questions.

- 1. How is Life Below Water employed in Indonesia?
- 2. How is IUU fishing employed in Indonesia?
- 3. What are the linkages between SDG 14 and IUU fishing?

The purpose of this paper is to this paper will argue that Indonesia's current enforcement efforts are sufficient to ensure the achievement of the SDG 14 Life Below Water which determine the success of the SDG initiative.

#### **Theoretical Review**

There are two theories used in this paper. The first one is about international relations that is social constructivism. The last one is about theory of change related to advocacy and policy change effort that is 'grassroots' or community organizing theory.

#### 1. Social constructivism

There are many international relations theories in which one of them is social constructivism. Compared to other theories that mostly focus on material power, such as military forces and economic capabilities, constructivists are not materialistic.

In general, social constructivism is "a set of ideas, a body of thought, a system of norms, which has been arranged by certain people at a particular time and place" (Jackson and Sorensen, 2006, p. 162). Strictly speaking, social constructivism is about identities and interests of states in the international arena in which "the norms of international society are transmitted to states through international organizations and shape national policies by 'teaching' states what their interests should be" (p. 169).

UN as a nonstate actor as well as international organization helps states in achieving their goals based on collective interests. In this case, UN promotes SDGs in which SDG 14 Life Below Water covers the sustainable use and conservation of sources below water as the interests of a state like Indonesia possesses.

#### 2. 'Grassroots' or community organizing theory

Every kind of advocates aim for changes in policy (Stachowiak, 2013, p. 1) which explains theory of change as "the conceptual model for achieving a collective vision" (Organizational Research Services, 2007 as cited in Stachowiak, 2013, p. 2). Specifically, 'grassroots' or community organizing theory as one of theories of change explains that "groups of people can create power by taking mutual action to achieve social change" and power is not exclusively owned by elites or few people (p. 20).

In this paper, combatting IUU fishing is the social change to achieve by taking mutual action through SDG 14. Moreover, the internationality of maritime security proves to be a collective vision despite national territories. In the case of Indonesia, particularly Ambon, this international issue can be overcome through the help of the local communities by maintaining their wisdom and practices. It means that such issue should be reached up to grassroots' level in the section of the linkages between IUU and SDG 14.

#### **Research Method**

The research method used in case study which is often used in social science studies allowing "the exploration and understanding of complex issues" (Zainal, 2007). Furthermore, case study research method is defined as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used" (Yin, 1984, p. 23 as cited in Zainal, 2007). There are three categories of case study in which this paper uses exploratory case study "exploring any phenomenon in the data which serves as a point of interest to the researcher" (ibid).

In this paper, sustainable use and conservation of sources below water and maritime security are complex issues as these involve the human existence in the long run. The phenomenon of combatting IUU fishing as a collective need and the context in Indonesia further intersect. Multiple sources from a number of governmental and nongovernmental organizations are taken.

#### Life Below Water

The concept of the Sustainable Development Goals itself was born at the United Nations Conference on Sustainable Development, Rio+20, in 2012 to replace the Millennium Development Goals (UNDP Indonesia, n.d.). These 17 Sustainable Development Goals by the United Nations are for countries to apply the agenda, which is not legally binding, to their national frameworks (UN, n. d.). Otherwise known as the Global Goals, "these goals are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity" (UNDP Indonesia, n.d.). One proclaimed goal to name a few is Life Below Water as Goal 14 "to conserve and sustainably use the world's oceans, seas and marine resources" (ibid). As water covers around 75% of the Earth's surface, Life Below Water as Goal 14 represents an issue of great importance in the quest to protect the planet.

The terms poverty and prosperity, of course, have much to do with economy. Essentially, "the study of economy that is economics explores the rational behaviour of human being who endeavours to fulfil his or her needs and wants" (Yusgiantoro, 2014, p. 10). Over the course of ending poverty as well as enjoying prosperity, one must not exceed the limit of sustainability of needs and wants. Any resources below water, which are renewable by default, should be maintained in such a way to match human demands in the long run instead of exacerbating the mind-set of renewable for the sake of its renewable-ness. That could be the reason as to why Yusgiantoro (ibid) emphasises that "economics is about making sense of how an individual, a company or a country behaves in responding scarcity of resources, including natural resources." It is believed that "marine protected areas contribute to poverty reduction by increasing people's income and improving health" (UN, n.d.). Overall, there are three out of ten items of Goal 14 Life Below Water that are discussed in the paper as follows:

- 1. 14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution;
- 14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans; and
- 3. 14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics. (UN, n.d., p. 28)

Even though the first two items are not directly linked to IUU fishing compared to item four, these two items could obviously enhance the marine environment which is crucial for fish to sustain their livelihood. Prohibiting any unsustainable fishing activity related to IUU fishing is not sufficient if the remaining destruction is purely left with biological recovery. Human participation in establishing a better marine environment is necessary to enhance the recovery of the destruction in the marine environment faster. Facilitating the inclusion of all stakeholders or four platforms of (1) academia and experts; (2) civil society and media; (3) philanthropy and business; and (4) government and parliament (National Development Planning/Head of National Development Planning Agency of the Republic of Indonesia, 2017), Indonesia focuses on two main aspects to eradicate poverty with the support of enabling factors, namely gender (Goal 5) and partnerships in various sectors, data and financing (Goal 17) as follows.

Table 1. Indonesia's Voluntary National Review 2017

(1) Improving the quality of human resources		(2) Enhancing economic opportunities for sustainable livelihood	
Focusing on achievements in:		Through increased efforts in:	
a.	The Health sector (Goal 3);	a. Industrial sector, innovation and	
b.	Food Security and Sustainable Agriculture	infrastructure (Goal 9); and	
	(Goal 2); and	b. Marine ecosystem conservation and its	
c.	Education (Goal 4)	sustainable use (Goal 14);	

(UN, 2017)

In maintaining the sustainability of its maritime zone, Indonesia unquestionably appreciates the Sustainable Development Goals. As said, the substance and objective of Sustainable Development Goals are in line with "Nawacita" (Indonesia's national development vision), National Long Term Development Plan (RPJPN) 2005-2025 and the National Long Term Development Plan (RPJMN) 2015-2019 (Brodjonegoro, 2017, p. iv). The more thorough explanation of goals and targets as delivered in High-Level Political Forum on Sustainable Development 2017, United Nations, New York on July 17<sup>th</sup>, 2017 is in the following.

Table 2. Goals and Targets of Policy and Enabling Environment

Goals	Targets	
Goal 1: No Poverty	End poverty in all its forms everywhere	
Goal 2: Zero Hunger	End hunger, achieve food security and improved nutrition and promote	
	sustainable agriculture	
Goal 3: Good Health and	Ensure healthy lives and promote well-being for all at all ages	
Well-Being		
Goal 5: Gender Equality	Achieve gender equality and empower all women and girls	
Goal 9: Industry, Innovation	Build resilient infrastructure, promote inclusive and sustainable	
and Infrastructure	industrialization and foster innovation	
Goal 14: Life Below Water		
Goal 17: Partnerships for The	Conserve and sustainably use the oceans, seas and marine resources for	
Goals	sustainable development	
	Strengthen the means of implementation and revitalize the Global	
	Partnership for Sustainable Development	

(National Development Planning/Head of National Development Planning Agency, 2017, p. 9-89)

The ocean is composed of two domains, equally living and non-living based on their type of resources in which living domain would go as renewable whereas non-living domain as non-renewable. The living domain which are renewable resources would be made up of aquaculture that could be processed as seafood, medicine, biofuel, cosmetics and tourist attraction. The non-living domain which are non-renewable resources would be made up of oil, gas and mining.

However, it is important to remember that the two domains discussed are those which are unlikely to trigger a dangerous situation or intrinsically not harmful to the environment. This is to say that to discuss certain protected marine biodiversity or oil-spilling and other toxic wastes would be a different topic despite their linkage. For example, Life Below Water as Goal 14 underlines the living aspect, specifically fisheries as aquaculture. Yet, to optimize the production of aquaculture, marine biodiversity is required to protect by regulating which areas can and cannot be accessed, which species that can and cannot be exploited, which procedure that can and cannot be applied in accessing the area and exploiting the species, so on and so forth. Thus, the protected marine biodiversity is not partially classified as aquaculture in this circumstance, but has a powerful significance to aquaculture due to the extent of accessing, exploiting and applying.

Remarkable as an archipelagic state with rich resources, Indonesia makes sure that these resources are well-managed for their own people to reap the benefits. In the context of fisheries sector, according to Prof. Dr. Ir. H. Rokhmin Dahuri, MS, a senior lecturer at IPB and the Minister of Marine Affairs and Fisheries of the Republic of Indonesia between 2001-2004 (Herdiawan, 2016, p. 21), "only 9.2% out of Indonesia's total marine potential is used within the maritime zone that acquires the economic potential as large as US\$1.2 trillion rupiahs per year possibly providing jobs for more than 40 million people". On top of that, "World Trade Organization announces in 2012 that six out of ten for the most beautiful coral ecosystems in the world are Raja Ampat, Wakatobi, Taka Bone Rate, Bunaken, Karimun Jawa and Weh Island", all of which are settled in Indonesia (Herdiawan, 2016, p. 21). The following is the biannual report of marine and coastal tourism visit in Indonesia.

Table 3. Marine and Coastal Tourism Visit Report

Destination	Number of Visitor	Number of Visitor	Increase (%)
	Per Year	Per Year	
Komodo National Park	41,833 (2011)	45,776 (2013)	9.42
Raja Ampat Archipelago	3,858 (2010)	6,037 (2012)	56.48
Wakatobi	2,274 (2011)	3,315 (2013)	45.77
Sabang	3,932 (2010)	4,622 (2013)	17.5

(Ministry of Tourism on Indonesia's Marine and Coastal Tourism National Seminar, 2014 as cited in Herdiawan, 2016, p. 22)

Expressing praise for the increase percentage, nonetheless, should be accompanied with alertness on trends of marine and coastal tourism. The sector of marine leisure and tourism is defined as "the economic activity related to marine and coastal leisure and tourism, which includes eating & drinking places, hotels & lodging places, marinas, marine sporting goods retailers, zoos, aquariums, recreational vehicle parks & campgrounds" (Park & Kildow, 2014, p. 33). Even though the essay discusses fisheries as the major sector in ocean economy, marine leisure and tourism is in direct contact to fisheries as such sector heavily depends on fisheries sector. It can be suggested right away that the less life below water is taken care of means the less marine and coastal tourism is accomplished. Hence, marine leisure and tourism sector should be kept in mind that its economic activity should maintain the sustainability of ocean due to its direct toxic waste or debris to the ocean if the sector is still interested to make use of ocean as its root of attraction at while at the same time providing employment. With higher incomes and upward consumption trends pointing to greater demand for cruise tourism and dietary habits (OECD, 2016, p. 26), the world's coral reefs which have been effectively destroyed, are under imminent risk and are under a longer-term threat of collapse (UN, n.d.) are in need of proper marine management as these coral reefs are home for the fisheries sector.

On the strength on the links between fisheries and coral reefs, Indonesia definitely proves to cooperate internationally. As part of the Coral Triangle Initiative with other six countries, including Malaysia, Papua New Guinea, Philippines, Solomon Islands, Timor Leste and Australia Government, this multilateral partnership for Sustainable Development Goals works on Coral Reefs, Fisheries and Food Security (UN, n.d.). Indonesia's marine wealth among others is as the largest *marine mega-biodiversity* in the world with 8,500 fish species, 555 seaweed species and 950 biota species associated with coral reefs (IOM, 2016, p. 10). Broad scientific consensus declare that the Coral Triangle represents the highest coral diversity with 76% of the world's known coral species and the highest reef fish diversity with 37% of the world's reef fish species concentrated in the area (ibid).

Against the backdrop of climate change, marine biodiversity is in either a loss or degradation of 50% of salt marshes, 35% of mangroves, 30% of coral reefs and 20% of sea grasses worldwide (Doney et al., 2009 as cited in OECD, 2016, p. 82). The extinction rate is 1,000 times higher—if humankind continues with the present unsustainable system of production and consumption it will be 10,000 times greater on average; affecting amphibians and birds, collapsing fisheries, diminishing forest cover, depleting fresh water systems (MA, 2005 as cited in Spring in Sosa-Nunez & Atkins, 2016, p. 32).

Another example of Indonesia's commitment to conserving the ocean environment can be seen from its partnership with the International Hydrographic Organization to support safety of navigation, safety of life at sea, the protection of the marine environment, coastal zone management and the better management, exploitation and governance of the seas and oceans and its resources (IHO, n.d.).

#### **IUU Fishing**

Standing for illegal, unreported and unregulated, each of three components of IUU fishing differs according to the type of fishing activity. The Food and Agriculture Organization (FAO) International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing states that:

- 1. illegal fishing refers to activities conducted by vessels operating in contravention to national laws or international measures;
- 2. unreported fishing is catch not reported or misreported to national relevant authorities or RFMO (Regional Fisheries Management Organisation); and
- 3. unregulated fishing is conducted by vessels without nationality or flying the flag of States not parties of relevant fisheries organizations and who therefore consider themselves not bound by their rules. (Schmidt, n.d., p. 2)

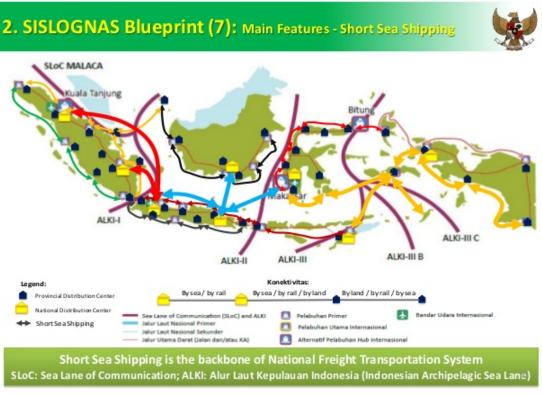
In addition to that, IOM (2016, p. 6) describes that illegal fishing principally deals with any vessels operating in waters without the permission of that state whereas unreported fishing covers both intentional and unintentional fishing activities. The urgency to combat IUU fishing in general is driven by, in contrast, the compliance of those fishers who act accordingly in terms of their fishing authorizations (FAO, n.d.). Furthermore, when it comes to economic calculation, Indonesia is losing trillions of rupiahs due to illegal fishing as conceded by the Minister of Marine Affairs and Fisheries of the Republic of Indonesia, Susi Pudjiastuti (IOM, 2015 as cited in Chapsos & Malcolm, 2016). This is why IUU fishing should be enforced the fact that the strategic location gives the path to Indonesia as "strategic fishing ground besides strategic junction of international shipping, strategic potential business and strategic key partner for powerful countries" (Kurnia, 2017, p. 286).

The brief discussion previously strengthens that IUU fishing should be taken seriously. For example, in the economic point of view, there are three components of fishing activity to determine the economic status of fisheries stock which are overfished, depleted or recovering; fully exploited (fully fished); and underexploited (underfished) (OECD, 2016). More assistance in monitoring, control and surveillance would help to combat IUU fishing for the capacity building of developing countries (OECD, 2006). Indonesia as a developing country should welcome such recommendation as the archipelagic state consists of a plenty of small islands in remote areas which, if overlooked and not properly managed, could turn into targets of IUU fishing.

In respect to national security, the threat paradigm complements the maritime security of the Indonesia's archipelagic state. "Compared to challenge, barrier and disturbance, the term threat is placed on the top of danger level" (Yusgiantoro, 2014, p. 525). Even though Yusgiantoro (2014), the former Minister of Defence of the Republic of Indonesia, does not explicitly mention IUU fishing, let alone maritime security, he divides threat into two forms, an actual form and a potential form, in which IUU fishing can fall into violation activity on land and at sea under actual form among five other actual threats. Nevertheless, this reveals the absoluteness of IUU fishing without any blurring lines that it must disadvantage a state actually straight to its core of security.

Since the analysis of this paper is on the state-level that is Indonesia with the focus on Ambon, it is important to give the idea of Indonesia's maritime situation in brief. With more than 17,000 thousand islands in total (Geospatial Information Agency of Indonesia, n.d., 2017), Indonesia finally reached a diplomatic achievement in acknowledging its maritime zone from 3 miles up to 12 miles through the Djoeanda Declaration 1957, then, proceeded later up to 200 miles through UNCLOS 1982 (Herdiawan, 2016). It can be perceived that this diplomatic achievement was only the beginning of everything for Indonesia as a state in the eyes of the international community to secure its maritime zone. Moreover, there are three sea lanes of communication in Indonesia's archipelagic state or *Alur Laut Kepulauan Indonesia* (ALKI) with four Asia-Pacific choke points embracing Malacca Straits, Sunda Straits, Lombok Straits and Makassar Straits (Ritonga, 2016).

Figure 1. Sea Lane of Communication and Alur Laut Kepulauan Indonesia (ALKI)



(Indonesian National Logistics Team, 2012)

Besides Malacca Straits in the western part of Indonesia which is well-known as one of the most crowded straits in the world, one recent shocking phenomenon of IUU fishing occurred in Ambon. To pinpoint the exact location, Ambon is near the northern part of ALKI III C in the eastern part of Indonesia. However, before proceeding with the complete case of IUU fishing precisely in Ambon, IUU fishing is not to be confused with "fisheries-related crime, such as corruption, money laundering, tax violation, customs related crime, immigration related crime, illicit drugs trafficking and human rights violations (human trafficking, forced labour and child labour)" (IOM, 2016, p. 16), although it is not uncommon that the case is presented with overlapping conditions of IUU fishing with another fisheries-related crime or the combination of these crimes. While such fisheries-related crimes are not particularly involved in IUU fishing, modus operandi of fisheries-related crimes which are, indeed, involved is in the following.

Table 4. Modus Operandi of Fisheries-Related Crime

#### Types of Fisheries Crime (IUU Fishing)

- 1. Forgery of vessel's document;
- 2. Double flagging & double registered;
- 3. Fishing without licences/appropriate documents (sailing without port and seaworthiness clearance);
- 4. Illegal modification of vessel (inc. marked down, changing call sign, machines);
- 5. Using foreign captain and seamen;
- 6. Deactivation of Vessel's Transmitter (VMS and AIS);
- 7. Illegal transshipment at sea;
- 8. Forgery of logbook record;
- 9. Absence of health certificate and export declaration;
- 10. Violation of fishing ground;
- 11. Using prohibited fishing gear;
- 12. Non-compliance in owning/partnering with a fish processing unit; and
- 13. Unlawful landing of catches.

(IOM, 2016, p. 18)

It is cautious to insist on no mutual correlation between the size of the island and the amount of IUU fishing. Thus, monitoring, control and surveillance should be asserted around the maritime zone in its entirety without overlooking smaller islands. Port system, then, should be taken into account, because port is the official gateway for ships to come and go. In Indonesia, a hierarchical port system is built over approximately 1,700 ports in which 111 main commercial ports are under the authority of four BUMNs (*Badan Usaha Milik Negara* or Indonesia State-Owned Entities), namely *Perum Pelabuhan Indonesia* (Pelindo) I, II, III and IV (Ray, 2008 as cited in Herdiawan, 2016).

Table 5. Main Ports under the Authority of Pelindo I, II, III and IV.

Perum pelabuhan	Scope (province)	Ports controlled
Pelindo I	Aceh, North Sumatera, Riau	Belawan, Pekanbaru, Dumai, Tanjung Pinang, Lhokseumawe
Pelindo II	West Sumatera, Jambi, South Sumatera, Bengkulu, Lampung, Jakarta	Tanjung Priok, Panjang, Palembang, Teluk Bayur, Pontianak, Cirebon, Jambi, Bengkulu, Banten, Sunda Kelapa, Pangkal Balam, Tanjung Pandan
Pelindo III	Central Kalimantan, South Kalimantan, West Nusa Tenggara, East Nusa Tenggara (East Timor in the past)	Tanjung Perak, Tanjung Emas, Banjarmasin, Benoa, Tenau/Kupang
Pelindo IV	Sulawesi (South, Southeast, Central and North), Maluku and Irian Jaya	Makassar, Balikpapan, Samarinda, Bitung, Ambon, Sorong, Biak, Jayapura

(Ray, 2008 as cited in Herdiawan, 2016, p. 98)

As demonstrated in the table, Ambon port is controlled under the authority of Pelindo IV in the province of Maluku. On the subject of Ambon port, Yusriza & Desmonda (2015) with the support of International Organization for Migration Indonesia conducts a report of interviews with trafficking-in-person victims in relation to IUU fishing in Ambon Fishery Port or *Pelabuhan Perikanan Nusantara* (PPN). As brief samples, the report clearly documents two types of fisheries crime (IUU fishing) which are (5) using foreign captain and seamen; and (7) illegal transshipment at sea, while other types of fisheries crime are not necessarily claimed by respondents due to their partial awareness as victims of trafficking-in-person. In the second section of Respondent Profile (Yusriza & Desmonda, 2015, p. 1), all of the 285 respondents were male and claimed to be Myanmar citizens albeit one victim was born in Thailand. Additionally, in the sixth section of Gross Tonnage, Docking, Unloading and Transfer of Goods (Yusriza & Desmonda, 2015, p. 10), 58% of victims admit that the caught fish or other marine products have ever been transhipped to other boats in the middle of the sea or at the port. To specify whether in the sea or at the port, Yusriza & Desmonda (2015, p. 10) shows that 78% of victims opt out at the sea whereas 13% of victims opt out at the port.

In spite of this report, another case of IUU fishing is Silver Sea 2 arrested by the Indonesian Navy occurring in 2015 with its designated port in Ambon and its location of capture in Sabang (Northern Aceh). Types of fisheries crime (IUU fishing) revolve around (3) fishing without licences/appropriate documents (sailing without port and seaworthiness clearance); (5) using foreign captain and seamen; (6) deactivation of Vessel's Transmitter (VMS and AIS); and (7) illegal transshipment at sea as these all are in line with the report by the Head of Task Force on the Prevention, Deterrence and Elimination of IUU Fishing (KKP, 2015) that the alleged violations are transport fish without permit (carrier permit already expired), conduct illegal transhipment in Arafura Sea, deactivation of AIS and VMS and employ illegitimate crews.

There are several governmental bodies with reference to combat IUU fishing in Indonesia, such as the ministry, the navy and the police of the Republic of Indonesia. To display a statistical estimation of "SINK THE VESSELS," 38 vessels are sunk solely by the ministry between 2007-2014, 59 vessels between 2014-2015 and 37 vessels on 18 August 2015 (ibid). By the same token in The Symposium on FishCRIME on 12-13 October 2015, Cape Town, South Africa, KKP or Ministry of Marine Affairs and Fisheries (ibid) highlights "Sovereignty, Sustainability and Prosperity" in the sense of good governance in maritime power. Vessels primarily aimed by the Ministry of Marine Affairs and Fisheries are illegal ex-foreign vessels attributed with super intensive fishing gears and having a tendency of unsustainability, such as purse seine and trawl (Pudjiastuti, 2017 in Kurnia, 2017, p. xvii). As if capture fish is not enough to meet their demand, the report (Yusriza & Desmonda, 2015, p. 15) mentioned earlier states that the trawls and the seines frequently used by the boats have a characteristic to collect any other marine biodiversity like corals.

### Linkages Between IUU and SDG 14

Asian Institute of Research

By virtue of the transnational nature of maritime security, IUU fishing can be addressed as a global concern. IUU fishing incorporates global fish stock (Schmidt, n. d.) which is, then, relevant to address in an international forum, such as UN SDG. Both IUU fishing enforcement and UN SDG agenda have their own highlight. IUU fishing enforcement in Indonesia highlights "Sovereignty, Sustainability and Prosperity" for governmental bodies to sink the vessels (KKP, 2015). In combating IUU fishing in Indonesia, "sovereignty" plays a role regarding borders and territories, "sustainability" regarding fishing activity and environment and "prosperity" regarding economic value of fishing activity and environment. On the other hand, Life Below Water agenda in general highlights "People, Planet and Prosperity" for people to enjoy out of its goals (UN, n.d., p. 3). In strengthening universal peace in larger freedom, "people" plays a role regarding poverty and hunger eradication as well as human potential, "planet" regarding protection for the needs of the present and future generations and "prosperity" regarding life enjoyment and progress with nature (ibid). Both deliberately promote prosperity in different ways. Despite that "prosperity" in IUU fishing enforcement in Indonesia is not explained in depth, the UN explains "prosperity" that "we (UN) are determined to ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature" (ibid).

IUU fishing economically disadvantages Indonesia due to the value of fisheries stock and also the value of marine environment the state is losing. Such activity discouragingly impacts an international agenda, such as UN SDG 14 Life Below Water, Indonesia has been trying to achieve. Again, IUU fishing enforcement surrounding Life Below Water agenda is vital if "prosperity" maintains to be the highlight of both. To conserve and sustainably use the oceans, seas and marine resources for sustainable development, Indonesia so far implements "marine spatial planning, sustainable management of the Fisheries Management Area (WPP), total allowable catch within biological sustainable level, combating IUU Fishing, and improvement of the Marine Protected Areas (MPAs) as well as the improvement of small-scale fisheries financial access" (National Development Planning/Head of National Development Planning Agency, 2017, p. 72). In the legal point of view, "Act No. 31/2004 Act and Act No. 45/2009 regarding fisheries" is the foundation to combat IUU fishing (ibid, p. 74).

Along the way, local wisdom, described as "community rules/traditions inherited from generation to generation recognized as customary law that applied to the coastal community," contributes to the management of marine and fisheries resources in Indonesia, such as Sasi in Maluku (National Development Planning/Head of National Development Planning Agency, 2017, p. 76). Local wisdom itself is precisely analysed to sustain Indonesia's food sovereignty, that Sasi is "a system to forbid harvesting or making use of nature (on land and at sea) for natural resources during certain periods of time" (Herdiawan, 2016, p. 161). Such local wisdom surely helps in combating IUU fishing, because the customary law could be regarded, for instance, as an action to combat unregulated fishing around Maluku, including Ambon.

Another highlight of IUU fishing enforcement is "sovereignty" that can be linked to "people" UN SDGs in general highlight. Borders and territories play a huge role in operating fishing activity, because nationality of crews and vessels determines the maritime zone they can pass through. Sovereignty itself, in a broader sense, engage states and their citizens within. So, foreign crews and vessels proceeding any fishing activity fall into IUU fishing, again, discouragingly impacts such UN SDG 14 Life Below Water that IUU fishing violates sovereignty, food sovereignty to be exact. UN (n.d., p. 3) explains "people" that "we (UN) are determined to end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment."

The last highlight of IUU fishing enforcement is "sustainability" that can be linked to "planet" UN SDGs in general highlight. Sustainability of fishing activity in the environment of each state also plays a huge role. In spite of the possibility that this could be understood in the sense of "sovereignty" and "people," yet, UN aims to protect the Earth as whole by embracing as many states as possible. UN (ibid) explains that "we (UN) are determined to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations." IUU fishing, again, discouragingly impacts UN SDG 14 Life Below Water that IUU fishing utilises unsustainable fishing activity with seines and trawls damaging coral reefs that are beneficial for the sustainability of marine environment that has high non-market value. Besides, IUU fishing also neglects the biological clock of fisheries production.

Now it can be said that three pairs of linked highlights respectively generate economic value loss, food sovereignty violation and unsustainable fishing activity to be examined as these three things are the discouraging impacts of IUU fishing toward UN SDG 14 Life Below Water. Approximately, there are "lower and upper estimates of the total value of current illegal and unreported fishing losses worldwide are between \$10 billion and \$23 billion annually, representing between 11 and 26 million tonnes" based on the review of the situation in 54 countries and on the high seas (Agnew, Pearce, Pramod, Peatman, Watson, Beddington and Pitcher, 2009). However, that only applies to the situation almost a decade ago. It should be kept in mind again that, quite recently, Indonesia loses trillions of rupiahs due to IUU fishing (IOM, 2015 as cited in Chapsos & Malcolm, 2016). As for food sovereignty violation, "SINK THE VESSELS" continues to expand the number of vessels sunk by Indonesia's governmental bodies since the report presented in Cape Town, Africa in 2015. To date, there are "317 boats sunk (since 2014) and another 191 (are) waiting" as told by the Minister of Marine Affairs and Fisheries, Susi Pudjiastuti (Tani, 2017). Lastly, unsustainable fishing activity urges Indonesia to enhance the damaged coral reefs caused by unsustainable vessels and tools. Besides being part of the Coral Triangle Initiative with the other countries, an international board also participates in saving coral reefs in Indonesia, such as Coral Reef Information and Training Center (CRITC) through a program called Coral Reef Rehabilitation and Management Program (COREMAP) collaborating with the Ministry of Marine Affairs and Fisheries. Statistically, Indonesian Institute of Sciences (LIPI) notes that "one third of coral reefs in Indonesia are damaged, although they are recovering better in the past ten years" (Herdiawan, 2016, p. 54).

#### Conclusion

What occurs on land reflects what occurs at sea. As a matter of fact, most people live on land. IUU fishing can be said as a human activity striving to satisfy food demand for people without paying attention to propriety at all. IUU fishing, of course, worsens the former situation, by its extensive unsustainability over the course of its activity regarding the livelihood of the marine environment.

Engaging more than a hundred countries, the United Nation (UN) launched the 17 Sustainable Development Goals (SDGs) in which Goal 14 is Life Below Water towards a better use of the marine environment. IUU fishing discouragingly impacts the UN SDG 14 as IUU fishing, as briefly stated earlier, is nowhere near sustainable. Thus, IUU fishing enforcement is necessary to bring out the best of the goal aimed. Indonesia, as one of those countries, applies several UN SDGs, including the UN SDG 14 Life Below Water, to its national framework as the goal aligns with its own national planning under the Ministry of National Development Planning or National Development Planning Agency of the Republic of Indonesia. Moreover, Indonesia even

mentions IUU fishing to combat in its voluntary national review of the UN SDGs applied in the section of the UN SDG 14 Life Below Water. This proves that the capacity of national enforcement in carrying out international agenda is already working on progress, that national enforcement of IUU fishing is connected to international agenda of Life Below Water on their shared highlights, "prosperity" in particular.

Nevertheless, IUU fishing enforcement in Indonesia is a case-by-case problem in which there is no 'one size fits all' solution. Even if there is, it needs to be enforced repetitively and strictly with the hope that the gap of uniqueness between each case of IUU fishing is not too wide to solve. It is true that national enforcement of IUU fishing towards international agenda of the UN SDG 14 Life Below Water is a long process, yet, situation will only be worse if countries give up on that. At least, as long as there is still something to do about it, no matter how little the effort is, it counts as some sort of integrity and responsibility of countries in their own realm. Indonesia proves its integrity and responsibility as a country in their own realm, their marine environment to be exact.

As the largest archipelagic state, Indonesia could be the country to set the tone regarding such national enforcement towards international agenda for other archipelagic states. With the information sharing in a conference in Africa, Indonesia is open to the subject. Also, Indonesia could be the source of learning for other countries in tackling similar problem related to marine activity in marine environment. As uttered, "if we (Indonesians) cannot utilise military power like the US, North Korea and China nor economic power like South Korea and Japan to put others in tremble, our country still has marine potential as a bargaining position" with the "SINK THE VESSELS" (Herdiawan, 2016, p. 152).

To conclude, SDG 14 proves to be effective as an international agenda to tackle the problem of IUU fishing. Additionally, national enforcement towards such international agenda in Indonesia is sufficient so far that even the public is aware of a maritime security threat, IUU fishing, and supports the governmental bodies to tackle more cases. Even though, recently, the maintenance of "SINK THE VESSELS" is questioned for the future, Jokowi implied that the past three years of the policy applied was valid and that the ministry did a good job (Ihsanuddin, 2018). It is also recommended for other researchers to explore other parts of Indonesia besides Ambon with regards to Life Below Water and IUU fishing.

#### References

- Agnew, David J., John Pearce, Ganapathiraju Pramod, Tom Peatman, Reg Watson, John R. Beddington and Tony J. Pitcher. (2009). *Estimating the Worldwide Extent of Illegal Fishing*. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2646833/
- Dalby, Gustavo Sosa-Nunez and Ed Atkins. (2016). *Environment and International Politics: Linking Humanity and Nature* in *Environment, Climate Change and International Relations*. Retrieved from http://www.e-ir.info/wp-content/uploads/2016/05/Environment-Climate-Change-and-International-Relations-E-IR.pdf
- Geospatial Information Agency of Indonesia. (2017). *Identification of Islands and Standardization of Their Names*. Retrieved from https://unstats.un.org/unsd/geoinfo/UNGEGN/docs/11th-uncsgn-docs/E\_Conf.105\_115\_CRP.115\_Agenda%209a%20Identification%20of%20Islands%20and%20Standardization%20of%20Their%20Names\_BIG\_Indonesia.pdf
- Herdiawan, Didit. (2016). Kedaulatan Pangan Maritim: Dinamika & Problematika. Jakarta: Lembaga Ketahanan Nasional RI.
- Husein, Yunus. (2015). Strategy on Combating IUU Fishing and Post Moratorium Policies Plan. Retrieved from http://www.fishcrime.info/assets/Uploads/Yunus-Husein-Indonesian-Approach-To-Tackling-Fisheries-Crime.pdf
- IHO. (n.d.). *IHO Hydrography Capacity Building Programme for Coastal States*. Retrieved from https://oceanconference.un.org/commitments/?id=15447
- Ihsanuddin. (2018). *Jokowi Tanggapi Silang Pendapat JK, Luhut, dan Susi soal Penenggelaman Kapal*. Retreived from http://nasional.kompas.com/read/2018/01/10/18534331/jokowi-tanggapi-silang-pendapat-jk-luhut-dan-susi-soal-penenggelaman-kapal

- Indonesian National Logistics Team. (2012) The Challenge of Implementation of Presidential Regulation No.26/2012 on the Blueprint of Development of National Logistics System (Use of ICT As A Driver Toward: "Locally Integrated, Globally Connected for National Competitiveness and Social Welfare"). Retrieved from https://www.slideshare.net/muwasiq/101212-sislognas-ict-tools-to-reduce-costtime-and-uncertainty
- IOM. (2016). Report on Human Trafficking, Forced Labour and Fisheries Crime in the Indonesian Fishing Industry. n.d. IOM.
- Jackson, Robert and Georg Sorensen. (2006). Introduction to International Theories and Approaches. Retrieved from https://e-
- edu.nbu.bg/pluginfile.php/147644/mod\_resource/content/0/jackson\_sorensen\_Intro\_in\_IR\_chap06.pdf Kurnia, Laksamana Muda TNI Aan, S.Sos. (2017). *Between Threats & Opportunities: Facing Global Maritime Fulcrum*. Jakarta: PetroEnergy.
- National Development Planning/Head of National Development Planning Agency of the Republic of Indonesia. (2017). *Indonesia's SDGs Voluntary National Review*. Retrieved from https://sustainabledevelopment.un.org/content/documents/25469INDONESIA\_VNR\_PPT.pdf
- OECD. (2016). The Ocean Economy in 2030. Paris: OECD Publishing.
- Park, Dr. Kwang Seo and Kildow, Dr. Judith T. (2014). *Rebuilding the Classification System of the Ocean Economy*. n.d. Digital Commons.
- Republic of Indonesia. (2017). *Voluntary National Review (VNR) "Eradicating Poverty and Promoting Prosperity in A Changing World*. Retrieved from https://sustainabledevelopment.un.org/content/documents/15705Indonesia.pdf
- Ritonga, Rajab. (2016). Kesadaran Baru Maritim: Biografi Laksamana TNI Dr. Marsetio. Jakarta: PT Gramedia Pustaka Utama.
- Schmidt, Carl-Christian. (n.d.). *Addressing Illegal, Unreported and Unregulated (IUU) Fishing*. Retrieved from http://www.oecd.org/greengrowth/fisheries/34029751.pdf
- Stachowiak, Sarah. (2013). Pathways for Change: 10 Theories to Inform Advocacy and Policy Change Efforts. Retrieved from http://www.pointk.org/resources/files/Pathways for Change.pdf
- Tani, Shotaro. (2017). *Indonesia to continue blowing up illegal fishing vessels*. Nikkei. Retrieved from http://www.google.co.id/amp/s/asia.nikkei.com/amp/Politics-Economy/International-Relations/Indonesia-to-continue-blowing-up-illegal-fishing-vessels
- UNDP Indonesia. (n.d). *Sustainable Development Goals*. Retrieved from http://www.id.undp.org/content/indonesia/en/home/sustainable-development-goals.html
- UN. (n.d.). *Life Below Water: Why It Matters*. Retrieved from http://www.un.org/sustainabledevelopment/wp-content/uploads/2016/08/14 Why-it-Matters Goal-14 Life-Below-Water 3p.pdf
- UN. (n.d.). Sustainable Development Goals. Retrieved from http://www.un.org/sustainabledevelopment/sustainable-development-goals/
- UN. (n.d.). *Transforming Our World: The 2030 Agenda for Sustainable Development*. Retrieved from https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%2 0Development%20web.pdf
- Yusgiantoro, Purnomo. (2014). Ekonomi Pertahanan: Teori & Praktik. Jakarta: PT Gramedia Pustaka Utama.
- Yusriza, Benni and Astrid Desmonda. (2015). Ambon's Trafficking-In-Person Case in Relation to Illegal, Unreported and Undocumented (IUU) Fishing Report. Retrieved from https://indonesia.iom.int/sites/default/files/IUU%20Generated%20Data%20Report%20-%20Final%20%28Transhipment%20Process%29.pdf
- Zainal, Zaidah. (2007). *Case study as a research method*. Retrieved from http://psyking.net/htmlobj-3837/case study as a research method.pdf