

LEATHER TANNING INDUSTRY: PRODUCTION, POLLUTION, AND INTEGRATED ENVIRONMENTAL LAW

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Abstract

This study aims to look at the legal analysis of the production side of the leather tanning industry which results in environmental pollution, in the tanning stage using liquid waste containing various organic substances from raw materials and chemicals as processing materials. To produce a type of leather that is strong and resistant to environmental effects such as microbial degradation, heat, sweat, or water vapor and others, a process is carried out by adding acid, and salt, and then tanning with chromium salts. Leather that has gone through the tanning process becomes tanned leather, which is the raw material for the leather craft industry. However, tanning produces waste, namely liquid waste and solid waste. Liquid waste with high organic matter content, and various pollutants such as ~~sulfate~~sulphate, chromium, synthetic tannin, oil, and resin. Solid waste in the form of lumps of meat, fur, and fat is quite large. The production of the tannery industry that has an impact on environmental pollution from the perspective of the Law of the Republic of Indonesia Number 32 of 2009 concerning Environmental Protection and Management needs special attention. Besides having benefits, it also has negative things such as environmental pollution.

Keywords: Environment, Industry, Integrated environmental law, Leather Tanning, Waste.

1. Introduction

Preserving the environment with the concept of sustainable development, which is a development that aims to improve environmental quality, both for current and future generations. The environment needs to be maintained to support the implementation of sustainable development in all fields. Thus, development that does not pay attention to environmental aspects can harm society. For example, industrial companies dump waste into rivers without adequate follow-up [1-8].

However, environmental issues are also an important concern, with some of the problems arising from the exploitation of natural resources, industrial activities, businesses, and domestic waste. From these factors, industrial activities are considered the most dangerous because they contain toxic substances [9].

Included in the potential industrial sector is the leather tanning industry. The leather tanning industry is an industry that processes various kinds of raw leather, semi-finished leather (pixel leather, wet blue leather, crust leather) into finished leather [10].

The leather tanning industry is one of the industries that is encouraged to develop as a non-oil and gas foreign exchange earner. The production of the tannery industry that has an impact on environmental pollution from the perspective of the Law of the Republic of Indonesia Number 32 of 2009 concerning Environmental Protection and Management needs special attention. Besides having benefits, it also has negative things such as environmental pollution.

Based on our previous studies and research on leather tanning found by the author has not been the same research before, however, the author also needs to present some literature that can be a comparison in this paper, as for previous research that is a comparison is presented in Table 1 [11-15].

Table 1. Research on leather tanning found.

No.	Title	Ref.
1.	Environmental administration law enforcement against leather waste disposal pollution	[16]
2.	Leather tannery wastewater treatment with modified aeration technique	[17]
3.	Environmental law enforcement in civil and criminal terms based on law no. 32/2009 on environmental protection and management	[18]

The purpose of this research is to analyse and find alternative regulatory concepts in controlling the impact of environmental pollution from the production of the leather tanning industry in Law No. 32 of 2009, but in its implementation, there are still ~~weaknesses~~~~weaknesses~~, and it is not implemented optimally. This is caused by various factors, including the lack of awareness of industrial entrepreneurs who use processing materials with chemical and organic substances; legal awareness of the community in the maintenance and management of the environment; and the assertiveness of the government, especially law enforcement officials in imposing sanctions on industrial actors who violate environmental law.

Then an analysis is carried out with a novelty environmental law approach in the form of legal functionalization by applying a combination of state administrative, criminal, and civil law. Thus, to accommodate input in the form of alternative concepts in the form of integrated regulatory changes in environmental law

enforcement as a result of pollution by the tannery industry, which can be used to achieve benefits and reduce the impact of environmental damage.

2. Literature Review

The process of tanning animal skins can be divided generally into three stages (Figs. 1 and 2):

1. Pre-tanning. From the raw material of fresh animal skin, it is separated from fur, veins, and meat under the skin. Next is the preservation process, using chemicals and water in large quantities (namely acids, salts, and then tanning with chromium salts)
2. Tanning. This process uses wastewater containing various organic substances from raw materials and chemicals as processing agents used in the tanning process.
3. Post Tanning. Leather that has gone through the tanning process becomes tanned leather, which is the raw material for the leather craft industry.



Fig. 1. Animal skin tanning flow chart.

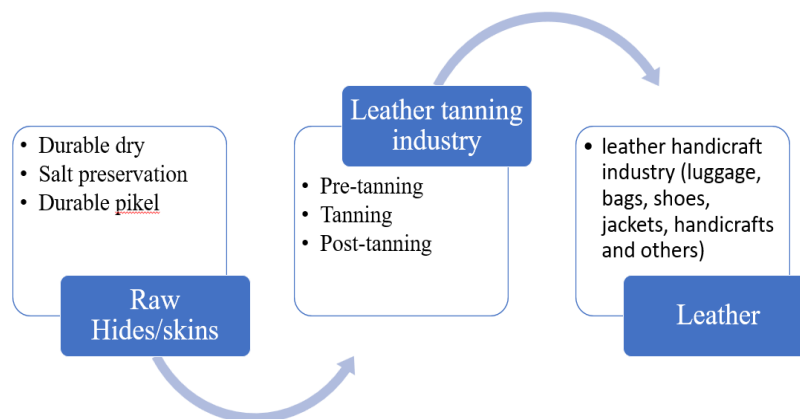


Fig 2. Flow chart of animal skin utilization.

Furthermore, this tannery is utilized for daily human needs such as luggage, bags, shoes, jackets, handicrafts, and others. However, on the positive side, there is also a negative side that needs to be considered. The production of tanned leather generates waste, namely liquid waste (producing a high content of organic matter, and various pollutants such as sulfatesulphate, chromium, synthetic tannin, oil, and resin) and solid waste (producing large lumps of meat, fur, and fat).

3. Method

Normative legal research, through inventory and review of various laws and regulations relating to the environment. With the rules when the implementing regulations below are made, he must not contradict the regulations above. The source of this research is secondary data, namely laws and regulations related to the object of research and also various references. The data analysis used is descriptive qualitative, it can be described between the normative provisions in environmental legislation with environmental law enforcement sanctions both administratively, criminally, and civilly. According to Martin Roestamy, normative juridical is a legal research method that focuses on the study of legal principles and principles. This thought cannot be denied that there is a touch of Mochtar Kusumaatmadja thoughts which conveys the law of development which focuses on principles, processes, rules, and institutions [19, 20].

4. Results and Discussion

In the Law of the Republic of Indonesia Number 32 of 2009 concerning environmental protection and management (UUPPLH), industrial waste can be divided into four parts including; liquid waste, solid waste gas waste, and B3 Waste. B3 waste is the residue of a business and/or activity that contains B3, which because of its nature, concentration, and amount directly or indirectly can pollute, damage, and endanger the environment, the health of human survival, and other living things. Waste is classified as B3 waste, that is, if it has certain properties including flammable materials, explosive materials, corrosive materials, oxidizing waste, infectious waste, and toxic or toxic materials [21].

Every business and/or activity that generates hazardous waste in obtaining a hazardous waste management permit must apply for a hazardous waste management permit for hazardous waste processing activities in writing by completing the requirements contained in article 113 paragraph 2 of PP No. 101/2014 concerning Hazardous and Toxic Waste Management. Some requirements include a copy of the environmental permit, documents regarding the name, source, characteristics, and amount of hazardous and toxic waste being processed, as well as documents regarding the place of storage of hazardous and toxic waste.

Before obtaining a hazardous waste management license for hazardous waste processing activities, all types of businesses and/or activities that cause pollution and/or damage to the environment must have an Amdal (EIA), as a basis for whether or not a business and/or activity is feasible to continue. Amdal is an environmental administrative requirement that is an integral part of the environmental licensing system. Environmental permits will not be granted without an environmental feasibility decision based on the results of an Amdal (EIA) assessment recommendation. EIA is a very important environmental policy instrument and also part of the licensing procedure. The EIA decision is a condition sine quanon for the issuance of permit decisions in the environmental sector [22].

A business and/or activity that is required to conduct Amdal is determined based on certain criteria stipulated in UUPPLH, namely: -Article 22 (2) Important impacts are determined based on the criteria:

- (i) the size of the population that will be affected by the business plan and/or activities;
- (ii) the area of impact distribution;
- (iii) the intensity and duration of the impact;
- (iv) the number of other environmental components that will be affected;
- (v) cumulative nature of the impact;
- (vi) reversing or not reversing the impact; and/or other criteria following the development of science and technology.

Legal actions taken by the Government against the processing of B3 Waste optimizing environmental law enforcement needs to be done, as well as laws that specifically regulate waste utilization. Need to support PP No. 101/2014 on Hazardous and Toxic Waste Management at the regional level with Regional Regulations. Processing can be in the form of state administrative law enforcement because its coercive nature is considered effective to be applied against violators compared to other laws [23].

State administrative law enforcement instruments include supervision and enforcement of sanctions. Supervision is a preventive measure to enforce compliance, while the application of sanctions is a repressive measure to enforce compliance. In other words, supervision is a preventive measure to prevent law violations, while the application of sanctions is a repressive measure to deal with law violations. In Criminal Law, the existence of an investigation, namely conducting an examination of the truth of reports or information regarding criminal acts in the field of environment with the object of environmental criminal offenders other than individuals, corporations, or other legal entities [24].

Requesting information and evidence from persons or legal entities in connection with criminal acts in the field of environment, conducting examinations of books, records, and other documents related to criminal acts in the field of environment, conducting examinations at certain places suspected of having evidence, books, records, and other documents and confiscating materials and goods resulting from violations that can be used as evidence in criminal cases in the field of environment, apart from investigations that are viewed from the criminal side there are also comprehensive criminal provisions. Meanwhile, in civil law in the form of compensation, responsibility by submitting to the perpetrator of environmental pollution [25-30]. Finally, this study adds new information as reported elsewhere [31-33].

5. Conclusion

Besides having benefits such as leather crafts that are utilized in everyday life such as suitcases, bags, shoes, jackets, handicrafts and others, the leather tanning industry production also has negative things such as environmental pollution in the form of liquid waste, and solid waste. Environmental pollution in the perspective of Law of the Republic of Indonesia Number 32 of 2009 concerning Environmental Protection and Management needs special attention law enforcement is integrated with the legal functionalization of a combination of state administrative, criminal, and civil law. In order to achieve legal certainty and deterrent effect for individuals/communities/corporations.

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