THE IMPLEMENTATION OF POLLUTER-PAYS PRINCIPLES ON MARINE POLLUTION CAUSED BY VESSELS IN INDONESIA
(The Study of Oil Spill Cases)

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Abstract
Nowadays, there are some marine pollution cases caused by oil spill from vessels. These cases give a significant impact on marine environment and threatening human’s life. Therefore, law enforcement is needed. One of the principles that can be used in solving this problem is Polluter-Pays principles. This principle found in the 16th principle of the Rio Declaration on Environment and Development on 2002. The requirement of the principle is cost of pollution should be borne by the person responsible for causing the pollution. National authorities should endeavor to promote the internalization of environmental costs and the use of economic instruments. This article aims to find out the implementation of polluter pays principles in Indonesia, especially in study of oil spill. Polluter pays principle can be used as one of solution in helping country overcome the loses oil spill cases within Indonesian waters. One of the challenges is Indonesia need a specific instrument used as a mechanism for calculating the loss or damage that should be paid by the polluters.

Keywords:
Environment; Marine Pollution; Oil Spill; Polluter-pays principle; Vessels.

I. INTRODUCTION

Marine pollution is pollution that occurs due to human activities resulting in damage to biological resources and all life in the sea. Pollution in the sea is compounded by an understanding of the inexhaustible resources of the oceans and the principle of freedom of the sea.¹ The United Nations Convention Law of the Sea (UNCLOS) article 192 states that “States must protect and preserve the marine environment.”

Article 194 of UNCLOS contains sources that cause pollution in the sea, one of the sources of pollution caused by ship waste. Article 194 (3) (b) states that “Pollution from vessels, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, preventing intentional and unintentional discharges, and regulating the design, construction, equipment, operation and marine vessels.”

¹ Marsuadi Triatmodjo, Pengembangan Pengaturan Hukum dan Kelembagaan Pencemaran Laut Oleh Sumber Dari Darat di Kawasan Asia Tenggara, Disertasi, Universitas Gadjah Mada, Yogyakarta, 2001, p. 3.
The pollution that has arisen can be solved by calculating the costs incurred.\textsuperscript{2} This method is called Polluter Pays. In 1972 the Polluter pays principle was adopted and developed by the Organization of Economic Cooperation and Development (OECD).\textsuperscript{3} The OECD has formulated related to the implementation of the Polluter pays principle, the party that carries out pollution should be burdened with the obligation to pay due to the pollution that has been caused.\textsuperscript{4}

Polluter pays principles not only concerns about the allocation cost of avoidance, removal, and compensation of environmental impact but also justifies measures of direct conduct (orders, prohibitions), incentive charge, and leads to claims which compel those responsible to do something, or to claim concerning liability under civil law.\textsuperscript{5}

Besides polluters should pay the compensation for the pollution that they have committed as well as take measures to restore the environment. From an economic perspective, this principle aims to provide potential polluters to avoid the risk of those who do not get benefit from managing the environment for economic purposes.\textsuperscript{6}

Polluter pays principle in Indonesia regulated in law number 32 of 2009 on Protection and Management of the Environment. Article 87 paragraph 1 states that “Every person in charge of a business and / or activity that commits an illegal act in the form of pollution and / or damage to the environment which causes harm to other people or the environment is obliged to pay compensation and / or take certain actions.”

Article 90 paragraph 1 states “Government agencies and local governments responsible for the environmental sector are authorized to file claims for compensation and certain actions against businesses and / or activities that cause environmental pollution and / or damage resulting in environmental losses.”

This research was conducted to see how the polluter pays principle is implemented in Indonesia and whether the polluter pays principle allows it to be used in solving oil spill cases at sea. Then, what are the obstacles and challenges faced by the Indonesian government in implementing the polluter pays principle.

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\bibitem{6} Muhammad Muhdar, \textit{Op. Cit.}, p. 78.
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II. RESEARCH METHODS

This research uses normative research methods, it will be using library research to get data, citing and analyzing data that are related to the object of the research. Data obtained from library research will be processed systemically to attain an appropriate depiction of the research problems. The data subsequently will be analyzed by using a qualitative approach so that it can be acquired objective analysis to answer the problem raised.

III. RESULTS AND DISCUSSION

3.1. Marine Pollution Under International Environmental Law

Marine Environment is regarded as a valuable source of food in terms of fisheries production, as the mode of transportation particularly for bulk carriers, and as recreational grounds. Firstly in article 1 (1)(4) of UNCLOS 1982 stated that pollution of marine environment means the introduction by man, directly or indirectly of substances or energy into the marine environment including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of seawater and reduction of amenities. Marine pollution is a form of marine environmental damage that can cause the sea to lose its proper function.7

Article 192 of UNCLOS 1982 states that “States have the obligation to protect and preserve the marine environment.”. This 192 article is followed by the next article namely article 193 which gives the State the right to manage its natural resources at sea.8 In article 207(2) of UNCLOS states “States shall take other measures as may be necessary to prevent, reduce and control such pollution”.

Article 211 of UNCLOS 1982 regulated pollution from vessels. In article 211(1) stated that "States, acting through the competent international organization or general diplomatic conference, shall establish international rules and standards to prevent, reduce and control pollution of the marine environment from vessels and promote the adoption, in the same manner, wherever appropriate of routing systems designed to minimize the threat of accidents which might cause pollution of the marine environment, including the coastline and pollution damage to the related interests of coastal states”.

Every state shall require the master of a vessel flying its flag or of its registry, when navigating within the territorial sea of a state participating in such cooperative arrangements, to furnish upon the request of that state information as to whether it is proceeding to a state of the same

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7UNCLOS 1982, art. 1 (1)(4).
8Masdin, Implementasi Ketentuan-ketentuan United Nations Convention On The Law Of The Sea(UNCLOS) 1982 Terhadap Perlindungan Dan Pelestarian Lingkungan Laut Di Indonesia, Jurnal ilmu hakam legal opinion, edition 2, vol. 4, 2016, p. 4.
region participating in such cooperative arrangements to indicate whether it complies with the port entry requirements of the state.⁹

Several articles of UNCLOS 1982 discussed the pollution that occurs in the sea. The measures to prevent, reduce and control pollution of the marine environment in UNCLOS 1982 has been stated in article 194(2)“ States shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights under this Convention”.

In article 194 (3)(b) of UNCLOS 1982 stated that “The measures taken according to this Part shall deal with all sources of pollution of the marine environment, pollution from vessels, in particular measures for preventing accidents and dealing with emergencies, ensuring the safety of operations at sea, preventing intentional and unintentional discharges, and regulating the design, construction, equipment, operation and manning of vessels”. Pollution from vessels is caused by operational discharges from ships, such as cleaning tanks or de-ballasting, or from discharges following accidents.¹⁰

In another convention such as International Convention for Prevention of Pollution from Ships 1973¹¹, grants the participating countries the imposition of controlling pollution caused by ships and entry into force in 1983 for the purpose “ to preserve the marine environment by achieving the complete elimination of international pollution by oil and other harmful substances and the minimization of accidental discharge of such substances”.¹² This convention has 5 annex which includes oil, noxious liquids, harmful substances, sewage, garbage.¹³

Marine pollution, all the states shall consistent with the rights of other states as far as practicable directly or through the competent international organization to observe, measure, evaluate and analyze by recognized scientific methods, the risks or effects of pollution of the marine

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⁹UNCLOS 1982, art. 211(3).
¹⁰Philippe Sands, Op. Cit., p. 438.
¹¹International Convention for the prevention of pollution from ships (MARPOL) 1973 is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes. The MARPOL Convention was adopted on 2 November 1973 at IMO. The Protocol of 1978 was adopted in response to a spate of tanker accidents in 1976-1977. As the 1973 MARPOL Convention had not yet entered into force, the 1978 MARPOL Protocol absorbed the parent Convention. The combined instrument entered into force on 2 October 1983. In 1997, a Protocol was adopted to amend the Convention and a new Annex VI was added which entered into force on 19 May 2005. MARPOL has been updated by amendments through the years. The Convention includes regulations aimed at preventing and minimizing pollution from ships - both accidental pollution and that from routine operations - and currently includes six technical Annexes. Special Areas with strict controls on operational discharges are included in most Annexes.
¹²Ahmad Syofyan, Tanggung Jawab Dalam Pencemaran Laut yang Disebabkan Oli Minyak Menurut Hukum Internasional, Universitas Lampung, 2010, p.12.
¹³Elin Alvinge, Dan Stoica, dan Kim Iversen, Oil Pollution in the Baltic Sea and the Effects on Fish and Fisheries (Something to worry about?), Environmental Studies, Aarhus University, Spring, 2001. p. 55.
environment\textsuperscript{14} and also state shall keep under surveillance the effects of any activities which they permit or in which they engage to determine whether these activities are likely to pollute the marine environment.\textsuperscript{15} Enforcement of international rules, regulations and procedures to prevent, reduce and control pollution of the marine environment from activities shall be governed.\textsuperscript{16} One of the solutions to solve the marine pollution problem can be by calculating the costs incurred that were caused by vessels, and this method called polluter pay.\textsuperscript{17}

3.2. Polluter Pays Principle Under International Environmental Law

Polluter pays principle is a principle of international environmental law that is applied to those who intentionally or unintentionally pollute the environment by burdening them by paying for acts of pollution that have been committed. Polluter pays principle is one of the fundamental principles of modern environmental policies nationally and internationally, it means that the cost of pollution abatement should be paid by the polluters and not by the governments.\textsuperscript{18}

This principle was known as an economic instrument to maintain the balance between natural resources exploitation and economic activities.\textsuperscript{19} The polluter pays principle was adopted and developed by the Organization of Economic Cooperation and Development (OECD) in 1972.\textsuperscript{20} In 1971 OECD was held a seminar discussed environmental economics where the polluter pays principle was the subject. After that in the 1990 International Convention on Oil Pollution Preparedness, Response and Cooperation the polluter pays principle was called the “general principle of international environmental law”\textsuperscript{21}, since it is not sufficiently grounded in state practice it is better to call it a principle of environmental policy and not environmental law.\textsuperscript{22}

Polluter pays principle is an economic instrument that imposes costs on polluters, which can also be interpreted by instruments that require legal accountability for pollution.\textsuperscript{23} The principle not only concerns the allocation of the cost of avoidance, removal and compensation of environmental impact. It also justifies measures of direct conduct (orders, prohibitions), incentive charge, and leads to claims which compel those responsible to do something or to claim concerning liability under civil

\begin{itemize}
\item \textsuperscript{14}UNCLOS 1982, art. 204 (1).
\item \textsuperscript{15}UNCLOS 1982, art. 204 (2).
\item \textsuperscript{16}UNCLOS 1982, art. 215.
\item \textsuperscript{17}John Maddox, \textit{Loc. Cit.}, p. 25.
\item \textsuperscript{18}Westone, Gregory & Rosencranz, A, “Transboundary Air Pollution: The Search For An International Response”, \textit{The Harvard Environmental Law Review}, 8, 1984, p. 97.
\item \textsuperscript{19}Muhammad Muhdar, \textit{Loc. Cit.}, p. 75.
\item \textsuperscript{20}Philippe Sands, \textit{Loc. Cit.}, p. 281.
\item \textsuperscript{21}See Preamble of the Convention.
\item \textsuperscript{22}Boyle, A. E, “Making the Polluter Pay? Alternatives to State Responsibility in the Allocation of Transboundary Environmental Costs”, in \textit{International Responsibility for Environmental Harm}, Graham & Trotman, 1991, p. 376.
\item \textsuperscript{23}Muhammad Muhdar, \textit{Loc. Cit.}, p. 73.
\end{itemize}
law. Therefore, this principle serves as a substantial principle in determining responsibility for environmental impact, danger and risk.  

The implementation of the polluter pays principles considers the regulation to be exceptional value in achieving immediate results or speeding pollution reduction needed to safeguard public health or abate unacceptable nuisance and prescribes it as one of the main instruments for implementing the polluter pays principle. The polluter pays principles application for accidental pollution, whereby administrative measures implemented by the authorities before an accident to prevent accidents in specific hazardous installations or taking remedial action should accidental pollution occur could be covered by the polluter pays principle.

In article 235 of UNCLOS 1982 confirms that each country is responsible for fulfilling international obligations to protect and preserve the marine environment. Each country seeks to provide a legislation system on how to obtain adequate and adequate compensation relating to damage caused by individuals or legal entities. Each country must implement international law governing the responsibilities and obligations of compensation as well as payment procedures.

Another International convention that also discussed one of the dispute resolutions of marine pollution is the Protocol of 1992 to Amend of Civil Liability Convention (CLC) for Oil Pollution Damage. The Civil Liability Convention is a convention that regulates the compensation for pollution of the marine environment caused by oil due to tankers. The Civil Liability Convention was adopted to ensure that adequate compensation is available to persons who suffer oil pollution damage resulting from maritime casualties involving oil-carrying ships.

The convention stated that pollution damage is loss or damage caused outside the ship by contamination resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur, provided that compensation for impairment of the environmental other than loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement undertaken or to be undertaken and stated ‘Incident’ means any occurrence, or series of occurrences.

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24 Seerden, Rene J.G.H., Michiel A, Heldeweg and Kurt R. Deketelaere (eds), Loc. Cit., p. 210-211.
25 Ibid, p. 69.
26 Ibid.
27 OECD, Recommendation on the Application of the Polluter Pays Principle to Accidental Pollution, C(89) 88 (Final).
28 Masdin, Op. Cit., p. 5.
29 Suhaidi, Perkembangan Konvensi-Konvensi International IMO: Ketentuan-Ketentuan Tentang Ganti Rugi Dari Pencemaran Yang Bersumber Dari Kapal, Program Studi Hukum Internasional Fakultas Hukum Universitas Sumatera Utara, Medan, 2005, p. 3.
30 International Maritime Organization (IMO), “ International Convention on Civil Liability for Oil Pollution Damage (CLC)”, <http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-on-Civil-Liability-for-Oil-Pollution-Damage-(CLC).aspx> [accessed on 19 December 2019].
31 Protocol of 1992 to Amend of Civil Liability Convention (CLC) for Oil Pollution Damage, art. 1 (6)(a).
having the same origin, which causes pollution damage or creates a grave and imminent threat of causing such damage.\(^{32}\)

Civil liability can be applied only for damage caused by oil spills from tankers and does not include oil spills that are not from cargo or pure prevention efforts are carried out, where no oil was spilled from tankers.\(^{33}\)

States also shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage and also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.\(^{34}\)

### 3.3. Polluter Pays Principle For Marine Pollution In Indonesia

In Indonesia, the polluter pays principle regulated in act number 32 of 2009 on environmental protection and management as well as in act number 32 of 2014 on the sea. The principle of environmental protection and management is implemented based on:\(^{35}\)

a. State responsibility;
b. Preservation and sustainability;
c. Harmony and stability;
d. Cohesiveness;
e. Benefits;
f. Precautionary;
g. Justice;
h. Ecoregion;
i. Biodiversity;
j. Polluter pays;
k. Participatory;
l. Local ability;
m. Good governance;
n. Regional autonomy;

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\(^{32}\)The protocol of 1992 to Amend of Civil Liability Convention (CLC) for Oil Pollution Damage, art. 1 (8).

\(^{33}\)Harsanto Nursadi, *Implementasi Prinsip Pencemar Membayar Menurut Undang-Undang Nomor 32 tahun 2014 Tentang Kelautan*, Badan Pembinaan Hukum Nasional Kementerian Hukum dan HAM RI, 2015, p. 27.

\(^{34}\)The Rio Declaration, UN, Principle 13, 1992.

\(^{35}\)Act number 32 of 2009 on Protection and Management of the Environment, art. 2.
Polluter pays principle is a principle of international environmental law that is applied to those who intentionally or unintentionally pollute the environment by burdening them by paying for acts of pollution that have been committed. This principle was known as an economic instrument to maintain the balance between natural resources exploitation and economic activities. The polluter pays principle also the principle that often spoken in international declarations, which then be included in international conventions and become the principle of international environmental law.

The use of the polluter pays principle besides responsible to pay the compensation, the judges can charge the polluter as an act, such as:

a. Installation and repair of waste treatment installation following the quality standards of environmental principles
b. Recover the environmental functions
c. Eliminating the factors that causing environmental damages

Theoretically, the polluter pays principle is an economic policy in the framework of allocating costs for pollution and environmental damage, but then has implications for the development of international and national environmental law related to the issue of compensation liability or environmental costs that must be borne by a public official. Polluter pays principle in Indonesia runs and can be applied in Indonesia.

Polluter pays principle in resolving the disputes over marine pollution can be maximized on condition that should do mapping beforehand towards 3 things, such as:

a. The activities that can pollute the sea
b. The project that applies polluter pays principle in disputes of marine pollution
c. The obstacles to applies polluter pays principle in disputes of marine pollution

One of the activities that can be categorized as the activity of marine pollution is marine connection or vessels activities. Marine pollution caused by vessels usually can be find in ships carrying oil as cargo or tankers. The pollution generally occurs due to oil spills from vessels, both coming from tankers or oil spills from the process of vessels dumping dirty oil contained in engines or cargo.

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36 Muhammad Muhdar, Loc. Cit., p. 75.  
37 Elli, International Environmental Law, Fairness, Effectiveness, and World Order, United Kingdom: Cambridge University Press, 2006, p. 51.  
38 N.H.T. Siahaan, Hukum Lingkungan dan ekologi pembangunan. Edisi kedua, (Jakarta: Erlangga, 2014), p. 310.  
39 Laode M Syarif, Andri G Wibisana (ed), Hukum Lingkungan Teori, Legislasi dan Studi Kasus, (Jakarta: USAID), p. 54.  
40 Ibid., p. 51.  
41 Koesnadi Hardjasoemanti, “Hukum dan Lingkungan Laut di Indonesia”, (Program Pasca Sarjana Fakultas Hukum Universitas Indonesia: Jakarta, 2001), hlm. 261, sebagaimana dikutipoleh Diah Okta Permata, “Penerapan Pengaturan Pembuangan Limbah Minyak ke Laut oleh Kapal Tanker Dilihat Dari Perspektif Hukum Lingkungan di Indonesia”, 2014, p. 156.
Environmental pollution originating from ships other than oil can also come from toxic liquid substances, dangerous substances in the form of packages, dirt, garbage, air, ballast water, and goods or substances that are harmful to the environment on the ship.\textsuperscript{42}

In the general provisions of government regulation number 21 of 2010 article 1 (2) says that “Prevention of pollution from ships is an effort that must be made by the crew as early as possible to avoid or reduce pollution of oil spills in the sea, toxic liquid materials, dangerous cargo in packaging, sewage, garbage, and exhaust gases from ships into the water and air”.

The institution that has a role for law enforcement is \textit{Badan Keamanan Laut (Bakamla)}\textsuperscript{43}. \textit{Bakamla} was formed through presidential decree number 178 of 2014 based on act number 32 of 2014 on the sea.\textsuperscript{44} Based on president decree number 178 of 2014 the authorities of \textit{Bakamla} are conducts instant chases, stops, inspects, captures, carries, and give the ships to the relevant authorities authorized for the implementation of further legal processes, and integrates security and safety information systems in Indonesian jurisdictions.\textsuperscript{45}

Whereas in implementing civil law enforcement, \textit{Bakamla} cooperate with the Ministry of Maritime Affairs and Fisheries (\textit{KKP}) and the Ministry of Environment and Forestry (\textit{KLHK}). \textit{KKP} is one of the government bodies that has a main duty in the sea and in the case of fisheries. \textit{KKP} activities are based on two acts, namely the act number 27 of 2007 on to management of coastal areas and small island. Second, the act number 45 of 2009 on fisheries\textsuperscript{46}. \textit{KLHK} activities are based on two acts, namely the acts number 49 of 1999 on forestry and the act number 32 of 2009 on environmental protection and management.\textsuperscript{47}

\textit{Bakamla} with \textit{KLHK} optimizes the application of article 90 paragraph 1 that stated “Government agencies and local governments that are responsible for the environmental sector are authorized to file claims for compensation and certain actions against businesses and / or activities that cause environmental pollution and or damage resulting in environmental losses”.\textsuperscript{48}

The calculation for polluter pays principle in the case of oil spills can be calculated from whether the polluted area is a conservation area, whether the area is a fishing area, and is there any impact on the people living in the polluted area. All aspects are taken into account. Methodologically

\begin{itemize}
\item \textsuperscript{42}Government regulation number 21 years 2010 about Marine Environment, art 3 (2).
\item \textsuperscript{43}The Maritime Security Agency (\textit{Bakamla}) is a body tasked with conducting security and safety patrols in Indonesian territorial waters and Indonesian jurisdictions. \textit{Bakamla} is a non-ministerial government institution that reports to the President through the Coordinating Minister for Political, Legal and Security Affairs.
\item \textsuperscript{44}Harsanto Nursadi, \textit{Op. Cit.}, p. 51.
\item \textsuperscript{45}Margaretha Quina and Henri Subagiyo, \textit{Undang-Undang No.32 Tahun 2014 Tentang Kelautan “Penegakan Hukum di Laut: Peluang dan Tantangan”}, Jurnal Hukum Lingkungan, Vol. 2 Issue 1, 2015, p. 97-98.
\item \textsuperscript{46}Ibid., p. 34.
\item \textsuperscript{47}Ibid., p. 36.
\item \textsuperscript{48}The Act number 32 of 2009 on Protection and Management of the Environment, art. 90 (1).
\end{itemize}
and technologically, the damage pattern can be mapped so that the extent of the impact affected by the oil spill can be calculated.\textsuperscript{49} Whatever cases occur at sea that result in pollution at sea caused by ships, can claim a loss. If the parties concerned have agreed between the perpetrator and the claimant according to the calculation of the total loss, then the money must be paid directly to the state treasury.\textsuperscript{50}

For implementing of polluter pays principle, sometimes is not always going through the courts because the parties related to the case do not want have problems with the company’s credibility. So, the implementation of polluter pays principle settlement done by agreement between parties.\textsuperscript{51}

\textbf{3.4. Challenges In Implementing Polluter Pays Principle}

Polluter pays principle can be used as an option in handling cases of marine pollution caused by vessels. However, there are several obstacles that occur in some parts, namely the ambiguity of which parties will enforce legal action for pollution that occurs at sea, human resources, and the payment.

The main obstacle to the application of polluter pays principle in Indonesia is the lack of clarity about the regulation of polluter pays principle in marine law. In the marine law polluter pays principle is not regulated in the “principle” provisions, but instead is directly placed in the provisions regarding disputes and the application of sanctions.\textsuperscript{52} Polluter pays principle is not regulated completely in the marine law.

The ambiguity of the regulation regarding polluter pays principle also results in problems regarding which parties have authority in law enforcement. The issue of law enforcement at sea has been an institutional issue related to overlapping authority and weak coordination between institutions with different authorities.\textsuperscript{53} Although Bakamla has the authority to carry out coordination and, the KKP and KLHK also have the authority to directly enforce the law. The ambiguity of regulations in the Maritime Law can be overcome by strengthening coordination with relevant ministries.\textsuperscript{54}

The overlapping of duties and authority over these institutions, many authorities are patrolling the sea in order to maintain the security of the sea with duties and functions that are not well coordinated, resulting in minimal legal certainty. Overlapping of power results in holes in law

\textsuperscript{49}The interview of the respondent of Deputi of Indonesia Coral Reef Action Network (I-CAN), Amiruddin on 20 March 2020
\textsuperscript{50}Ibid.
\textsuperscript{51}Ibid.
\textsuperscript{52}Muhar Junef, \textit{Implementasi Undang-Undang 32 Tahun 2014 Tentang Kelautan (STUDI KASUS PRINSIP PENCEMAR MEMBAYAR)}, \textit{Jurnal Penelitian Hukum DE JURE}, Vol. 16, 2016, p. 460.
\textsuperscript{53}Margaretha Quina and Henri Subagiyo, \textit{Loc. Cit.}, p. 95.
\textsuperscript{54}Harsanto Nursadi, loc.cit., p.56.
enforcement so that the implementation of law enforcement is not optimal, especially for polluter pays principle due to the lack of understanding of the coordination of functions between state institutions.

Lack of human resources in handling sea cases is also an obstacle, so that accidents occur at sea do a long enough research to calculate losses. The meaning by a lack of resources here are people who have knowledge of marine and expert on several fields such as coral reef experts and marine conservation experts, so that it takes a long time to examine the loss and will lose valid data on the damage.

In polluter pays principle the calculation of the damage that arises is very important. If data damage arises due to lack of validity it will be difficult to calculate exactly how much loss must be compensated. If there is pollution at sea, it is hoped that the solution and responsibility will be as fast as possible so that the damage does not become widespread.

In relation to regulation for the payment, there is no definite regulation regarding the calculation or formulation of how to calculate how much money polluters should pay when using polluter pays principle, so that experts in their field can calculate the losses incurred. As of the oil spill case, If the ship company has insurance, the insurance company they use will pay compensation for marine pollution. The obstacle that occurs here is if the company uses insurance that is in the country or national ownership then not all damages will be covered, but only in part. Meanwhile, if the company uses insurance that is abroad, then all damages will be borne entirely by the insurance.

IV. CONCLUSION

Equity crowdfunding is a form of new innovation funding sources outperforming the initial public offering of shares (IPO), basically because it is practical and simple, so it does not require large costs and without the involvement of a number of professions and supporting institutions such as professions and institutions capital market supporting institutions. Regarding crowdfunding equity is specifically regulated in POJK No. 37 / POJK.04 / 2018 Concerning Funding Services through Equity Crowdfunding, where equity crowd funding is the result of innovation as well as breakthroughs in the development of capital markets that adapt to current patterns of market and economic development. Equity crowdfunding is increasingly in demand as an alternative source of financing that is practical, simple and fast.

Legal protection of Equity Crowdfunding for registered Investors in providing up-to-date information on the Fund's collection service does not regulate the provision of up-to-date information on the Funding service to Investors that have been registered directly via telephone contact or email, only in the provisions of chapter 54 paragraph (2) POJK No. 37 / POJK.04 / 2018, the provision of

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55 Ibid.
56 Ibid.
up-to-date information on fund collection services is only placed on the organizer's website or website.

The law is an instrument that provides objectives in the form of certainty, fairness and expediency, always developing following the community. In fact, it is not strange if the law grows behind the activities that arise and grow in society. The more widespread practice of fund raising services through equity offering (equity crowd funding), it is necessary to have more up-to-date legal instruments that dynamically follow the development of human life. Capital Market Law (UUPM) regulates public companies and public companies that offer securities that are both equity and debt to the public. While the Issuer companies in equity crowdfunding activities are neither public companies nor public companies, so the Capital Market Law as an umbrella law overseeing information technology-based stock offering activities to the general public is inaccurate and inadequate. For this reason, it is recommended that the Government and the Parliament immediately create a new Capital Market Law, which is not only adjusted to the OJK Law but also which houses the offering of securities in accordance with its development in the community.

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