

# Protection of Salt Farmers from the Impact of Marine Pollution (Victimology Perspective)

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This article reports that even though Indonesia is a maritime country, there efforts to increase salt production have been limited, including efforts to improve its quality. Salt is a complement to food needs and is a source of electrolytes in the human body. On the other hand, to get good quality salt we have imported from abroad, especially iodized salt for consumption as well as industrial salt. The productivity of the Indonesian salt business has not yet made a significant contribution to the fulfillment of domestic salt. This descriptive study aims to describe some of the obstacles of salt farmers in increasing their production including reviewing protection from marine pollution and regulating salt imports. Protection is very important so as to make it easy for salt farmers to carry out their production activities. This can also support the achievement of the salt self-sufficiency program. The results showed that the policy settings contained in Law No. 7 Year 2016 concerning Protection and Empowerment of Fishermen, Fish Cultivators, and Salt Farmers as the umbrella act were not optimal because of overlapping and contradictory rules, therefore they did not provide protection and welfare for salt farmers.

**Keywords:** *Protection, Salt Farmers, Marine Pollution, Victimology*

## Introduction

Indonesia's sea area is wider compared to its land area of 2.01 million km<sup>2</sup> compared to 3.25 million km<sup>2</sup> of sea area. That vast sea area has the potential to produce salt that should be able to meet domestic needs. However, the high potential wealth of marine resources (non-biological), has not been matched by the capacity and technology capacity to fulfill national salt production. Especially in terms of government policies that continue to open up salt import policies, further weakening the competitiveness of local salt and not taking sides with

salt farmers. This is ironic as well as evidence that there are inaccuracies or errors in national development strategies, especially the handling of government in the field of salt management which leads to the choice of the salt import policy (Fauzin, 2019).

On the other hand, according to the Ministry of Maritime Affairs and Fisheries BPPP (2017), the location of ponds must be protected from polluted waters, have clean conditions, no garbage, be clear and without too much solid substance suspension. The location of salting land must also be located far enough from industrial areas, ports, settlements, agriculture and big cities to avoid pollution of salting raw materials during the production process. According to Suhelmi et al., (2013), the environmental conditions of the waters, soil and air around have a big influence on the process of making salt. Generally, the seafront areas are used as saline land because of the easy access to drainage water into ponds. Coastal areas are very vulnerable to potential pollution. This is because the seashore is the final disposal site of all types of waste containing heavy metals such as Pb.

In other studies, lead is still commonly found in our environment. Pb compounds enter the environment as a result of the activities of human life, including wastewater from industries related to Pb, wastewater from mining lead tin, waste from the battery industry, and shipping or port activities. The wastewater enters the river water and is brought to the sea waters (Palar, 2012). Pb metal in seawater eventually enters the pond and follows the salt production flow. The results of Widyasari et al. (2013) state that the levels of lead heavy metals (Pb) in waste at the final waste processing site are quite high, reaching 0.174 ppm, exceeding the maximum allowable limit of 0.05 mg/l. This is in line with the results of research by Kristiyaningsih and Sudarmaji (2008) who found that the levels of Pb in salt around landfills has exceeded the maximum value requirement.

High levels of lead are thought to come from rubbish mixed with rubbish heaps such as used batteries, food wrapping plastics, cigarette wrappers, residual packaging of pesticides and paint. If the garbage is mixed and the volume of waste is continuously increasing then the heavy metal content (such as lead) also increases and it is likely that the lead will carry over and decompose in leachate water then seep following groundwater flow.

Fuadiyah research results (2014) also showed that the Pb content in sea water in Kenjeran Beach in Surabaya was 0.2066 mg/l and in sea water of the Pamekasan Regency was 0.3466 mg/l. The lead content in the two locations has exceeded the established environmental quality standard of 0.1 mg/l, this is due to the fact that there are more than 150 companies in the city of Surabaya that dump their waste directly into the Surabaya river which empties into the Madura Strait, among others: the food industry, chemical industry, three metal industries, paper industry, and the general population. Heavy metal pollution such as mercury, lead, cadmium, and chromium originates from industry (electroplating, chemical industry,

detergents, paints, ceramics, paper) and agricultural activities and is categorised as inorganic waste (East Java Regional Development Planning Agency, 2011).

Lead (Pb) is a metal that is toxic to humans, originating from food, drinks or through inhalation from the air, dust contaminated with Pb, contact through the skin, and eyes. If accumulated in the body, then it has the potential to become toxic in living things. One of the impacts caused by Pb is dental caries (Moelyaningrum, 2016) when it is distributed to soft tissue and then deposited on bone and teeth. Pb deposit in the bone will increase the risk of osteoporosis (Moelyaningrum, 2017). In addition, if the salt contains high levels of Pb and is consumed by living creatures, especially humans, it will be very dangerous because of the nature of Pb which is persistent on the environment and high lead toxicity (Pb). In the human body, Pb can inhibit the activity of enzymes involved in the formation of haemoglobin (Hb) and a small portion of Pb is excreted through urine or faeces. Others accumulate in the kidneys, liver, nails, fat tissue and hair (Widowati et al., 2008). Pb exposure to children will be more dangerous. Lead poisoning that occurs in children will cause a decrease in IQ and concentration of attention, difficulty in reading and writing, hyperactivity and behavioural disorders, impaired growth, function of vision and movement, hearing loss, anaemia, damage to the brain, liver, kidneys, nerves and digestion, coma, and convulsions or epilepsy (Moelyaningrum, 2010).

Salt consumption is very important for the body and its use is needed both on an industrial and household scale (NurusSamsiyah et al, 2019), therefore the authors are interested in reviewing the policy of protecting salt farmers from the effects of sea pollution and the impact of salt imports. This is important because so as to know how to provide protection for salt farmers as salt farmers can become victims of both.

The quality of salt is mainly determined by the location of manufacture. Salting sites should be located quite far from industrial areas, ports, settlements, agriculture and big cities. The location of salting in Pamekasan Regency is on average quite close to residential areas, highways, tofu industry, markets, boat docks, oil and gas terminals, fish management centre zones (PPI), fish auction areas (TPI), batik industry, and residential areas with a range of around 25 meters. Based on Kusnopranto (2007), a distance of 25 meters from a pollutant source is an area of chemical contamination. Therefore, the discovery of pollutant chemicals in salt in Pamekasan Regency can be sourced from the marine water environment as raw material, the soil environment as a media / place of salt production and the air environment where the production process takes place in open fields (NurusSamsiyah et al, 2019).

The Ministry of Maritime Affairs and Fisheries (KKP) said the national salt demand was 1.44 million tons, while the total domestic salt production was 2.97 million tons. Despite the surplus, the government still imports salt because the salt of local production is not completely absorbed. Salt imports continue to be carried out every year to meet domestic salt needs. Based on data processed from various sources in the last three years there has been an

increase in the number of salt imports. In 2017 Indonesia imported 2.5 million tons of salt. The number of salt imports increased in 2018 to 3.7 million tons and in 2019 amounted to 2.7 million tons.

Madura is a central salt producing region and is one of the top three salt suppliers in the country. Based on the 2014 KKP data, the Share of Smallholder Salt Production Each Region Against National Salt Production, including produced from 4 districts on the island of Madura, namely Sumenep totalling 11.67%, Sampang 10.25%, Pamekasan 3.57% and Bangkalan 0.35 %. The overall total reached 25.84%. However, the high salt production on the island of Madura is not followed by the welfare of the farmers. Research conducted by Ihsannudin (2012) shows the poverty experienced by salt farmers, especially in the Sampang district. The research findings revealed that the tiller farmers received a 30% share of the total production obtained and the remaining 70% was given to landowners. Of this amount, the income generated by farmers (Mantong) per month is Rp. 231,148 per hectare per month or around Rp. 7,705 per day. When using World Bank criteria which states that poverty is a population with an income of under 2 dollars per day, then this salt-pocket community needs to be of concern (Fauzin, 2019).

The victimology perspective is important in assessing victims, aiming to provide orientation to the welfare of society, the development of humanitarian society, in its efforts to make community members not victims in the broadest sense (Dewi Setyowati, 2019). As stated by Mendelsohn (1974) that victimology should be separate and autonomous science, should have its own institutions and should be allowed to develop for the well-being and progress of humanity.

The study of victims in victimisation, provides an idea of the field of exploration in victimisation, namely:

1. The social context in which victimisation occurs. Social context refers to the cultural values of traditions and structures that affect differences, positions, individual or group status such as social pressure, conflicts, evil stamps, structural imbalances between the aims and methods of the social system, opportunities for other ways to use illegal methods and for differential association, and ways of resolving conflicts.
2. The social consequences of victimisation can adversely affect certain individuals, groups, the wider community, and humanity in general, both medically and with psychiatric, criminological and social implications. This involves certain problems of collective behaviour, in a process that is difficult to understand because the community or the holders of power from the community are sensitive enough to determine the bad influence, as the problem of society. In other words, a strong influence might exist and be attached for a long time, without it has not been seen and published as problematic (Dewi Setyowati, 2019).

The development of victimisation as a study of victims with all its aspects was originally a dominion area of criminology, with aspects and facets of criminology or criminology being the focus of attention. In its development it is recognised independently as a science that stands alone, as a new science in Indonesia that can be seen as a terra incognita (J.E.Sahetapy, 1987).

On the other hand, the condition of victimisation in this problem can be interpreted as powerlessness, which occurs when an individual has limited or no access to interpersonal or structural power.

Empowerment refers to a process whereby the conditions that exist and cause the emergence of powerlessness are recognised and eliminated. Two important factors in empowerment are helping members of the organisation to believe in their ability to show good performance and improve the relationship between business and performance (RiniNurahaju, 2011).

## The Study

For quality salt, the ideal location for making salt is to meet the requirements including sloping location, watertight, sea water that can rise to salt ponds (with or without the aid of equipment), and a minimum raw water concentration of 2.5 degrees. The location is also clean of fresh water sources, with little rainfall and plenty of sun for optimal evaporation of sea water. A long dry season will reduce the frequency of rain. The appropriate consumption salt quality according to the Indonesian National Standard is minimum to contain NaCl of 94.7% (included in the quality II category) and must have an iodine content of 30-80 ppm. To produce good quality salts, calcium, magnesium and sulfate compounds must first be precipitated. In people's salt which utilises the total evaporation model, the highest salt content that can be produced is rarely reach contain of NaCl 90%, so special treatments are needed to produce high quality salt. It is necessary to produce high-grade salt with NaCl levels of more than 95% so that Indonesia is able to become self-sufficient in salt even as the world's leading exporter of high-quality salt (BagiyoSuwasono, 2019).

Table 1. Salt Quality Based on NaCl

Quality	Substance	Ks
Quality I	NaCl >98%	Maximum Water Content 4%
Quality II	94,4% < NaCl < 98%	Maximum Water Content 5%
Quality III	NaCl < 94%	Content > 5%

Source: PT. Garam (2000)

Protection of salt farmers through social protection policies is very important so as to provide convenience for farmers in carrying out their production activities. This can also support the achievement of a salt food self-sufficiency program, in addition to land availability and

farmers' development by the government. This policy also serves to improve the quality and quantity of people's salt production, so that it can support national salt production and absorption by the industrial market. Thus, dependence on imported salt can be reduced simultaneously. The indirect impact of this policy is the preservation of salt farmer regeneration, which can lead to the preservation of the sustainability of the salt industry (salt pond workers).

The policies of the Central Government in the form of laws and regulations relating to salt, include the following:

1. Law Number 13 of 1959 concerning the Establishment of Emergency Law Number 25 of 1957 concerning the Elimination of Salt Monopoly and Fabrication of People's Salt;
2. Law Number 7 of 2016 concerning Protection and Empowerment of Fishermen, Fish Hatchers, and Salt Farmers;
3. Government Regulation Number 9 Year 2018 concerning Procedures for Import Control of Fisheries and Salting Commodities as Raw Materials and Industrial Auxiliary Materials;
4. Regulation of the Minister of Trade of the Republic of Indonesia Number 20 / MDAG / Per / 9/2005 concerning Provisions on Import of Salt;
5. Regulation of the Minister of Industry of the Republic of Indonesia Number 34 of 2018 concerning Procedures for the Provision of Imports of Salting Commodities as Raw Materials and Industrial Auxiliary Materials; and
6. Regulation of the Minister of Maritime Affairs and Fisheries of the Republic of Indonesia Number 3 / Permen-KP / 2019 Regarding Community Participation in Organizing Protection and Empowerment of Fishermen, Fish Cultivators, and Salt Farmers.

Various laws and regulations issued by the central government should aim to improve the quality and quantity of salt which results in the welfare of salt farmers. In the contents of the 2015-2019 National Medium-Term Development Plan (RPJMN) document the Indonesian government wants to realise economic independence by moving the strategic sectors of the domestic economy, one of them by increasing the sovereignty of the salt sector. Specifically, the sovereignty target of the salt sector is targeted to be able to meet the needs for household salt consumption. The Ministry of Maritime Affairs and Fisheries in its strategic plan for 2015-2019 production of community salt is targeted to reach 4.5 tons in 2019. The purpose of the RPJMN in the salt sector is followed up with the issuance of Law Number 7 of 2016 concerning Protection and Empowerment of Fishermen, Pembudi Power Fish and Salt Farmers. It is expected that the enactment of Law No. 7 of 2016 can provide protection for the existence of national salt amid the incessant import of salt. Strictly speaking, in his

consideration, it was formulated that the Pancasila and the 1945 Constitution of the Republic of Indonesia mandated that the state had the responsibility to protect all Indonesians and all Indonesian bloodspots and to advance public welfare, develop the life of the nation, and realise social justice for all Indonesian people. In order to realise the state's goal of prospering the people, including fishermen, fish resource growers, and salt farmers, the state organises protection and empowerment of fishermen, fish resource growers and salt farmers in a planned, directed and sustainable manner. The substance in the consideration of the Law is meaningful as part of legal politics. The formulation of several articles in Law Number 7 of 2016 is a translation of the preamble substance in the weighing section. Some of the articles are as follows:

- a. Article 1 number 1: Protection of fishermen, fish resources and salt farmers is any effort to help fishermen, fish fishers and salt farmers in facing difficulties in carrying out fisheries or salt business. In Article 1 number 1 this provides an understanding of protection, including for salt farmers. What is meant by protection for salt farmers is all efforts to help salt farmers in facing the difficulties in the salt business. Thus, salt farmers should really get the attention of the central government when facing problems both caused by weather, climate and by policies that do not favour salt farmers (import policy).
- b. Article 3: Protection and empowerment of fishermen, fish cultivators, and salt farmers aims to: provide the infrastructure and facilities needed in developing a business; provide business continuity certainty; increase the ability and capacity of fishermen, fish hatchers, and salt farmers; strengthen institutions in managing fish and marine resources and in running businesses that are independent, productive, advanced, modern and sustainable; develop the principle of environmental sustainability; develop financing systems and institutions that serve business interests; protect against the risks of natural disasters, climate change, and pollution; and guarantee security, safety and legal assistance.
- c). Article 8 Salt Farmers as referred to in Article 5 paragraph (1) include: Small Salt Farmers; Salt Pond Cultivators; and Salt Pond Owners who own land of more than 5 (five) hectares up to 15 (fifteen) hectares. Article 8 classifies salt farmers into three types, namely small salt farmers, salt tiller farmers, and salt pond owners who have an area of more than 5 hectares to 15 hectares.
- d). Article 11 paragraph 2: The central government and regional governments are prohibited from making policies that conflict with the efforts to protect and empower fishermen, fish breeders, and salt farmers. If Article 11 Paragraph 2 is implemented, then there should never be a policy that harms salt farmers. There is no import policy that worsens the position of salt farmers.
- e). Article 12 paragraph 2: The protection strategy is carried out through: provision of fishery business and salting business infrastructure; ease of obtaining facilities for fishery and salt business; business certainty assurance; guarantee of the risk of catching fish, breeding fish, and salting; elimination of high-cost economic practices; controlling import of fisheries and salt commodities; security and safety guarantees; and legal facilitation and assistance.



f). Article 16 paragraph 1: The central government and regional governments in accordance with their authorities are responsible for the protection of fishermen, fish cultivators and salt farmers.

Some of the articles mentioned are only part of the articles in Law Number 7 of 2016 published in order to provide protection to salt farmers. However, there are many regulations which are hierarchically lower than Law Number 7 Year 2016 which are distorted or contradictory.

Among the contradictory regulations is Government Regulation No. 9 of 2018 concerning Procedures for Import Control of Fisheries Commodities and Salting Commodities as Raw Materials and Industrial Auxiliary Materials. This government regulation becomes one of the regulations that caused salt nationally manage. Examples of regulations that cause problems in salt management are the formulation of Article 5 paragraph 3: "The volume and time of entry of Salting Commodities referred to in Article 3 paragraph (3) letter c and letter d, are determined based on the results of a coordination meeting held by the ministry that holding government affairs in the field of economic coordination". Provisions that the volume and time of entry of salt commodities are determined based on the results of a coordination meeting held by the ministry that organises government affairs in the field of economic coordination leads to problems in the salt trade system.

Furthermore, the provisions in Article 6 regulating that approval of imported commodities for salting commodities are issued by the minister who carries out government affairs in the field of trade for raw materials and industrial auxiliary materials in accordance with the recommendations of the minister who carries out government affairs in the industrial sector. These two articles are a clear form of national salt liberalisation in the name of industry. Thus, it is clear that Government Regulation Number 9 of 2018 contradicts Law Number 7 of 2016. That is because the regulations relating to the management of salt according to Law Number 7 of 2016 regulates that the control of imports of fisheries and salt commodities must be done through the determination of time of entry. In this case, salt imports should not be done close to the people's salt harvest season because it will have an impact on falling salt prices at the community level.

However, if you read the history of the salt policy, it turns out that it has repeatedly published policies that are detrimental or are a source of problems in national salt management. In 2005 the Minister of Trade Regulation No. 20 / MDAG / PER / 9/2005 was issued concerning the import of salt. Subsequently, changes were made in 2007 which emphasised the regulation of who can import salt. Importers who can import salt are divided into two categories, namely iodised and non-iodised salt importers and can only import outside the salt harvest period.

Re-issuance of changes to regulations related to salt imports is happening in 2012. In this change contained in Regulation of the Minister of Trade No. 58 / M-DAG / PER / 9/2012. This arrangement is intended to improve the basic price of people's salt. That the price of community salt at the level of collecting or collecting points, bulk conditions on a truck, which must be purchased by IP for KP1 of at least Rp 750 / Kg and KP2 of at least Rp 550 / Kg. In fact, in the context of providing price certainty, Law Number 9 Year 2006 and Law Number 9 Year 2011 concerning the Warehouse Receipt System have been issued. The issuance of this Act was also followed by the issuance of government regulation Number 36 Year 2007 concerning the implementation of the Warehouse Receipt System. Based on this regulation a new type of warehouse receipt was born in Indonesia, where warehouse receipts were not merely proof of ownership of goods stored in warehouses, but could function as securities that could be traded both domestically and internationally. Based on the regulation of the Minister of Trade No. 08 / M-DAG / PER / 02/2013 that one of the commodities that can be warehoused is salt. In line with the government's deregulation program, the provisions on salt import were renewed at the end of 2015 by issuing Minister of Trade Regulation Number 125 / MDAG / PER / 12/2015. However, the various policies outlined above do not support improvements in the performance of domestic salt, especially community salt. According to salt farmers, there are three fundamental changes in this policy that are different from the previous policy, namely: a. There is no obligation for IP to absorb people's salt with a percentage of 50% of total production; b. There is no government purchase price (HPP); and c. There is no period of time restrictions on imports (Fauzin, 2019).

The findings of this study are that the implementation of policies both published by the central government and those issued by the regions do not yet have a contribution to the welfare of salt farmers. Among the factors that influenced the policy at the time of its implementation were substantial contradictions between Law Number 7 of 2016 and several hierarchical lower regulations.

Other legal regulations which are based on pollution at sea, namely the Law of the Republic of Indonesia Number 32 Year 2009 concerning environmental protection and management, Law of the Republic of Indonesia No. 32 of 2014 concerning maritime affairs, government regulation of the Republic of Indonesia No. 101 of 2014 concerning B3 (Ingredients, Harmful, and Toxic).

The form of criminal liability for perpetrators of marine pollution for their legal entities is regulated in the Republic of Indonesia Law Number 32 Year 2009 article 88, while for individuals subject to article 99 paragraph 3, namely with a minimum criminal threat of 3 (three) years, a maximum of 9 (nine) years, a minimum fine of Rp. 3,000,000,000.00 (three billion rupiah) and at most Rp. 9,000,000,000.00 (nine billion rupiah).

To know a rule of criminal law has provided legal protection for victims or not, it can be seen from the rules regarding how the criminal sanctions is. While criminal sanctions are a

component of the criminal law of the entire criminal law system in addition to criminal acts and errors which are essentially criminal systems. According to Hulsman (2005) the sentencing system (the sentencing system) is "legislation relating to criminal sanctions and criminal sanctions" (the statutory rules relating to penal sanctions and punishment). Thus, regarding the form of legal protection for victims in abstract can be known from the formulation of his criminal acts, criminal liability and types of criminal sanctions. From the formulation regarding criminal acts, it can be known what acts are prohibited and threatened with criminal acts, then from those actions, it will be known what sanctions are threatened against the perpetrators. The form of the perpetrators' responsibility cannot be separated from the existence of mistakes or not from the perpetrators. For this reason, criminal sanctions are gradually undergoing renewal in order to provide protection to victims. Victims in this case are salt farmers who suffer losses due to sea water pollution. Additional sanctions for restitution or compensation also need to be applied to environmental laws, especially if the perpetrators of environmental crime are corporations. The law also includes the manner and amount of compensation in the explanation of the law. The environmental law, Law number 32 of 2009 has not provided legal protection to victims. In the UUPPLH, there are no rules regarding criminal sanctions that provide restorative legal protection for victims, existing sanctions are still in the form of prison penalties or fines.

Sanctions that do not satisfy the sense of justice and welfare have caused the harm of the perpetrator and the victim, both juridically, philosophically and sociologically. The juridical sanctions that do not realise the perpetrator's responsibility to the victim have spawned the absence of legal protection for the victim (DewiSetyowati, 2019).

Based on the results of the study, the authors suggest that in order to reduce the adverse effects experienced by salt farmers the government should formulate a policy that allows salt farmers to improve the quality of their human resources. And to provide salt farmers with protection from sea pollution, restorative sanction formulations are expected to be sought which are expected to be felt immediately by the victims because they are based on victim losses. As in the form of restitution, compensation or rehabilitation contained in environmental legislation, it is not limited to criminal sanctions and fines.

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### **Acts/Laws:**

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2. Undang-Undang Nomor 7 Tahun 2016 Tentang Perlindungan dan Pemberdayaan Nelayan, PembudiDayakan, Dan Petambak Garam
3. Peraturan Pemerintah Nomor 9 Tahun 2018 Tentang Tata Cara Pengendalian Impor Komoditas Perikanan Dan Komoditas Pergaraman Sebagai Bahan Baku Dan Bahan Penolong Industri
4. Peraturan Menteri Perdagangan Republik Indonesia Nomor 20/MDAG/Per/9/2005 Tentang Ketentuan Impor Garam
5. Peraturan Menteri Perindustrian Republik Indonesia Nomor 34 Tahun 2018 Tentang Tata Cara Pemberian Rekomendasi Impor Komoditas Pergaraman Sebagai Bahan Baku Dan Bahan Penolong Industri
6. Peraturan Menteri Kelautan Dan Perikanan Republik Indonesia Nomor 3/Permen-KP/2019 Tentang Partisipasi Masyarakat Dalam Penyelenggaraan Perlindungan Dan Pemberdayaan Nelayan, PembudiDayakan, Dan Petambak Garam
7. Undang-Undang Republik Indonesia Nomor 32 Tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup



8. Undang-Undang Republik Indonesia No. 32 Tahun 2014 tentang Kelautan
9. Peraturan Pemerintah Republik Indonesia No. 101 Tahun 2014 tentang B3 (Bahan, Berbahaya, dan Beracun).