

## LEGAL CERTAINTY MODEL IN PALM OIL WASTE TREATMENT WITH THE STUFENBAU APPROACH OF HANS KELSEN'S THEORY

RIZAL SYAMSUL MA'ARIF<sup>1,2\*</sup>, MARTIN ROESTAMY<sup>1</sup>,  
NANANG SOLIHIN<sup>2</sup>, JAKA SANTOS<sup>1</sup>, SUDIMAN SIHOTANG<sup>1</sup>,  
JACOBUS JOPIE GILALO<sup>1</sup>, M AMINULLOH<sup>1</sup>, NOVEL ANAK LYNDON<sup>3</sup>

<sup>1</sup>Universitas Djuanda, Jl Tol Ciawi Nomor 1, 16720 Bogor Indonesia

<sup>2</sup>Universitas Islam As-Syafiiyah, Jl. Raya Jatiwaringin No.12, Jakarta Indonesia

<sup>3</sup>Universiti Kebangsaan Malaysia, Lingkungan Ilmu, 43600 Bangi, Selangor, Malaysia

\*Corresponding Author: rizal.syamsul.m@unida.ac.id

### Abstract

The purpose of this study is to find out and analyse and provide alternative solutions regarding the Legal Certainty Model in Palm Oil Waste Treatment with the Stufenbau Approach of Hans Kelsen Theory. The research method used is normative juridical, through the approach of legislation as a primary legal material combined with the doctrine of experts as a secondary legal material, especially the approach from Hans Kelsen related to the Stufenbau Theory related to the availability of regulations regarding the treatment of palm oil waste. The analysis technique used is to use qualitative techniques with deductive narratives, namely narratives from general to special. Thus, systematic and concrete conclusions are obtained. We seek to be able to provide a model concept from the objectives, namely with the result that based on the stufenbau theory of oil palm waste treatment, it must meet the elements of the availability of laws and regulations in a hierarchical manner from the top to the bottom rules. In fact, today the regulation has not been accommodated by the government, we found that the regulation on oil palm waste treatment is only limited to presidential instructions, ministerial decrees, and several regional regulations made by oil palm producing regions, this regional regulation can be used as a model for the formation of the same regional regulation to regions that have the potential to have oil palm plantations. However, it must also be noted that the regional regulation refers to the regulations it. Thus, the government needs to make rules the regional regulation to accommodate higher and stronger regulations.

Keywords: Legal certainty, palm oil, processing, stufenbau theory, waste.

## 1. Introduction

The model of legal certainty in oil palm waste treatment with the Stufenbau approach of Hans Kelsen's theory is currently based on the 1945 Constitution (called the 1945 Constitution) which says that the State of the Republic of Indonesia is a state of law as per the 1945 Constitution Article 1 paragraph (3). People live by the rules that have been made by the government as a representative of the country. Thus, the community has the right to a decent life, a clean environment, and clean air, and is free from forms of pollution caused by business activities [1]. One of the regulations that regulates the fulfillment and protection of environmental rights as part of human rights is Law Number 32 of 2004 concerning Environmental Protection and Management (called the PPLH Law). In this regulation, everyone in Indonesia is obliged to protect the environment from being damaged, to protect the environment from being polluted if these two things happen, the implication is that they must compensate the sufferers whose rights are violated [2]. Furthermore, regarding oil palm the object of this research is an industrial plant that is useful for producing a product, namely cooking oil, oil for industry, and also fuel. The oil palm itself has different types, at least classified into 2 types of oil palm, the first of which is called *Elaeis guinensis* and *Elaeis Oliefera* [3].

Both function and are commonly used in commercial agriculture in producing oil palm. Juridically, plantations in Indonesia are regulated through Law Number 39 of 2014 concerning Plantations (called the Plantation Law) which says that an oil palm plantation company must also be a legal entity that is oriented to business based on Indonesia law, the existence of its office is in Indonesia territory, and in carrying out its activities is limited by business time, Indonesia regulations stipulate that plantation companies will be given the Right to Use Business (called HGU) which run for 25 years and can be extended for 20 years [4]. At least plantation companies in their goals must be oriented towards increasing state revenue, increasing people's income, increasing state foreign exchange, creating jobs for the community, increasing productivity, especially in the plantation sector, and also fulfilling national raw materials, namely cooking oil [5]. We found that the purpose of the Plantation Law is not to say that plantations must preserve the environment from what they have produced, thus the current legal problem has not been accommodated by clear rules regarding the green economy, namely the processing of palm oil waste in existing regulations.

Research on the Legal Certainty Model in Palm Oil Waste Treatment with the Stufenbau Approach of Hans Kelsen's Theory was found, there has not been the same research before, but it is necessary also to present some literature that can be compared in this paper. Table 1 shows current research relating to palm oil.

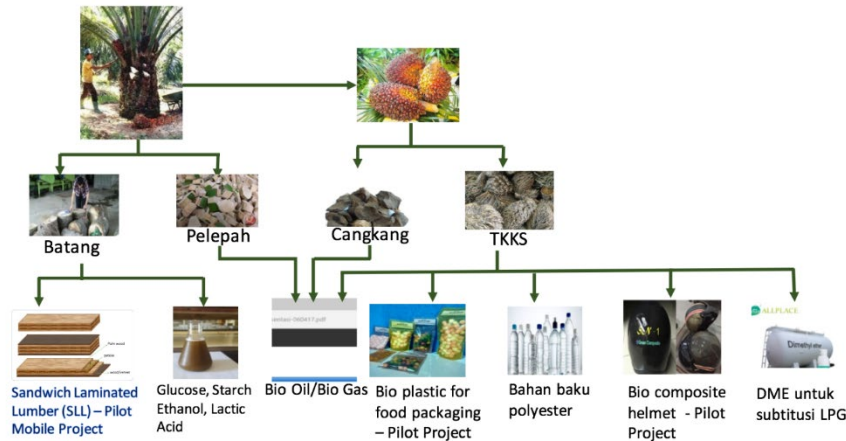
**Table 1. Previous research.**

No.	Title	Ref.
1.	Oil palm empty fruit bunch waste pretreatment with benzotriazolium-based ionic liquids for cellulose conversion to glucose: Experiments with computational bibliometric analysis	[6]
2.	Cost, emission, and thermo-physical determination of heterogeneous biodiesel from palm kernel shell oil: Optimization of tropical egg shell catalyst	[7]
3.	Bifunctional CaCO <sub>3</sub> /HY catalyst in the simultaneous cracking-deoxygenation of palm oil to diesel-range hydrocarbons	[8]
4.	Potential alternative energy of hybrid coal from co-pyrolysis of lignite with palm empty fruit bunch and the kinetic study	[9]
5.	Sugarcane bagasse biochar as a solid catalyst: From literature review of heterogeneous catalysts for esterifications to the experiments for biodiesel synthesis from palm oil industry waste residue	[10]
6.	Type of supervision of local entrepreneurs in management of temporary storage of hazardous and toxic waste (LB3) in the tanah bumbu district environmental service	[11]
7.	Characterization and potential utilization of palm oil waste	[12]

The purpose of this study is to seek knowledge about palm oil waste treatment. Then, an analysis is carried out with a legal certainty approach from Hans Kelsen to produce a novelty in the form of a model or concept of the availability of legal regulations regarding palm oil waste treatment in a hierarchy of laws and regulations, also called Stufenbau theory [13]. Hans Kelsen said that a norm must be formed with applicable law to accommodate the availability of rules with legal certainty. Thus, the processing of palm oil waste, which currently does not have a state obligation to companies, is consequently in waste treatment. In addition to being economically beneficial, it will reduce the impact of environmental damage. The novelties of this study is to produce a legal solution in the form of regional regulations for policy makers to be implemented by palm oil companies to maximize the application of palm oil waste processing recycling technology. If each region has legal rules for palm oil processing, then inevitably all companies must carry out the mandate of the regulation.

## 2. Literature Review

Stufenbau's theory is the theory used in this study, namely from a legal positivist thinker, namely Hans Kelsen. According to him, the legal system is a ladder system with tiered rules, where the lowest legal norm must adhere to the highest legal norm, and the position of the highest legal rule (in Indonesia called the 1945 Constitution) must be able to hold on to the basic norm (or called grundnorm) in life in Indonesia, this grundnorm is Pancasila [14]. Based on the object of research conducted on palm oil waste treatment, all parts of palm oil are useful, including waste products produced in CPO production [15]. This is presented in Fig. 1.



**Fig 1. Utilization of palm oil waste.**

Based on the image above, it can be described as follows four waste products, namely shells, coconut fiber, empty baskets, and liquid waste (pome) [16]. For clams and coconut fibers, it is useful as boiler fuel in oil palm mills. For empty Janjang, the liquid waste that has been treated is used for the production of organic fertilizer for plantations. For liquid waste (pefiles) that are treated in wastewater treatment institutions to reduce acidity levels, biological oxygen needs (BOD) and chemical oxygen needs (COD). Thus, they can be safely applied as fertilizers. Liquid waste can also be treated using methane capture methods to convert biogas as an energy source [17]. At the time of replanting, old tree trunks and oil palm leaves are cut or pruned and then placed in a hole that has been prepared in the soil to be processed into organic fertilizer. This litter (organic waste) can also help maintain soil moisture [18].

### 3. Method

This research used normative juridical. Normative juridical is a legal research method method that studies legal principles and rules [19]. Normative juridical research also focused applying positive legal norms (also understood in a small scope that positive norms are laws and regulations), which are the primary legal materials in this research. In addition, we used secondary legal materials that are supporting materials from the primary to examine the gap between the Sollen watershed and the Sein watershed [20].

### 4. Results and Discussion

In the processing process, this palm oil can cause environmental damage if not utilized with current technology. One of the environmental damages that occurs is by neglecting good and sustainable waste management. This palm oil waste is the residue from the production of unused palm kernel crops, which is in the form of solid waste and also liquid waste [21]. Based on the flow chart quoted from Sinarmas Agriculture and Food, palm oil waste can be recycled into useful things, the following is presented in Fig. 2.

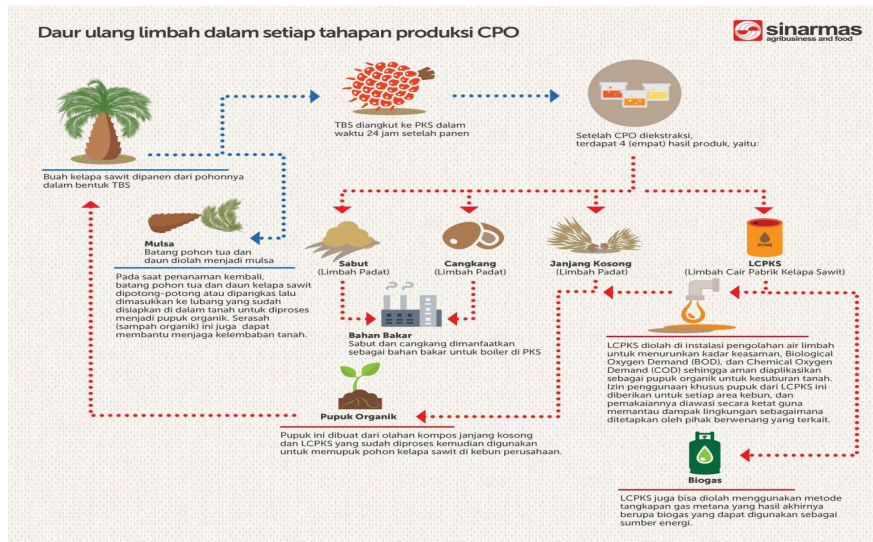


Fig. 2. Waste recycling at every stage of CPO production.

Based on the image above, it is known that the groove for the use of oil palm fruits harvested from trees is called Fresh Fruit Bunches (FFB). *The first* relates to empty oil palm bunches (TKKS). This waste can be produced from clusters, namely FFB that has matured and bears fruit regardless of the cluster while still in the garden, the condition of the cluster is dry and in the oil palm processing plant it is the result of sterilization and threshing treatment with wet clusters. *The second* is the shell. The shell is a waste product of the transformation of kernel palm kernel into the shape of a coconut shell, having a calorific value of 3500 kcal/kg-4100 kcal/kg. *Third*, fiber is a waste product left over from FFB compression in the form of fibers such as yarn. This ingredient contains about 4% crude protein and 36% crude fiber (26% lignin) and has a calorie range of 2637/kcal/kg-3998 kcal/kg. *The fourth* is the wet decanter solid. In the palm oil (CPO) processing process, a lot of liquid waste is produced, which is around 2.5 m<sup>3</sup>/ton of CPO produced. This waste contains very high pollutants, namely the biochemical amount of oxygen (BOD) of around 20,000 to 60,000 mg/l. *The fifth* is liquid waste. Almost all wastewater from oil palm plants (PKS) contains organic matter that can cause deterioration in water quality and sedimentation. Palm oil waste in the form of dry waste consisting of TKKS, shells, and fiber as a whole can be used as something more useful, namely as renewable energy such as bioethanol, biodiesel, and as fuel for biomass power plants (PLTB) [22]. Based on the legislative approach, government has paid attention to the potential of palm oil waste processing, namely during the time of President SBY by issuing Presidential Instruction Number 1 of 2006 concerning the Supply and Use of Biofuels as Other Fuels. According to him, BBN has several advantages over fossil fuels, including biofuels that are more environmentally friendly, non-polluting, cheap, and renewable. With this attention, the government has taken concrete steps towards the implementation of the green economy in the plantation sector. However, this is not enough to provide legal certainty to oil palm plantation companies to implement regulations in full and consequentially. Hans Kelsen emphasized that a norm must be written into laws and regulations to avoid social factors that according to him invite ambiguity in the implementation of the rule [23]. Thus, the government should be more serious about regulating this

matter. Thus, oil palm plantation companies inevitably carry it out. Based on this, we formulated a theoretical Stufenbau model. Thus, the treatment of palm oil waste is more legally certain. The model is presented in the form of Fig. 3.



**Fig. 3. Legal certainty model in palm oil waste treatment with Hans Kelsen's stufenbau approach theory**

Currently, the laws that accommodate plantation regulations are the Ciptaker Law, and the Plantation Law, while specifically environmental protection is in the PPLH Law, but the laws that regulate the use of plantation waste itself have not been regulated separately or have not been inserted into existing regulations [24]. This results in the absence of a mandate reference in the establishment of palm oil waste management for the regulations under it. Furthermore, the government regulation has also not accommodated the rules on oil palm plantation waste management, but if you look at the implementation of the government, namely the ministry, this has been regulated in the Indonesian Ministerial Decree LH 29/2023, it is not strong enough to regulate the practice of oil palm waste management in government regulations which will then become a reference for the formation of regional regulations for areas that have the potential for oil palm plantations [25]. Furthermore, at the level of regional regulations, the rules governing the management of oil palm waste already exist that regulate the West Kutai area, with Regional Regulation 17/2019. This can be used as a model for the formation of regional regulations for other regions that have the potential for oil palm plantations. However, it needs to be considered in consideration considering that there is no above rule as a reference in this regional regulation. Thus, with a Stufenbau approach, this tiered norm theory must be fulfilled by being interconnected. Hans Kelsen added that when the implementing regulations below are made, he must not contradict the regulations above. If the regulations below already exist but the regulations above have not been regulated, then there is a legal decision.

## 5. Conclusion

Based on the results of the discussion above, we can formulate the following research conclusions. The model of legal certainty that can be applied is the fulfillment of rules in stages (or hierarchies) of the government and legislative

members to be able to accommodate the utilization of palm oil waste by recycling this waste processing into the applicable laws and regulations, namely in the short term in the form of government regulations, and in the long term in the form of laws. Thus, oil palm plantation companies inevitably must implement the rules, and the regions regulate it as an executor. The impact is to minimize the effects of environmental damage due to waste that the company does not correctly treat.

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