As an archipelago country, most of Indonesia’s country are located on the sea. Due to this geographic position, illegal fishing becomes an important issue that threatens the country’s maritime security. To solve this issue, the government of Indonesia has implemented ship sinking policy since 2014. This research aims to explore the social and economic consequences of ship sinking policy at the local level. A single case study was used to identify and explore the social and economic consequences of the policy in Sebatik Island, Nunukan district, North Kalimantan. The case of Sebatik was unique as the island is located at the border Indonesia and Malaysia and its historical conflict between two countries and its communities. Our findings highlighted the economic benefits of the policy as production value of fish captured by Sebatik fisherman significantly increased following the policy. We also found strengthening bargaining position of fish market on the island following the policy.

Keywords: Ship Sinking Policy, Maritime Security, Maritime Border Zone

Sebagai negara kepulauan yang sebagian besar wilayah perbatasannya berada di laut, illegal fishing merupakan salah satu isu penting yang dihadapi Indonesia. Untuk mengatasi isu tersebut, sejak tahun 2014 Pemerintah Indonesia telah
mengimplementasikan kebijakan penenggelaman kapal. Penelitian ini bertujuan untuk menganalisis bagaimana konsekuensi sosial ekonomi dari “kebijakan penenggelaman kapal”, khususnya terhadap masyarakat lokal. Studi kasus tunggal digunakan untuk mengidentifikasi dan menganalisis konsekuensi sosial ekonomi dari kebijakan penenggelaman kapal di Sebatik, Kabupaten Nunukan, Provinsi Kalimantan Utara. Kasus di Sebatik dianggap unik, karena pulau ini terletak di perbatasan Indonesia dan Malaysia serta memiliki konflik historis, baik antar negara secara umum, maupun masyarakatnya secara khusus. Dari hasil temuan diketahui bahwa manfaat ekonomi dari kebijakan penenggelaman kapal yang dirasakan oleh masyarakat adalah meningkatnya nilai produksi ikan yang ditangkap oleh nelayan Sebatik secara signifikan. Konsekuensi lain yang muncul dari kebijakan penenggelaman kapal adalah adanya penguatan posisi tawar pasar ikan Pulau Sebatik.

Kata Kunci: Kebijakan Penenggelaman Kapal, Kemanan Laut, Zona Perbatasan Laut

A. INTRODUCTION

As an archipelagic country that 99.7 percent of boundaries located on the sea, Indonesia has the potential of waters which becomes a major attraction for foreign parties to enter Indonesia illegally. This is undoubtedly a serious problem related to maritime security, especially in the border region, due to the maritime border zone is an important part of national security (Liss, 2013:146).

Some of the threats to security that are faced in Indonesia's border region have been described in previous studies, one of which is by Iis Gindarsah & Priamarizki (2015:5). They pointed out that the threat to Indonesia maritime security on the border could be indicated by three things, two of which are illegal vessels caught in Indonesia, the average number increases every year, as well as piracy attacks in Indonesia waters and sea borders that are higher in number compared to some other water regions such as Malaca Straits and the South China Sea. Even according to Susi Pudjiastuti, Minister of Marine Affairs and Fisheries Indonesia, based on the 2003 to 2013 census, fish theft in the border region is very high (Kompas, 2017). This condition is apparently a big challenge for Indonesia in maintaining the maritime border zone, which is the entrance to the threat to maritime security.

Although the threat to maritime security has been faced by Indonesia for a long time, however, it is only recently that the Government of Indonesia has given attention to it (BAPPENAS, 2016:8). Therefore, the Ministry of Marine Affairs and Fisheries as the leading sector is trying to arrange some policies as a breakthrough, one of them is by implementing ship sinking policy which is expected as a solution to reduce the threat to maritime security in Indonesia maritime border zone.

Ship sinking policy itself is actually not a new policy in Indonesia, because this policy should be contained in Law No. 45 of 2009 on Fisheries. Nevertheless, since 2014, the Ministry of Marine Affairs and Fisheries under the leadership of Minister Susi Pudjiastuti has been trying to be more assertive and consistently implement the policy. The beginning of the assertiveness from Indonesian government in the eradication of illegal fishing comes from some data obtained from the census in period 2003-2013, as described by Minister Susi Pudjiastuti (Kompas, 2017). First, the number of fishermen households declined from 1.6 million families to 800,000 families; second, there are 115 national fish processing exporters closed; and third, the value of Indonesian fish exports only reached number three in ASEAN, while Indonesia’s has the largest marine area in ASEAN region. According to the Ministry of Maritime Affairs and Fisheries, in general the impacts or
losses caused by illegal fishing felt by Indonesia, can be categorized into three groups, namely economic, social and ecological losses (Kementrian Kelautan dan Perikanan, 2015:134). This is in line with what was conveyed by Oanta (2014:149) that the practice of illegal fishing that occurs in many countries greatly affects the welfare of the wider community. One of these impacts can be seen from the economic consequences felt by people whose lives depend on marine resources.

Based on the aforementioned background, this study aims to explore the social and economic consequences of “Ship Shrinking Policy” in Sebatik Island. The case of Sebatik Island was unique as the island is one of the outermost islands of Indonesia which borders directly with Malaysia. The leading sector of the economy is fishery that relies on the geographical location of Sebatik Island that is located between the Sulawesi Sea and Nunukan Strait. Therefore it is becoming interesting to see the consequences of the ship sinking policy implementation which is a national policy on maritime security in Sebatik Island which is a maritime border zone.

B. RESEARCH METHOD

This research was focused to explore the socio-economic consequences of the ship sinking policy in Sebatik Island. To explore that phenomenon, a case study was used. Yin (2014:1) defines case study is a more appropriate approach used in the study which had the main question “how and why”. Thus, the main question address in this study is how is the implementation of ship sinking policy benefits social and economic welfare for societies in Sebatik Island? And why? In addition, this research strategy that will use in this study is a single case (holistic) design.

Primary data was collected through in-depth interviews with the key informants which were the fishermen, the head of Sebatik Port, and the officials or managers in the government agencies of Nunukan district who have a direct link or relation in the fishery. Furthermore, secondary data was collected through studies in literature, including the scientific past studies and documents that concerned with the study. The other source of the secondary data was the activities of program planning documents that stored in the Strategic Plan (Renstra) and also the annual report of agency performance (LKJIP) of Ministry of Fisheries and Marine Affairs. Primary and secondary data that had been collected were analyzed by developing a case description. This analyzing strategy is expected to assist researchers in answering research questions (Yin, 2014:144).

C. CONCEPTUAL FRAMEWORK

Maritime security is a broad concept that involves many actors, so there has not been agreement from experts on the definition (Bueger, 2015:159; Flynn, 2016:10). On the other hand, maritime security may be interpreted as one of the branches of the security concept. However, when exploring it, maritime security will remain a very complex issue because it deals with many aspects (Rahman, 2009:32).

However, Rahman (2009:29) attempted to compose a concept of maritime security which consists of five categories. The five categories according to him depart from the perception of maritime security in the form of non-traditional security. From his analysis, he states that the response of a country towards the necessity of maritime security contained in policy usually holds one or more from the five categories in question.

In line with the opinion from other scholars, Theilen (2013:2) also said that maritime security is a comprehensive concept because it involves many parties and issues, ranging from local, international, public and private. He also argues that "maritime security" is a
different concept from "marine safety”, because maritime security encompasses prevention and handling efforts, which are intended to uphold law and defense efforts by the military, so the main actor is the government. While marine safety is prevention and handling efforts that aim to reduce and limit the effects of damage or harm to the maritime environment so that the marine safety is more directed for ships security, passengers, cargo, and navigation.

According to Theilen (2013:3), even though the government is the main actor in maritime security but the authority to act on behalf of state sovereignty can depart from many elements. He explains that the maritime security elements are: international and national peace and security; sovereignty (territorial integrity and political independence); security of sea lines of communication; security protection from crimes at sea; resource security; access to resources at sea and to the seabed; environmental protection; and security of all seafarers and fisherman.

Maritime security is an essential part of national security for countries whose geographical conditions include long coastlines and maritime boundaries directly adjacent to other countries (Liss, 2013:147). For the countries with the mentioned geographical location, most of its economic activities are highly dependent on the sea, so the threat to maritime security can have a major impact on the country’s economy. Increasing threats to maritime security, one of which is due to the decline of fish stocks in the world today (Nyman, 2013:9). So it is not surprising that illegal fishing practices are a major issue in maritime security, especially in the border area, the number is increasing (Song, Scholtens, Stephen, Bavinck, & Chuenpagdee, 2017:13).

Furthermore, Chapsos & Malcolm (2017:179) asserted that efforts to overcome illegal fishing had become a national and international concern next to the issue of inter-state naval operations as well as current power politics. This is due to the existence of illegal fishing brings different impacts on the human population and undermines the economy of fishery-dependent communities, that pose a threat to human security which is one of the maritime security dimensions (Buèger, 2015:161; Rosello, 2016:48). Schmidt (2005:481) also confirmed that illegal fishing is becoming a global issue that should be of concern for policymakers. He agreed with another scholar that the practice of illegal fishing became a concern for all Governments in the world due to they recognized the potential negative impact resulting from illegal fishing. Even in some countries, the perceived impact has been very severe, where the number of fish stock is experiencing a very drastic reduction. Schmidt also explained that the unreported fishing that provides impact not directly perceived, but gives a significant influence on the sustainability of the fish stock prediction. Clarifying the scope of "illegal" practices in fisheries, Rosello (2016:41) attempts to refer to the International Plan of Action to Prevent, Determined and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA) in outlining the scope of illegal better known as IUU (Illegal, Unreported and Unregulated). The IPOA-IUU itself is the first international voluntary instrument formulated with the aim of providing comprehensive and effective measures for a country as well as a regional fisheries management organization in handling IUU fishing (Palma, 2009:71).

Agrees that illegal fishing which is part of IUU fishing becomes one of the major problems faced by international fisheries, Oanta (2014:155) admitted that environmental problems, economic losses, and reduced ability of people to meet their own food needs are some of the losses that arise from illegal fishing. He also highlights that many illegal fishing practices that occur nowadays have links with local organized criminal networks that are local international, causing damage to the social order, expand the practice of corruption and increase human rights violations. This underlies Oanta to refer to illegal
fishing as a category of crime that becomes a precursor to the continuity of maritime security.

In line with the above opinion, the Ministry of Marine Affairs and Fisheries (Kementrian Kelautan dan Perikanan, 2015:134) also mentioned that the impacts or losses caused by illegal fishing for a country that has a maritime border zone like Indonesia are very great. This can be explained in three aspects. First, economic impacts/losses. There are some numbers that are deemed to be the economic loss figures resulting from illegal fishing practices, depending on the approach used in calculating those losses. Second, social impacts include the threat of sustainable livelihoods of small-scale fishermen, as they are unable to compete with foreign fishing vessels with larger scale; the decline of catches per unit of fisherman's business due to damage to fish resources and their habitat; the decline of manpower in the national fisheries sector, including the business of collecting and retaining fish. Third, impacts on ecology/environment, such as damage to fish resources and their habitat due to the use of exploitative and non-environmentally friendly fishing gear; overfishing and overcapacity in number of WPP-NRI. Therefore, the enforcement of sovereignty and law enforcement at sea for a maritime country like Indonesia is very important, as an effort to realize the welfare of the community, especially for fishermen who depend on marine resources (Kartika, 2018:158).

Departing from the concept of maritime security and illegal fishing practices that have been described above, in this study, maritime security is interpreted as the government's efforts to eradicate the practice of illegal fishing. The illegal fishing practice itself is interpreted as a major threat to the security of Indonesian fishermen doing their activities in the sea, the state of the fisheries sector as well as overfishing in the Indonesian fishery.

D. RESULT AND DISCUSSION

Ship Sinking Policy in Indonesia

To see how maritime security in Indonesia, we can refer to the marine policy initiated by the President Jokowi Government, which aims to make Indonesia as "World Maritime Axis". From the policy, it is discerned that Jokowi Government gives importance to the development of the marine sector in Indonesia within the period of 2015-2019. The scope of this policy includes: building an Indonesian maritime culture; safeguarding marine and its resources, through the development of the fishing industry. It is applied by placing fishermen as the main pillar so that it can achieve the sovereignty of seafood; setting a priority to the development of maritime infrastructure and connectivity by establishing seafloor, deep seaport, logistic, maritime shipping and industries; strengthening maritime diplomacy, cooperation, and; eliminating source of marine conflict such as fish theft, sovereignty offenses, territorial disputes, piracy and marine pollution; as well as building a maritime defense force to safeguard maritime sovereignty and wealth as well as a form of responsibility in safeguarding the shipping safety and maritime security.

To provide direction to the implementation of the above policy the Government of Indonesia has formed an action plan outlined in Presidential Regulation No. 16 of 2017 on Indonesian Marine Policy. In this regulation, the action plan is divided into five priority clusters: maritime boundary, space, and diplomacy; maritime industry and connectivity; natural resources and marine services industry as well as marine environment management; defense and marine security as well as maritime culture.
In the cluster of defense and marine security, one of the priority activities is handling illegal fishing, which is included unreported and unregulated. The illegal fishing practices that occur in Indonesian waters by Indonesian fishing vessels (KII) and foreign Fishing Vessels (KIA) often include: unlicensed fishing; fishing by using false permits; banned fishing equipment; banned fish species, or unlawful; counterfeiting of catch results or not reported correctly; bringing direct catches to other countries; and violate the provisions on the use of fishing gear / fishing aids (Kementerian Kelautan dan Perikanan, 2017:9). Illegal fishing practices that mention above causes Indonesia suffered a loss of 1.6 million tons of fish or equivalent to Rp 300 trillion every year (Nurdin, Ikaningtyas, & Kurniaty, 2018:2). Therefore, illegal fishing is an issue that poses a major threat to maritime security, as its handling is complex and the impact it generates on a regional and global scale. So, supervision and law enforcement against illegal fishing actors become priority activities in the scope of supervision and utilization of marine resources in Indonesia.

The earnestness and commitment of the Government of Indonesia against illegal fishing are translated by the Ministry of Marine Affairs and Fisheries into several concrete actions, one of which is the provision of firm action against fishing boats proven to conduct illegal fishing activities or better known as the ship sinking policy. Ship sinking policy is actually not a new policy, because this policy is actually set in Law No. 45 of 2009 on Fisheries. Article 69 paragraph 4 clearly states that in carrying out the supervisory and law enforcement functions in the field of fisheries management in the territory of the Republic of Indonesia, investigators and/or inspector of the extension may take special action in the form of burning and/or drowning of foreign-flagged fishing vessels based on the initial evidence enough. This provision indicates that such particular measures cannot be arbitrary, but can only be done if the fishery investigator and/or supervisor have substantial evidence.

Although the ship sinking policy in Indonesia has been set since nine years ago, but the echo execution was just felt the last few years. In her interview, Minister Susi Pudjiastuti admitted that the process of drowning illegal fishing vessels, especially foreign ships, is done “sensational” (The Jakarta Post, 2016). One example is the sinking of 60 foreign vessels conducted on Independence Day of Indonesia where many mass media cover it. This is done to provide a deterrent effect as well as a strong message to foreign countries and their fleets that Indonesia is currently intensively waging war against illegal fishing activities (The Jakarta Post, 2016).

The beginning of the assertiveness from Indonesian government in the eradication of illegal fishing comes from some data obtained from the census in period 2003-2013, as described by Minister Susi Pudjiastuti. First, the number of fishermen households declined from 1.6 million families to 800,000 families; second, there are 115 national fish processing exporters closed; and third, the value of Indonesian fish exports only reached number three in ASEAN, while Indonesia’s has the largest marine area in ASEAN region (Kompas, 2017).

Furthermore, according to Nasirin & Hermawan (2017:17), the current implementation of the ship sinking policy is considered more effective than before. That matter is due to several reasons. Firstly, there is support for assurance of legislation, the presidential decree and the provisions of law enforcement agencies that legitimize the implementation of ship sinking policies. Secondly, there is an instructional pattern and coordination of sinking of the perpetrator ship according to IUU Fishing, making it easier for policy implementation. The ship’s sinking policy is carried out with an instructional
pattern from the President to the Ministry of Marine Affairs and Fisheries and the Institute of Justice to the Ministry of Marine Affairs and Fisheries. In addition, the implementation of the ship sinking policy also coordinates with other related institutions such as the Ministry of Politics; Law and Security; Ministry of Foreign Affairs; embassies of other countries in Indonesia; Navy and so on. Thirdly, the implementation of IUU Fishing sinking policy is implemented with top management commitment, so that the implementation of the policy has character, progressive, consistent, assertive and sustainable. Strong commitment has driven the realization of real policies and ultimately yielded clear results. Although the ship's sinking policy has been heavily criticized from domestic and overseas, the ship's sinking action is still in place. Fourth, funding support for the eradication of IUU Fishing facilitates the implementation of the ship sinking policy. Fifth is the support of the Task Force 115 bureaucratic instrument or known as Task Force 115. Task Force 115 has a duty to conduct illegal fishing eradication.

During the period 2014 to 2016 (Kementrian Kelautan dan Perikanan, 2016:10), Task Force 115 had caught 489 illegal fishing vessels, 236 of them were drowned, and mostly (97 percent) were foreign vessels. For three years, the number of illegal fishing vessels drowned also increased. Even in 2015, the number of illegal fishing vessels drowned increased dramatically from the previous year (table 1). As for the data up to the end of November 2017, it is known that there were 363 illegal foreign vessels drowned and the countries whose ships are the most drowned are from Vietnam, followed by the Philippines and Malaysia (Tempo, 2019). Of the number of cases of illegal fishing handled, The Task Force 115 found that illegal fishing practices appearing in Indonesian waters today have been widely penetrated in other crimes such as money laundering, illegal oil, and human rights violations related to labor conditions that serve on fishing vessels (Morris & Persi Paoli, 2018:25).

| Year | Caught Indonesia | Caught Foreign | Total | Drowned Indonesia | Drowned Foreign | Total |
|------|------------------|---------------|-------|-------------------|----------------|-------|
| 2012 | 42               | 70            | 112   | NA                | NA             | NA    |
| 2013 | 24               | 44            | 68    | NA                | NA             | NA    |
| 2014 | 22               | 16            | 38    | -                 | 8              | 8     |
| 2015 | 48               | 60            | 108   | 4                 | 109            | 113   |
| 2016 | 23               | 140           | 163   | 3                 | 112            | 115   |
| Total| 159              | 330           | 489   | 7                 | 229            | 236   |

Source: (Kementerian Kelautan dan Perikanan, 2016:10)

The large number of illegal foreign vessels that have been drowned out by the Government of Indonesia through this ship sinking policy has spawned many protests and criticism from both home and abroad. From abroad, protests and criticism come from countries that feel the impact of the policy such as Vietnam, Philippine and China. They cast a protest through their embassies in Indonesia, and criticize that the ship sinking policy as a wrong policy, hostile and not diplomatic. Even they state that the government's decision is a serious concern for their country (Nasirin & Hermawan, 2017:20).

Apart from abroad, criticism and protests also came from the internal Indonesian government itself. Indonesian Vice President Yusuf Kalla in his interview stated that "It is enough (to stop sinking the illegal fishing boats); now we need to purchase the fishing boats and ships. On the other hand, however, many ships are unused. We have informed
the Maritime Affairs and Fisheries Minister that we would need more ships as our export of fish has declined (Kompas, 2018). In the different time, Coordinating Minister for Maritime Affairs, Luhut Binsar Pandjaitan remarked that in 2018, there would no longer be the sinking of fishing boats because the government wants to focus on the efforts to increase fish production (Tempo, 2018b). He also stated that it is time for Minister Susi to focus on other things outside of sinking ships such as pushing for investments in the fishery sector (Tempo, 2018).

Despite many criticisms and protests against the implementation of the ship sinking policy, the Ministry of Marine Affairs and Fisheries stated that the large number of sinking vessels that have been proven as illegal fishing had a tremendously positive impact, especially on maritime security. This is evident from the Marine Security Agency, where the number of foreign ships entering Indonesian waters decreased significantly by 80% (Kementerian Kelautan dan Perikanan, 2015:26). On the other hand, Ministry of Marine Affair and Fisheries also mentioned that in 2016 fish stock has increased 2.57 million tons in a year (Tempo, 2018a). The positive impact of the ship sinking policy implementation is also reflected from the data of fishery production and export value of Indonesian fishery. The realization of capture fishery production in 2016 reached 6.83 million tons or 103.82% of the target of 6.58 million tons, while the national fishery export production in general in the year 2016 increased by USD 4.17 million or 5.81% the previous year (Kementerian Kelautan dan Perikanan, 2016:38).

Departing from the description of the ship sinking policy above clearly sees that the policy as a decisive step by the Indonesian Government to impose sanctions on illegal fishing in Indonesian waters. Although there is a debate over the implementation of this policy, both from within and outside the country, but this policy also gives a message to the whole world that the Government of Indonesia is currently actually waging war against illegal fishing activities that pose a threat to maritime security, especially in the border area which is the entrance for illegal fishing actors.

**Overview of Sebatik Island**

Sebatik Island is one of the outer Islands located in the Nunukan district, North Kalimantan. Among the nineteen subdistricts in the Nunukan Regency, five of them are within Sebatik Island; namely Sebatik, North Sebatik, West Sebatik, Central Sebatik, and East Sebatik. The mentioned sub-districts in Sebatik Island are directly adjacent to the Malaysian border, with the exception of Central Sebatik. Based on its geographical position in the exclusive economic zone, Sebatik is one of the fishing grounds for marine waters, making it the largest producer of capture fisheries resources in Nunukan district. In 2015, 78 percent, or 3,308,15 tons, of capture fisheries in Nunukan district originated from Sebatik Island. The potential of fishery resources in Sebatik Island is related to the geographical location of it being situated in the Makassar Strait and Sulawesi Sea. In this case, the areas that have the most significant potential in capture fisheries of Sebatik Island are the Sebatik and East Sebatik sub-districts. The number of catches of Sebatik fishermen can be seen in Figure 1.
The capture fisheries’ potential in Sebatik Island has caused an increase in capture fisheries households (RTP) situated in Sebatik Island. By definition, RTP is the term used for households that conduct activities which involve the capture of fisheries and water plants product for the purpose of selling. Although the number of households of fishermen in Sebatik had no additions in 2014 compared with the previous year but counted from the year 2009 until 2016 with the average number of households of fishermen has increased by as much as 10 percent annually. The trend of the number of fishermen households can be seen in Figure 2.

Furthermore, the results that the majority of fishery production originated from Sebatik Island show that it has three primary target markets, which are the local Nunukan
district, the domestic market (Makassar, Surabaya, and Tarakan) as well as overseas (Tawau, Malaysia). In this case, the combination of both local and domestic markets is dominated by seaweed, while overseas the focus of the commodity only relies on the captured fisheries. This is due to the higher purchasing power of the people of Tawau towards catches by Sebatik fishermen rather than Nunukan’s, as well as cheaper operational costs to sell to the Tawau market rather than Nunukan. Therefore, with its geographical location being relatively close to the borders, the fishermen of Sebatik are very dependent on the Tawau market. Although the exact percentage of the Sebatik capture fisheries market distribution is not found, at least the absorption of the fisheries product market of Nunukan Regency can be used as the basis for the analysis. Figure 3 shows the percentage of fishery market absorption in Nunukan Regency.

![Figure 3. The Market Destination of Fisheries Product in Nunukan Regency](source: LAKIP of Nunukan Fisheries Agency, modified)

The Socio Economic Consequences of Ship Sinking Policy in Sebatik

According to the Ministry of Marine Affairs and Fisheries, the implementation of the ship sinking policy has brought positive impact to the fishery sector in Indonesia. It is not only has caused an increase in the stock of fish by 26 percent, but the production of caught fish on both land and sea also increased respectively by 35 percent and 12 percent in 2016 (Tempo, 2018). Based on these conditions, this paper analyzes the socio and economic consequences of the implementation of the ship sinking policy locally, especially in the maritime border zone, namely Sebatik.

In the social aspect, the indicators used in observing the consequences of the ship sinking policy are the number of fish-capture-household data and the number-of-catches data. As mentioned in the previous chapter, one of the backgrounds to enforce the eradication of illegal fishing in Indonesia through the ship sinking policy is the deterioration in the number of fishermen households by 50 percent within the last 10 years.

As a region that has becomes the most significant contributor to fishery products in Nunukan Regency, Sebatik has also become a region that has the largest number of fishermen households in Nunukan Regency. From the number of fishermen household data previously submitted, it is recognized that in an average year there is a rise of 10 percent, although in 2012 there was a decrease of one percent (Figure 3).
The absence of a striking rise in the number of fishing households—after 2014 indicates that the implementation of the ship sinking policy did not have a significant impact on the increase in the number of fishermen households in Sebatik. Therefore, it can be interpreted that there is a possibility of an emergence of other factors that cause the percentage of the number of fishermen households after the implementation of the ship sinking policy did not grow significantly.

From the interviews, it is known that other factors that influence the growth of the number of fishermen households in Sebatik are related to the availability of fishing capital. According to one fisherman in Sebatik, it has been a long time since some fishermen have received capital from Tauke (capital owner from Malaysia). He said that the Tauke provides capital without warranty to Sebatik fishermen, but in return, the catches of Sebatik fishermen had to be sold to Tauke. Here are the results of the interview with fishermen:

“The first time I set foot here in 1995 all our needs are given, they do not take a percentage or anything. They simply dare to give us boat capital and equipment. They do not ask for any guarantee...despite the fact that our fate depends on them”.

“The price of capture fisheries that are being sold there are all priced at flat rate, the Indonesian fishermen are only benefited through the fluctuation of ringgit currency, thus when the currency weaken, we are experiencing loss”.

To break the dependence of fishermen Sebatik to the capital of Tawau, local Government was in fact already trying to do in cooperation with the banking. However, Sebatik fishermen have constraints associated with the guarantee again and again. To receive a loan from a bank they need to have a land certificate, but their houses are above water, which makes it impossible to be certified.

Furthermore, the second indicator to see the consequences of the ship sinking policy on social aspects in Sebatik is the number of production of fish capture. Nationally, the number of capture fisheries production in 2016 reached 103.82%, exceeding the target set (Kementerian Kelautan dan Perikanan, 2016:38). However, this condition did not happen in Sebatik. Previous data show that from 2010 to 2015, the number of capture fisheries production in Sebatik had grown on average, but in 2016 and 2017, production decreased respectively by four and three percent (Figure 1). As with previous indicators, it can be concluded that the implementation of the ship sinking policy has not given significant consequences on the increasing number of capture fisheries production in Sebatik. Even at the end of 2016 and 2017, the number tends to fall.

If it is associated with the retrieved information from the performance report (LKJIP) of the Fishery Agency of Nunukan Regency, the decrease in production is possible due to two aspects. First, many "step-on charts" for catching tools are broken. The raw materials which are needed to make the tools, the Nibung trees, are becoming more difficult to obtain. Further, they come at a costly price. Second, the amount of material assistance from local governments to fishing groups such as for gillnet fishing gear, boat engines, and cool boxes provided to fishing groups is not proportional to their needs, which does not encourage increased production.
In addition, through interviews with the fishermen, it is further understood that there are constraints in fishing activities. Some fishing boats do not function properly (with machines above 10 GT). The boats are supported by the central government. The malfunction of these vessels is constrained by the problem of ship permits. After the birth of Law number 23/2014 on Regional Governments, licensing of vessels with engines below 10 GT, which previously was under the local government, turned to the provincial government, while for vessels with engines over 10 GT, the authority of licensing lies within the central government.

The fishermen also explained that ship permits that are not issued by the central government allow them only to go short distances at sea. According to them, this is due to the members of TNI being very strict and often patrolling. Thus, fishermen are worried about being caught. In fact, if fishermen could maximize the utilization of central government support vessels that have large ship engines (above 10 GT), it is expected they can boost the amount of capture fisheries production because the vessel is capable of operating beyond 12 nautical miles and longer operation time (Agunan, n.d:2).

Figure 4
Aid Vessel from Ministry of Marine Affairs and Fisheries

In early 2017, the Ministry of Marine Affairs and Fisheries released value data of fishery production in Indonesia. In 2016, the value increased from 116.3 trillion in the previous year to 125.3 trillion. The value of fishery production is also the highest in the last five years. Based on that, the value of fishery catch production becomes essential to be an indicator in analyzing the consequence of the implementation of ship sinking policy on the economic aspect of Sebatik.
Figure 5
Production Value of Fish Capture in Sebatik (million rupiahs) Source: BPS, modified

| No | Year | Number of Fish (ton) |
|----|------|---------------------|
| 1  | 2009 | 164.109             |
| 2  | 2010 | 169.342             |
| 3  | 2011 | 171.971             |
| 4  | 2012 | 169.821             |
| 5  | 2013 | 187.107             |
| 6  | 2014 | 205.686             |
| 7  | 2015 | 167.870             |
| 8  | 2016 | 150.314             |

Source: (Fishery Department of Malaysia, 2016)

Figure 5, shows that the trend of Sebatik capture fishery production value from 2009 to 2016 has consistently increased. The most significant increases occurred in 2010 and 2016, 52 percent and 78 percent respectively, while in other years the increase in production value is not too significant. If the value of production is compared with the number of capture fisheries production in Figure 1, then in 2016 there is an interesting phenomenon, where the number of fishermen fish production decreased by four percent from the previous year, while the value of fishery production actually increased significantly which is equal to 60,445,78 billion rupiah. This suggests that, although there is a decrease in the amount of production, there is no impact on the production value of Sebatik fishermen's fishing results.

Furthermore, data on the rise of the value of fishery production can also be associated with data on market absorption as illustrated in Figure 4. The data shows that the sale of fishery products of Nunukan Regency to Tawau increased from 2014 to 2016. The fishery production sold to Tawau is the result of capture fisheries from Sebatik fishermen. This condition shows that there is a correlation between the increasing numbers in the value production of the fishery of Sebatik fishermen with the increasing number in
sales of the catches to Tawau. Thus, it can be concluded that the expansion of value production of Sebatik fishermen has a correlation with the increasing number of Sebatik fish products sold in Tawau.

The high demand of the Tawau market for the catch results of Sebatik fishermen is also supported by data on the number of catches in Sabah. Tawau is a city located in Sabah, where fisheries are the main economic activities of its people (Kementerian Kelautan dan Perikanan, 2015:33). Therefore, the number of fish caught in Sabah can indirectly illustrate the production of fish in Tawau. Table 2 shows that from 2009 to 2014, the number of fish that arrived in Sabah has an average rise every year. On the contrary, in 2015 and 2016, this number decreased considerably, about 40 percent.

From the description above, it can be assumed that there is an important association between the increasing of Sebatik-caught fish value production with the increase of Tawau market absorption and the decrease of catch results of Sabah fishermen. Therefore, it can be concluded that the implementation of the ship sinking policy has given a positive impact directly on the economic aspects of Sebatik.

This conclusion also goes along with the findings described in the previous chapter, in which the fishermen of Sebatik are heavily dependent on the Tawau market, and illegal fishing practices also affect the fishermen of Sebatik and investors from Tawau. Therefore, the ship sinking policy can be considered to have succeeded in reducing the practices and increasing the sale value of Sebatik fishermen. This conclusion is also reinforced by the statement of Sebatik port officers who mentioned that when they visited Tawau, there were several Malaysian trawling boats that stalled and seemed to have been out of operation for a long time. They also obtained information from fishermen that the owners of these ships have not any longer operated their ships for fear of being caught and their ships detonated.

E. CONCLUSION

Overall, this study views the socio-economic consequences of the implementation of the ship sinking policy in the maritime border zone, specifically Sebatik that directly adjacent to Tawau Malaysia. In contrast to the perceived national impact, the implementation of the ship sinking policy in Sebatik does not have a considerable consequences on the social aspect. This is due to the increase in the number of fishing households and the number of fish production in Sebatik that remains not too significant. Even in 2016, the number of fish production in Sebatik underwent deterioration. Some explanations about the decrease in Sebatik fish production were due to the destruction of some fishing gear used by fishermen to catch fish and the lack of gillnet fishing equipment provided by the government compared to the demand proposed by the group of fishermen, while the growth of the number of fishing households that did not increase significantly was due to the constraints of fishermen in obtaining capital.

On contrary to the social aspect, the implementation of ship sinking policy instead has a positive effect on economic aspect. It is regarded from the increase the production value of fish captured in Sebatik. With the amount of production almost equaled to the previous year, the production value of Sebatik fisherman increased by 56 percent in 2016. From the economic aspect, it is also known that the implementation of the ship sinking policy gives consequences to the Tawau market absorption toward the Sebatik fish. This is as many fishing boats from Tawau are not operating for concern of being caught in Indonesian waters, so the demand for Sebatik fish in the Tawau market is increasing.

Departing from the impact analysis of the implementation of the ship sinking policy in Sebatik, it can be conveyed that the implementation of this policy can be an excellent
breakthrough, especially in maritime border zone like Sebatik because it is able to improve the bargaining position of Indonesian fish in the overseas market. Nevertheless, in order that the ship sinking policy gives more socio economic benefits to the fisherman, then there are a number of things that should be the focus of the government, i.e: first, there should be a synergy between local government and central government in providing assistance to fishermen so that the needs of fishermen (programs, ships, equipment, fishing gear and so on) can be met, and the assistance provided can be maximally utilized so it can have an impact on increasing fishery production. Second, given the considerable potential of Sebatik fishery, the government needs to initiate a more intensive guidance program for fishing groups based on priority, so that their success can be an example and an attraction for others to work as a fisherman. Third, it is necessary to intensify socialization and cooperation with neighboring countries related to the handling of illegal fishing in order for the ship sinking policy to become the final policy.

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