Policy Paper

Implementation and Regulation of Ecological Losses Valuation in the Calculation of State Losses in Corruption Cases in the Extractive Industries Sector

Indonesia Corruption Watch

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Table of Contents

Table of Contents 01

List of Tables 03

Chapter I - Introduction 04

I. Background 05

II. Problem Formulation 07

III. Research Objectives 08

IV. Research Method 08

Chapter II - Development of the Concept of Calculating State Losses and the Ideal Application of Recovery of State Losses in Corruption Cases 10

I. The Concept of Social Losses in Corruption Cases 11

II. Ecological Losses in Corruption Cases 15

III. Mechanism for Implementing the Money Laundering Crime Law 22

a. The Concept of the Crime of Money Laundering in General 22

b. The Concept of the Crime of Money Laundering in Corruption Cases in the Environmental Sector 28

c. Application of the Money Laundering Law to Corruption in the Environmental Sector 32

IV. The Relevance of Asset Recovery Efforts in Environmental Damage 38

Chapter III - Challenges of Law Enforcement in Corruption Cases in the Natural Resources Sector 45

I. Normative Concept of State Losses Arising Due to Exploitation of Natural Resources or the Environment 46

II. Orientation of the Law Enforcement in Handling Corruption Cases in the Natural Resources Sector 55

Chapter IV - Actualization of Ecological Loss Aspects as Calculation of State Losses in Corruption Cases 58

I. Expanding the Meaning of State Losses in Ecological Damage After Constitutional Court Decision 25/PUU/XIV/2016 60

II. Methods of Proving Ecological Losses in Calculating State Losses in a Number of Cases of Corruption in the Natural Resources Sector 63

III. Variables in Developing Methods for Calculating State Losses in Natural Resources Corruption Cases 68

a. State Financial Losses and Environmental Damage 68

b. Environmental Loss Variables and Use of Scientific Evidence 71

c. State Financial Losses in Corruption of Natural Resources Extraction 77

Chapter V - Epilogue 80

I. Conclusions 81

II. Recommendations 82

Bibliography 83

List of Tables

Table 1. Types of Natural Resource Ownership Regimes **17**

Table 2. Corruption Cases Resulting in State Losses from the Environmental/Natural Resources Sector **26**

Table 3. Stages of Natural Resources and Environmental Damage Assessment Based on CERLA and OPA **67**

I

Introduction

Background

In principle, the natural resources of a country can be considered as an important capital in sustainable development efforts. However, the abundance of natural resources, in general, is also often associated with problems of poor governance, leading to increased rates of corruption. As a result, in many countries, especially developing countries like Indonesia, despite the wealth of natural resources, the level of economic growth tends to stagnate and poverty rate tends to be high.

This condition is certainly inseparable from the rent-seeking phenomenon that arises from political-business relations and conflicts of interest among public officials to reap profits from natural resource management, one of which is in the coal extractive sector. This certainly deviates from the constitutional mandate which emphasizes that the earth, water and natural resources contained therein are controlled by the state for the greatest prosperity of the people.[1] Thus, the principles of natural resource management should be oriented towards efforts to improve the welfare of society, not serving the interests of certain groups.

At the same time, the natural resources sector, especially mining, is often considered as one that is particularly vulnerable of becoming a hotbed for corruption. Corrupt practices in the extractive mining sector can occur in almost every step in the process of business activities, starting from granting land use permits, implementing exploitation activities, paying tax and royalty (DHPB, *Dana Hasil Produksi Batu Bara*) obligations, non-tax state revenues (PNBP, *Penerimaan Negara Bukan Pajak*) from export sales of production results, to allocating post-mining reclamation guarantee funds.[2]

Such an argument is strengthened through the report on the results of the sectoral risk assessment of the Crime of Money Laundering resulting from the Crime of Corruption issued by the Corruption Eradication Commission, Attorney General's Office, Police, Supreme Court, Presidential Staff Office, and the Financial Transaction Reports and Analysis Center (PPATK) in 2022. The report states that the environmental, oil and gas, and mineral and mining sectors are strategic sectors that are vulnerable to corruption.[3]

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1 See the provisions of Article 33 paragraph (3) of the 1945 Constitution of the Republic of Indonesia

2 Pusat Studi Hukum Energi dan Pertambangan, "Praktek Korupsi di Sektor Pertambangan", https://pushep.or.id/praktek-korupsi-di-sektor-pertambangan/, accessed on September 25, 2023

3 Supreme Court, Corruption Eradication Commission, Attorney General of the Republic of Indonesia, Bareskrim Polri, Ministry of Law and Human Rights, Presidential Staff Office, and PPATK, *"Penilaian Risiko Sektoral Tindak Pidana Pencucian Uang Hasil Tindak Pidana Korupsi,"* Published in 2022, pp. 51-53.

Specifically related to minerals and mining, it was stated that one of the factors causing vulnerability to corruption in this sector is the lack of regulations restricting cash transactions, ineffective asset confiscation, and other factors such as the mining mafia which exists in all levels from licensing to exploitation.[4]

Another emerging issue is the law enforcement paradigm in corruption cases intersecting with the environment and mining sectors, which is not yet oriented towards a spirit of restoration of the resulting ecological losses. In fact, corrupt practices in the extractive sector not only cause losses due to a lack of government revenue from natural resources. More than that, exploitation of natural resources on a large scale and in a long term also has an impact on environmental damage.

Although in recent years, law enforcement officials, especially the Prosecutor's Office, have made breakthroughs by including the element of ecological loss in calculating state economic losses, this step has unfortunately often been annulled by the courts. Looking closely, the problem lies in Constitutional Court Decision 25/PUU/XIV/2016. In essence, the decision reviewing the provisions in Article 2 paragraph (1) of the Corruption Crime Law (UUTPK), deletes the word "could" before the phrase "harm state finances". This is then interpreted to mean that state losses must have actually occurred (actual loss), and not something that has yet to happen (potential loss).

As a result, a number of natural resource corruption cases, such as the crude palm oil (CPO) export corruption case, which caused losses to the country's economy amounting to IDR 10.9 trillion,[5] and the Surya Darma Group plantation business permit corruption case in Indragiri Hulu District, Riau, with defendant Surya Darmadi, who caused IDR 39.7 trillion of losses to the country's economy,[6] was reversed by the panel of judges. Although in the Surya Darmadi corruption case, the Public Prosecutor's demands were accepted by the court at the first level, up to the appeal level, at the cassation level, the Supreme Court annulled the calculation of state economic losses based on considerations of Constitutional Court Decision 25/PUU/XIV/2016.[7]

Apart from hampering law enforcement efforts in corruption cases, this condition also causes irreversible damage to the environment exploited due to corrupt practices, which is also closely tied to the absence of a deterrent effect on perpetrators. In the future, it is not impossible that corruption cases intersecting with natural resources will increase. In fact, according to Rimawan Pradiptyo, the effort to provide an optimum deterrent effect for perpetrators of corruption is to increase the expected cost of corruption, because the value of the financial penalty is much lower than the amount taken through corruption,

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4 *Ibid.*

5 Syakirun Ni'am, "Hakim Sebut Kerugian Negara Rp10,9 T dalam Korupsi Ekspor CPO Tak Nyata", accessed from https://nasional.kompas.com/read/2023/01/05/05285971/hakim-sebut-kerugian-negara-rp-109-t-dalam-korupsi-ekspor-cpo-tak-nyata?page=all

6 Syakirun Ni'am, "Surya Darmadi Dinilai Terbukti Rugikan Perekonomian Negara Rp39,7 Triliun", Kompas.com, accessed from https://nasional.kompas.com/read/2023/02/24/09565111/surya-darmadi-dinilai-terbukti-rugikan-perekonomian-negara-rp-397-triliun

7 Decision 4950K/Pid.Sus/2023, pp. 194-195

causing the ill-gotten money not to be returned to the state in full.[8] This means that there must be encouragement for law enforcement and judicial institutions to transform the practice of calculating state losses in criminal acts of corruption.

Therefore, this shows that the eradication of corruption, especially in the natural resources sector such as the extractive industry or the environment, in general, remains a serious problem that law enforcement has not been able to resolve optimally. Regarding this problem, ICW together with two experts, namely Dr. Totok Dwi Diantoro, SH, MA, and Roni Saputra, SH, MH, initiated the preparation of this policy paper. This study attempts to elaborate on the implementation and potential for evaluating ecological losses that occur due to corruption cases in the natural resources sector as a calculation of state losses as an effort to restore the environment.

Problem Formulation

Based on the background description, there are two key questions to be answered in this policy paper, namely:

01 Can ecological losses be included as part of loss calculations?

02 How can actualization in the context of proving ecological losses resulting from criminal acts of corruption be qualified as state losses?

8 Rimawan Pradiptyo, *Modul Integritas Bisnis: Dampak Sosial Korupsi*, Directorate of Education and Community Services, Corruption Eradication Commission (Jakarta: 2016) p.

Research Objectives

In general, there are three objectives in preparing this policy paper:

1. Giving a general description of law enforcement practices in corruption cases in the natural resources or environmental sector that cause ecological losses;
2. Providing an analysis of the potential for taking into account the ecological loss component as part of the valuation of state losses in corruption cases in the natural resources or environmental sector; and
3. Providing recommendations in the form of technical policies to law enforcement officials and related stakeholders to strengthen law enforcement efforts in corruption cases in the natural resources or environmental sector

Research Method

The research method used in writing this policy paper is the qualitative research method. Conceptually, qualitative research is carried out by analyzing data by narrating the data that has been obtained properly, so that it becomes a valuable research result.[9] Meanwhile, there are three approaches used in writing this policy paper, namely the statute approach, the case approach and the conceptual approach.

The Statute Approach is used to examine regulations or laws that are relevant to the topic in this research. The regulations that will be used as a basis are regulations that concern natural resource issues, for example in environmental crimes which usually refer to Minister of the Environment and Forestry Regulation 7/2014 concerning Environmental Losses Due to Environmental Pollution and/or Damage (Permen LHK 7/2014). Apart from that, in the context of law enforcement, we will also examine Law 31/1999 as amended into Law 20/2001 concerning the Eradication of the Crime of Corruption. Apart from that, it is also important to study the application of money laundering instruments regulated in Law 8/2010, about which money laundering is a follow-up crime to the

9 M. Rijal Fadli, 2021. "Memahami Desain Metode Penelitian Kualitatif". Humanika, Kajian Ilmiah Mata Kuliah Umum, Vol. 2, No. 1 (2021) p. 35

crime of corruption.

Meanwhile, the case approach used in this research is based on *ratio decidendi*, namely the legal reasoning used by judges to arrive at their decisions in a number of corruption cases in the natural resources sector, to observe the underlying material facts.[10] Finally, the conceptual approach is used to look at a number of opinions and doctrines, not only in the field of legal science, but also knowledge in other fields relevant to this issue, such as the perspectives of economics and environmental science.[11]

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10 McLeod, T. I, *Legal theory.* Houndmills, Basingstoke, Hampshire; New York: Palgrave Macmillan (1999). p. 144

11 Marzuki, 2006. *Penelitian Hukum*, Kencana, Jakarta, p. 93.

II

Development of the Concept of Calculating State Losses and the Ideal Application of Recovery of State Losses in Corruption Cases

The Concept of Social Losses in Corruption Cases

Corruption is a complex phenomenon that has a very broad impact and causes extraordinary damage to the life of society and the state. For example, Sudan, a country rich in gold mining products that was ravaged by corruption, as well as Somalia, a country rich in natural resources and livestock as export commodities, which was devastated by corruption.[12] It is undeniable that such damage to countries is not due to the single factor of corruption, but corruption does play an instrumental role in causing damage, especially in important sectors, either economic, political, social or cultural. It is thus appropriate if corruption is categorized as an extraordinary crime.[13]

The KPK identified at least five impacts of corruption that are felt in the economic sector, namely corruption slowing down economic growth, reducing investment levels, reducing the quality of facilities and infrastructure, creating income inequality, decreasing economic income from the tax sector, increasing state debt, and creating impoverishment.[14] The impacts of corruption in the political and democratic sector at least give rise to corrupt leadership, loss of public trust in democracy, strengthening plutocracy (a political system

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12 Erlina F. Santika, 'Negara Terindikasi Paling Korup di Dunia 2023, full list in https://databoks.katadata.co.id/datapublish/2024/02/01/negara-terindikasi-paling-korup-di-dunia-2023-somalia-tetap-pertama

13 The Corruption Eradication Commission (KPK) categorizes corruption as an extraordinary crime because of its very destructive nature, parallel to terrorism and narcotics abuse. Furthermore, the KPK also stated that corruption is parallel to extraordinary crimes in the Rome Statute, namely the crime of genocide, crimes against humanity and crimes of aggression. The reason is that the destructive power of corruption is large, the losses incurred are massive, and carried out systemically, with high complexity and planned by state officials. see https://aclc.kpk.go.id/aksi-informasi/Eksplorasi/20230209-ini-alasan-mengapa-korupsi-disebut-kejahatan-luar-biasa#. The same was also expressed by Artidjo Alkostar in his paper "Korupsi sebagai Extra Ordinary Crime" https://pusham.uii.ac.id/wp-content/uploads/2023/05/Korupsi_Sebagai_Extra_Ordinary_Crime.pdf. Elwi Danil in his dissertation entitled "Fungsionalisasi Hukum dalam Penanggulangan Tindak Pidana Korupsi: Studi tentang Urgensi Pembaharuan Hukum Pidana Terhadap Tindak Pidana Korupsi di Indonesia," Faculty of Law, University of Indonesia, 2001, stated the establishment of Law 31/1999 as a replacement for Law 3/1971 can be used as a starting point for making improvements to the legal system. The Corruption Law not only fulfills the characteristics of a special criminal legislation; but also as a special criminal Law because corruption is a special act (*bijzonderlijk feiten*). Corruption is classified as "extraordinary crime" so that to eradicate it requires "extraordinary instruments".

14 ACLC, "Kupas Tuntas 5 Dampak Buruk Korupsi Terhadap Perekonomian Negara "https://aclc.kpk.go.id/aksi-informasi/Eksplorasi/20230113-kupas-tuntas-5-dampak-buruk-korupsi-terhadap-perekonomian-negara" accessed November 1, 2023.

controlled by capital owners/capitalists), and even the loss of people's sovereignty.[15] The social impacts of corruption include slow public services, limited access for the poor, a tendency of crime to increase, lack of solidarity, dying bureaucratic ethics, inefficient bureaucracy, and ineffective laws and regulations.[16]

Kurniadi (2011) stated that fundamentally corrupt practices create a condition of high cost economic life. This happens because there are burdens that must be borne by economic actors due to corruption.[17] These burdens are accumulated by economic actors in the prices of goods, services or public services. As a result, people have to pay many times more money to receive goods, services or public services.

The above impacts of corruption clearly result in large costs borne by society, business actors and the state. The society bears the heaviest burden of losses, as they should enjoy prosperity, not instead be burdened with high cost economic conditions. Business actors inevitably have to increase the prices of goods, because production costs are high. Meanwhile, the state must bear the burden of preventing and overcoming the crime of corruption. These costs are part of the social costs of corruption.

Calculating the social costs of corruption can actually utilize a social accounting of crime approach (at least there are currently studies on this matter). In Australia, the United Kingdom, the USA and the Netherlands, they estimate the values of crime prevention and crime eradication performance to measure the social costs of crime.[18]

Cohen (2000)[19] classifies the costs of crime in the form of tangible and intangible costs, with direct and indirect calculation methods. Tangible costs take the form of:

a) financial losses including losses suffered by the victim, such as loss of property, medical costs, and loss of income. These losses also include losses suffered by the community, such as law enforcement costs.

b) property damage including physical damage to property such as homes, cars and businesses. This damage can cause financial losses for victims and society.

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15 Nurhaeni, Dampak Korupsi Terhadap Politik dan Demokrasi di Indonesia, https://osf.io/8wsz3/download/?format=pdf accessed November 1, 2023.

16 Engkus, et al., 'Dampak Masif Korupsi Terkait Dengan Penyalahgunaan Anggaran di Masa Pandemi Covid-19', Dinamika: **Jurnal Ilmu Administrasi Negara**, e-ISSN 2614-2945, Vol. 9 No. 1, April 2022, pp. 38-50.

17 Wilhelmus, Ola Rongan. 'Korupsi: Teori, Faktor Penyebab, Dampak, dan Penanganannya'. **Jurnal Pendidikan Agama Katolik** Vol.17, Year 9, April 2017. p. 37.

18 Miller, Ted R., Mark A. Cohen, and Brian Wiersema. 1996. *Victim costs and consequences: A new look*. Research Report. NCJ 155282. Washington, D.C.: U.S. Department of Justice, National Institute of Justice, see further https://www.ojp.gov/pdffiles/victcost.pdf, and Harries, R. (1999) 'The Cost of Criminal Justice'. Home Office Research Findings No. 103. London: Home Office. See further https://www.researchgate.net/publication/291832935_The_Cost_of_Criminal_Justice_Home_Office_Research_Findings_No_103, and Walker, J. (1997) 'Estimates of the Costs of Crime in Australia in 1996'. Trends and Issues in Crime and Criminal Justice No. 72. Canberra: Australian Institute of Criminology. See further https://www.aic.gov.au/sites/default/files/2020-05/tandi072.pdf

19 Mark A. Cohen, 2000, 'Measuring the costs and benefits of crime and justice', Criminal Justice 4, 263-315, see further https://www.ncjrs.gov/criminal_justice2000/vol_4/04f.pdf

Intangible costs refer to items whose value does not exist in the market, such as fear and anxiety (crime can make people feel afraid and anxious, and affect people's quality of life and productivity.

The direct calculation method comes from victim confessions or law enforcement budgets, while the indirect method uses secondary sources such as the value of goods or court decisions.[20] The concept of costs explained by Cohen (2000), if compared to the concept of loss in Indonesian law, is similar to the concept of material and immaterial losses.

It is important to note that Cohen focuses not only on the social costs of crime, but also on the benefits of preventing crime. He argued that preventing crime could save society money and improve quality of life.

Following Cohen's concept above, tangible costs are material losses that are actually experienced and can be calculated in terms of money so that when material demands are granted in the judge's decision, the assessment is carried out objectively. Examples include costs for medical treatment and vehicle repairs in traffic accidents and so on. Meanwhile, intangible costs are immaterial losses, which according to legal terminology are defined as "unprovable" so that immaterial losses are those suffered as a result of unlawful acts that cannot be proven, recovered and/or cause a temporary loss of enjoyment of life, fear, pain and shock, so these cannot be given a monetary value.[21]

The problem is where the social costs of corruption will be placed, whether in material losses or immaterial losses? Can the social costs of corruption be categorized as state financial losses? To answer these two questions, it is necessary to first comprehensively formulate what can be categorized as the social costs of corruption.

Brand and Price (2000) divided the social costs of crime into three forms, namely the costs of anticipating crime, the costs caused by crime, and the costs of preventing crime.[22] Calculating the social costs of crime is important because these costs are a burden that must be borne by taxpayers, crime victims and the government.

Referring to the concept of social costs of crime, it can be concluded that these costs not only include losses experienced by the government, but also include those experienced by society (households) and the business sector. Crimes, especially economic crimes, significantly reduce the multiplier effect of the economy and worsens income inequality, thus becoming a burden for all elements of the nation.

The cost burden caused by crime is an analysis to calculate the social costs of corruption

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20 Aida Ratna Zulaiha dan Sari Anggraeni, 2018, Menetapkan Biaya Sosial Korupsi Sebagai Hukuman Financial dalam Kasus Korupsi Kehutanan', **Integritas: Jurnal Antikorupsi**, 2(1), 1-24.

21 Riki Perdana Raya Wawuru, 'Perluasan Ruang Lingkup Kerugian Immateriil', https://kepaniteraan.mahkamahagung.go.id/index.php/peraturan/6-artikel/artikel-hakim-agung/1458-perluasan-ruang-lingkup-kerugian-immateriil, accessed on November 1, 2023.

22 Sam Brand and Richard Price, 2000, 'The Economic Cost of Crime', Home Office Research Study 217, London, pp. 20-26.

using the economic cost and opportunity cost approaches. In KPK's formulation, the social costs of corruption are divided into two forms, namely the explicit costs of corruption and the implicit costs of corruption.

Ratna Zulaiha and Sari Anggraeni (2018) stated that explicit costs are real costs incurred for anticipation costs, reaction costs and costs resulting from corruption crimes. These costs can be calculated directly. The calculation of explicit costs is limited to costs incurred from the state budget - although it is possible that they come from outside the state budget. Corruption anticipation costs are costs incurred for activities to prevent the occurrence of criminal acts of corruption. Reaction/response costs are all the resources required by law enforcement officials to process someone who commits corruption, starting from the stage of investigation, inquiry, prosecution, trial, asset confiscation, execution until completion of the verdict. The costs resulting from crime can be the result of corruption or state financial losses, the value of which has been calculated by an authorized institution.[23]

Implicit costs are costs that are not immediately visible, such as opportunity costs, and damage costs (consequences) whose impact is felt through the market. Implicit costs are calculated using the lowest estimate (minimum irreducible approach) of corruption incidents/crimes.[24] Opportunity costs from acts of corruption are found in the form of state economic losses and increased costs due to the impacts resulting from acts of corruption such as diversion of productive resources, the emergence of additional costs, non-utilization of corrupted resources, and costs that cannot be proven by financial transactions (loss of forest area, and loss of ecological function) or what can be called social costs.

While the concept of social costs of corruption formulated by the Corruption Eradication Commission is still debatable, especially regarding how the concept of explicit costs is elaborated, the actual social losses from corruption cannot be measured only by how much funds are lost through corruption, or how much public funds are diverted. These also include loss of output due to misallocation of resources, distortion of incentives and other inefficiencies caused by corruption. Corruption can also have a negative impact on income distribution and neglect of environmental protection. Most importantly, corruption undermines trust in legitimate institutions, reducing their ability to provide adequate public services and an enabling environment.[25]

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23 According to Rimawan Pradiptyo, in the cases handled by the Prosecutor's Office, social costs have been used but only explicit and implicit costs due to corruption are calculated. Anticipatory costs and editorial costs are not taken into account, Comment dated March 6, 2024.

24 Aida Ratna Zulaiha and Sari Anggraeni, *op.cit.*

25 https://www.oecd.org/g20/topics/anti-corruption/Issue-Paper-Corruption-and-Economic-Growth.pdf

Ecological Losses in Corruption Cases

Ecological losses or environmental losses, under Law 32/2009 concerning Environmental Protection and Management (PPLH Law 32/2009), is defined as "losses arising from environmental pollution and/or damage which are not under private property ownership rights."[26] This definition shows two components of the understanding of ecological loss. First, the loss occurs as a result of environmental pollution and/or damage. And second, the polluted and/or damaged environment is found in the public domain. This is to emphasize that the settlement of compensation for environmental damage - related to the status of ownership of natural resources with the state - must be resolved through a public settlement.

In the event that the environment is polluted or damaged, PPLH Law 32/2009 emphasizes the existence of parameters to determine this. It is stated that pollution has occurred when a person (legal subject) in his activities exposes environmental media to components of living things, substances, energy and/or other components, thereby exceeding the established environmental quality standards.[27] Similarly, environmental damage is considered to have occurred when there are direct and/or indirect changes to the physical, chemical and/or biological characteristics of the environment that exceed the standard criteria for environmental damage.[28]

Quality standards or criteria for environmental damage formulated in terms of pollution and environmental damage, are fundamentally measures to make it easier to determine whether environmental problems have arisen. What is meant by environmental quality standards are measurements of the limits or levels of living things, substances, energy, or components that exist or must exist and/or pollutant elements whose existence is tolerated in a particular resource as an element of the living environment. Meanwhile, the standard criteria for environmental damage are measurements of the limit of changes in the physical, chemical and/or biological properties of the environment that can be endured by the environment in order to continue to preserve its functions. In principle, both conditions for pollution and environmental damage emphasize that the quality of the environment has fallen to a certain level and has resulted in the environment no longer being able to function according to its benefits/purpose.

The event when the environment does not function according to its intended purpose is essentially a manifestation of consequences that confirm that ecology has a limited carrying capacity. Beyond its capabilities, even though the environment has the capacity for assimilation and homeostasis to achieve a new state of equilibrium, if the rate of

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26 See Explanation of Article 90 paragraph (1) Law 32/2009 concerning Environmental Protection and Management.

27 Article 1 Number 14 Law 32/2009 concerning Environmental Protection and Management.

28 Article 1 Number 17 Law 32/2009 concerning Environmental Protection and Management.

exploitation exceeds its tolerance limits, the environment will be in a position that is no longer good and healthy. In some cases this condition represents an ecological/environmental disaster phenomenon. Hardin (1968) in his statement called this event "the tragedy of the commons".[29] This is a tragedy or ecological disaster that cannot be avoided when humans' greedy attitude towards exploiting natural resources ultimately exceeds the carrying capacity of the environment, and results in this event becoming a collective disaster. In this context, many in the society will experience losses without exception, considering the environment as a resource with common interests attached.

In its position as a common pool resource, it is possible for natural resources to exist in various possible control or ownership regime schemes. There are four types of ownership regime for natural resources, namely: open access, private property, commons property, and state property.

29 See Garret Hardin, "The Tragedy of the Commons", Science, New Series, Vol. 162, No. 3859 (Dec. 13, 1968), pp. 1243-1248, https://www.jstor.org/stable/1724745 accessed on October 10, 2023

Table 1. Types of Natural Resource Ownership Regimes[30]

No	Ownership Type	Character
1	Open Access	• There are no assignment/ownership rights to natural resources • Natural resources are open and freely accessible to anyone • Property rights are not clearly defined
2	Privately Owned	• Natural resources are not owned by the state, but by individuals, legal entities or business organizations • There are guaranteed regulations regarding the owner's rights in utilizing natural resources • Benefits and costs are borne by the owner
3	Belonging to a Community Group	• Natural resources are controlled by a group of people whose members are not only oriented towards exploitation but also have an interest in using them sustainably • Ownership rights are not exclusive and can be transferred as long as they comply with mutually agreed rules • There are utilization rules that bind group members
4	State Owned	• The government has exclusive utilization rights • The government has the authority to decide regarding access, level and nature of natural resource exploitation

30 Elinor Ostrom, Private and Common Property Rights, book chapter "Encyclopedia of Law and Economics, Vol. II: Civil Law and Economics", published by Edward Elgar, Cheltenham-England, 2000, pp. 332-379

Of the various types of control, the greatest risk of pollution and environmental damage can occur when natural resources are under open access. In such a condition, everyone will only prioritize their interests above those of other people and above awareness of ecological consequences. This situation has the potential to arise considering that the open access type inherently does not provide accountability mechanisms for the use of natural resources.

Apart from the open access type, in many cases ecological disasters in the form of pollution and/or environmental damage may also occur when natural resources are owned by the state, where based on its authority, management rights are then transferred through permits or concessions to business entities. Permit or concession holders who in their activities are only oriented towards extracting natural resources as commodities often leave the problem of environmental damage to the resource system. This is particularly relevant when the permits or concessions are obtained through a corrupt process.

In this situation, ecological losses as intended by PPLH Law 32/2009 are met. Apart from identifying parties who can be held legally responsible, it is also important to determine the extent of environmental losses incurred. An economic perspective is relevant to help explain ecological losses, considering that apart from natural resources themselves being a life support system, they are also commodities (factors of production), both of which have a value that is not impossible to evaluate.

Ecological loss valuation is the process of determining the economic value of losses due to pollution and environmental damage caused by the activities of a person or business entity, such as: pollution of the air; river pollution of rivers, lakes, groundwater; decrease in soil quality; damage to forest functions; damage to protected areas; and carbon release from forest areas. Ecological valuation is relevant to determine losses that must be recovered for environmental recovery and restoration. In this case, it is used as a basis for prosecuting environmental crimes, including those caused by corruption. Where the perpetrator of the crime is identified, he must be held responsible for the environmental damage he causes.[31] Ecological valuation can also be used to guarantee compensation for injured parties, as well as prevent a potential environmental crime in itself.[32]

There are several types of environmental values that often emerge as a basis for efforts to assess ecological losses. The types of environmental values are: direct use values; non-direct use values; and intrinsic values. The direct use value refers to the orientation that natural resources have value from their functions which can be extracted both in terms of goods (natural wealth content) and services (recreation and tourism). Meanwhile, indirect

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31 This is an actualization of the *Polluter Pays* principle as one of the principles emphasized in the 1992 Rio de Janeiro Declaration on Development and the Environment, specifically Principle 16 which reads: "*National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach <u>that the polluter should, in principle, bear the cost of pollution,</u> with due regard to the public interest and without distorting international trade and investment.*"

32 Jacob Phelps, Bernadetta Hariyanti, et al., "Valuasi Lingkungan di Indonesia: implikasi pada kebijakan di kehutanan, pertanggungjawaban hukum, dan estimasi kerugian negara", brief No. 32 of 2014, cifor.org

use value is related to the existence of natural resources which indirectly function as a life support system (climate regulation, hydrology, protection of underlying resources, etc.).

Intrinsic value, namely natural resources, has a value that is inherent in nature and its elements. In the perspective of traditional society, the form of intrinsic value is found in their attitude, which places nature or the environment as a living space where there are emotional relationships, even magical-spiritual and transcendent. This abstraction of their attitude implicitly reflects that the environment or nature has a right to existence which must also be respected, not merely because it has use value and economic benefits.[33]

In the regulations regarding ecological losses that are currently in effect, the scope of calculating environmental losses leads to the valuation of direct value and also indirect value due to environmental pollution and/or damage. This is elaborated by Permen LHK 7/2014, which basically confirms that ecological losses can be calculated as a monetary value given to the impact of environmental pollution and/or damage.[34] The amount of economic value refers to natural resources that can be processed into goods and services that can be utilized, which must be paid by business actors or activities that are responsible for causing environmental pollution and/or damage.[35] This economic value is not solely limited to human communities and their needs, but includes the value of the ecosystem as a whole.[36]

Some of the cases identified in the form of environmental pollution or damage include:[37]

a. Water or surface water pollution due to various development sector activities (industry, mining, hotels, hospitals, etc.);

b. Air pollution and disturbances (noise, vibration and odor) due to development sector activities (industry, mining and other activities);

c. Management of hazardous waste without a permit, not managing hazardous waste or disposal of hazardous waste, import of waste or hazardous waste;

d. Sea water pollution and/or marine destruction (coral reefs, mangroves and seagrass beds);

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33 This perspective is a reflection of the ecocentric paradigm in the form of an ethical awareness that humans are part of nature/the environment and have the same position and not a higher one.

34 See Pedoman Penghitungan Kerugian Lingkungan Hidup Akibat Pencemaran dan/atau Kerusakan Lingkungan Hidup, Appendix II Permen LHK 7/2014

35 *Ibid.*

36 Basuki Wasis, Penghitungan Kerusakan Ekologis dari Daya Rusak Pertambangan sebagai Kerugian Negara, paper presented in Workshop "Penghitungan Kerugian Sosial Ekologis Akibat Daya Rusak Tambang sebagai Kerugian Negara", Jatam and Walhi, Jakarta, July 15-17, 2019.

37 See Supreme Court Chair'ss Decree 36/KMA/SK/II/2013 concerning Implementation of Guidelines for Handling Environmental Cases. Even though SK 36/2013 has been revoked by the enactment of Perma 1/2023 concerning Guidelines for Adjudicating Environmental Cases, the types of descriptions of environmental cases in the civil, state administration and criminal domains remain as detailed in the previous regulation.

e. Environmental damage due to illegal logging and forest burning;

f. Environmental damage due to mining and illegal mining activities;

g. Environmental damage due to land conversion and land burning, illegal plantation businesses; and

h. Violation of spatial planning, which results in environmental pollution and/or destruction.

Meanwhile, ecological losses in Permen LHK 7/2014 include:

a. Losses due to exceeding environmental quality standards;

b. Losses for reimbursement of costs for implementing environmental dispute resolution;

c. Losses for reimbursement of costs for overcoming environmental pollution/ damage, as well as environmental restoration; and

d. Loss of ecosystem.

Losses due to exceeding environmental quality standards are caused by failure to carry out obligations for waste water treatment, emissions or management of hazardous waste. Confirmed in Permen LHK 7/2014, environmental pollution or damage can occur due to non-compliance by business actors of the provisions of laws and regulations for processing waste and preventing environmental damage by not carrying out their obligations to build and operate waste water treatment plants, air pollution and installations to the maximum extent possible. When this happens and causes environmental losses, then the person responsible for the business must bear the value of these losses at least in accordance with the cost of building and operating the installation.

Losses for compensation of the costs of implementing environmental dispute resolution—which can also be applied in environmental crimes—in Permen LHK 7/2014 include the costs of: field verification, laboratory analysis, experts and supervision of the implementation of payments for environmental losses. The occurrence of losses due to pollution and environmental damage requires the government's active role to ensure this by carrying out verification, inventory, including monitoring the implementation of certain actions that must be carried out by the person in charge of the business. The costs incurred by the government to ensure that pollution or damage occurs must then be reimbursed and become the burden of business actors who cause environmental pollution and/or damage.

Meanwhile, losses to compensate for the costs of dealing with pollution and/or environmental damage as well as environmental restoration, according to Permen LHK 7/2014, are described respectively as follows, *First*, the costs of dealing with them. When

environmental pollution or damage occurs, immediate action needs to be taken to overcome the pollution and environmental damage so that it can be stopped and does not get worse. This action can be carried out by business actors or by the government. In certain cases of environmental pollution or damage that require immediate treatment, the government immediately acts. For example, in cases of oil spills from ships and forest fires. In the event that such an incident occurs, the government incurs costs, then the entire amount of costs for such action must be reimbursed by the business actor who caused environmental pollution or damage.

Second, recovery costs. Basically, if possible, a polluted or damaged environment must be restored to its original condition, as before the environmental pollution or damage occurred. In some cases, because business actors feel unable to do so, these recovery efforts must be carried out by the government, which of course requires funds. For the costs incurred, business actors who are responsible for environmental pollution or damage are obliged to compensate them. And despite the fact that not all environments can be returned to their original state before pollution or damage occurred, in principle the party responsible for the business that caused environmental problems must still carry out restoration in the hope that the function of the environment will return to normal. As efforts to restore environmental functions require the existence of certain technologies in accordance with the different characteristics of ecosystems, the availability of environmental restoration costs is an important issue that cannot be left alone.

Meanwhile, regarding ecosystem losses, Permen LHK 7/2014 explains that when the environment becomes polluted or damaged, various impacts will then arise. The economic value of all impacts of pollution and environmental damage must be calculated, so that a complete value of environmental losses can be obtained. For example, if an oil leak occurs from a tanker, the marine ecosystem becomes polluted. Further impacts could be in the form of damage to coral reefs, damage to mangrove forests or damage to seagrass beds, so that the productivity of all types of ecosystems in producing fish is reduced.[38]

The ability of mangrove forests to protect beaches from the onslaught of waves is also reduced, the capacity of forests as spawning and nurturing places for fish is reduced, carbon uptake by mangrove forests is also reduced. Likewise, if natural forests are damaged or cut down, various environmental impacts will arise in the form of loss of forest capacity to hold water and provide water management, loss of ability to withstand erosion and flooding, loss of forest capacity to prevent sedimentation, loss of forest capacity to absorb carbon, loss of habitat for biodiversity, and even forests that are cut using burning techniques can increase greenhouse gas emissions (CO_2).[39]

The environmental damage mentioned above must be calculated according to the degree of damage and the length of time the damage lasts. Then the value of this damage is

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38 *Loc Cit,* Permen LHK 7/2014

39 *Ibid.*

added to the costs of obligations[40] and costs of verifying estimates of environmental pollution or damage, the costs of mitigating or restoring the environment, and it is even possible that the value of community losses arising from damage to the ecosystem is added to it.[41]

In cases of corruption resulting in damage to the environment and natural resources, such calculations must be taken into account as part of losses to the state's or the country's economy, bearing in mind that sooner or later, the government must bear all costs to restore the function and role of the environment as a public interest that must be protected.

Mechanism for Implementing the Money Laundering Crime Law

A. The Concept of the Crime of Money Laundering in General

The main characteristic of the crime of money laundering is that it is a follow-up crime. Therefore, in the concept of money laundering, there is a predicate crime which occurs first. This means that Money laundering will always be preceded by a predicate crime that produces economic value for the perpetrator. This economic value is present in the proceeds of crime, which the perpetrator of the crime desires to secure. In other words, money laundering occurs when there are activities carried out on assets resulting from a predicate crime through actions aimed at hiding or disguising the source and ownership of illegal assets.

One of the definitions of money laundering as a follow-up crime is stated in the *ratio decidendi* of the Constitutional Court decision 90/PUU-XIII/2015 at point [3.12].[42] The definition of money laundering is a follow-up crime, which is a continuation of the predicate crime, as an effort to hide or eliminate traces, in such a way that it cannot be known that the assets came from a criminal act.[43] Meanwhile, a predicate crime is defined

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40 What is meant by liability costs are environmental impact management activities which are the obligation of the person responsible for the business/activity that must be carried out, such as the construction of a waste water treatment plant (IPAL).

41 *Loc. Cit*

42 Muh. Afdal Yanuar, *"Diskursus Antara Kedudukan Delik Pencucian Uang sebagai Independent Crime Sebagai Follow Up Crime Pasca Putusan MK Nomor 90/PUU-XIII/2015"*, Jurnal Konstitusi, Vol. 16 No. 4, December 2019, p. 730.

43 See Constitutional Court Decision 90/PUU-XIII/2015 point [3.12] p. 113.

as a criminal act that produces money/wealth which is then laundered.[44]

Money laundering will always be preceded and followed by other criminal acts which are a series of interrelated crimes. Therefore, the money laundering eradication regime will always have the principle of *follow the money* rather than *follow the person*, because the criminal acts that are linked together channel wealth from one hand to another.[45]

In the discourse regarding money laundering, apart from the concept of money laundering as a follow-up crime, money laundering can also be viewed as an independent crime, namely as a criminal act that stands alone, and therefore, it is a different object from the predicate crime so that it is not an integral part of the predicate crime. This difference in concepts regarding follow-up crime or independent crime will later have an impact on the concept of proof in procedural law.

The concept of money laundering as an independent crime is reflected explicitly in Law 8/2010 concerning Prevention and Eradication of the Crime of Money Laundering (Money Laundering Law 8/2010) Articles 3, 4 and 5 with the phrase "it is known or reasonably suspected to originate from the proceeds of a criminal act". This phrase means that if the knowledge or reasonable suspicion that such wealth comes from the proceeds of crime, then the crime itself does not need to be proven.[46] Meanwhile, the element of "known or reasonably suspected" can be inferred from the facts obtained during trial. This means that in money laundering, a case cannot be stopped with the reason that the main case (predicate crime) has not been proven in court. In other words, if someone escapes a predicate crime, that does not mean they can escape legal action for money laundering.[47] This concept is also emphasized in Article 69 of the Money Laundering Law 8/2010, which states that in order to carry out investigations, prosecutions and examinations at court hearings regarding money laundering it is not necessary to first prove the predicate criminal act.

Money laundering as an independent crime can also be seen from the difference in object between the predicate crime and money laundering itself. The object of the predicate crime is the act and the actor (perpetrator), while the object of money laundering is the assets obtained by the perpetrator, which is suspected to have originated from a crime. Based on the explanation above, in the Money Laundering Law the main target is not the perpetrator's actions but the assets that are known or reasonably suspected to have originated from criminal acts.

The definition of money laundering, according to Sutan Remi Sjahdeni, is a series of activities carried out by a person or organization with money generated from criminal acts with the aim of hiding or disguising the origin of the proceeds of crime from law enforcement by inserting the money into the financial system. system) so that it becomes

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44 *Ibid.*

45 *Ibid.*

46 Supreme Court, Academic Paper on Money Laundering, Jakarta: MA RI, 2006, p. 58.

47 See Constitutional Court Decision 90/PUU-XIII/2015 point [3.3] p. 62

lawful money.[48] Meanwhile in the United Nations Convention Against Illicit Traffic in Narcotics, Drugs and Psychotropic Substances of 1988, which was later ratified with Law 7 of 1997 concerning Ratification of the United Nations Convention Against Illicit Traffic in Narcotics, Drugs and Psychotropic Substances, the term money laundering in accordance with Article 3 paragraph (1) b is defined as:[49]

> The conversion or transfer of property knowing that such property is derived from any serious (indictable) offence or offences, for the purpose of concealing or disguising the illicit of the property or of assisting any person who is involved in the commission of such an offence or offences to evade the legal consequences of his action; or the concealment or disguise of the true nature, source, location, disposition, movement, rights with respect to, or ownership of property, knowing that such property is derived from a serious (indictable) offence or offences or from an act of participation in such an offence or offences.

In the UN Convention of 1988, money laundering is defined as the transfer of property originating from the proceeds of an offense or serious crime with the aim of hiding or disguising the illegal property to avoid the legal consequences of the action; or disguising the true nature, source, location, rights related to ownership of property.[50]

Meanwhile, according to The Financial Action Task Force (FATF), money laundering is defined as follows: "Money laundering as the processing of criminal proceeds to disguise their illegal origin to legitimize the ill-gotten gains of crime."[51]

Money Laundering Law 8/2010 itself does not provide an elaborative definition of money laundering. Article 1 point 1 of the Money Laundering Law 8/2010 only states that money laundering is any act that fulfills the elements of a criminal act in accordance with the provisions of this Law.

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48 Sutan Remy Sjahdeini, Seluk Beluk Tindak Pidana Pencucian Uang dan Pembiayaan Terorisme, (Jakarta: Pustaka Utama Grafiti, 2007), p. 5.

49 Definition of Money Laundering in Article 3, Paragraph (1) United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances.

50 PPATK Legal and Regulatory Directorate, Kajian Hukum: Pembuktian Unsur Menyembunyikan dan Menyamarkan dalam Perkara Tindak Pidana Pencucian Uang, (Jakarta: Pusat Pelaporan dan Analisis Transaksi Keuangan (PPATK), 2021), p. 3.

51 Referring to the definition of The Financial Action Task Force (FATF).

Money Laundering Law 8/2010 regulates that acts included in money laundering activities are:[52]

a. Placing, transferring, diverting spending, paying, donating, entrusting, taking abroad, changing the form, exchanging for currency or securities or other actions on assets which one knows or reasonably suspects are the proceeds of a criminal act with the aim of hiding or disguising the origin of wealth.

b. Concealing or disguising the origin, source, location, designation, transfer of rights, or actual ownership of assets that one knows or reasonably suspects are the proceeds of a criminal act.

c. Receive, control the placement, transfer, payment, grant, donation, safekeeping, exchange or use of assets that one knows or reasonably suspects are the proceeds of a criminal act.

From the explanation of the meaning of money laundering, the essence that must be understood is that there is an element of hiding and disguising assets or wealth resulting from the criminal act. Based on the Money Laundering Law 8/2010, there are three forms of money laundering, namely:

1. Money laundering related to committing acts with the aim of hiding the origin of assets (regulated in the provisions of Article 3);
2. Money laundering relating to the act of hiding information about assets (regulated in the provisions of Article 4);
3. Money laundering relating to the act of receiving and/or controlling assets (regulated in the provisions of Article 5 paragraph (1) of the Money Laundering Law).

However, at the practical level, of the many criminal cases of corruption in licensing that result in state losses through damage to the environment/natural resources, so far only one criminal case of corruption has also been charged with the money laundering regime. In this case, it is a criminal case of corruption in the Surya Darma Group plantation business permit, Indragiri Hulu District, Riau Province, in case decision 62/Pid.Sus-TPK/2022/PN.Jkt.Pst with the defendant Surya Darmadi. The decision in this case has permanent legal force up to the cassation level through the decision in case 4950 K/Pid.Sus/2023 on September 14, 2023. Despite the fact that in the cassation level decision the panel of judges changed the length of the main sentence and the amount of compensation to be paid for the additional crime, the decision still confirmed the fulfillment of the elements of the offense of money laundering, which was also charged in addition to the elements of the crime of corruption.

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52 See Articles 3-4 of the Money Laundering Law.

Table 2. Corruption Cases Resulting in State Losses from the Environmental/ Natural Resources Sector

Case	Perpetrator	Perpetrator	Dakwaan
Bribery for issuing mining business permits	Supian Hadi, Former District Head of East Kotawaringin	IDR 5.8 trillion and USD 711 thousand	article 2 paragraph (1) or article 3 of the Corruption Crimes Law
Bribery related to PT. AHB Mining Area Reservation Approval	Nur Alam, Former Governor of Southeast Sulawesi	IDR 4.3 trillion	Article 2 paragraph (1) or Article 3 in conjunction with Article 18 and Article 12 of the Corruption Crime Law
Corruption in the land use change of oil palm plantation land in Singingi, Bengkalis and Rokan Hilir Districts	Anas Ma'mun, Former Governor of Riau	IDR 3.1 trillion	Article 12 letter b, Article 12 letter a, or Article 11 of the Corruption Crime Law
Bribery in the issuance of 2007-2014 nickel mining permits to several companies	Former District Head of North Konawe, Aswad Sulaiman	IDR 2.7 trillion	Still in the process of investigation at the KPK

Corruption in issuing permits for the use of timber forest products in plantation forests (IUPHHK-HT) in Siak[53]	Arwin AS, Former District Head of Siak	IDR 301.6 billion	Article 2 paragraph (1) in conjunction with Article 18 of the Corruption Eradication Law, Article 3 in conjunction with Article 18 of the Corruption Eradication Law
Corruption in forestry licensing in the form of ratification of the Annual Work Chart (BKT) (UPHHKHT)[54]	Rusli Zainal, Former Governor of Riau	IDR 265 billion	Article 2 paragraph (1), Article 3, Article 5 paragraph (1) letter a, Article 11, Article 12 letter a, or article 13 of the Corruption Crime Law
Corruption of Kapuas Hulu reforestation fund, West Kalimantan	Constantine Victor, Former Head of Forestry and Plantation Service	IDR 1.3 billion	Article 2 paragraph (1), Article 3 Jo Article 18 Corruption Crime Law
Corruption in the utilization of forest areas in the upper Indragiri region by Duta Palma Grup	Surya Darmadi (entrepreneur Raja Thamsir Rachman, Former District Head of Indragiri hulu	National financial loss of IDR 4.7 trillion National economic loss of IDR 79 trillion	Article 2 paragraph (1) Jo article 18, article 3 jo article 18 Corruption Crime Law, article 3, or article 4 Money Laundering Law

53 Cooperations that benefit from the act are PT. Bina Daya Bintara, PT. Seraya Sumber Lestari, PT. Balai Kayang Mandiri, PT. Rimba Mandau Lestari, PT. Nasional Timber and Forest Product.

54 Corporations that are involved or mentioned in the case are PT. Merbau Pelalawan Lestari, PT. Mitra Taninusa Sejati, PT. Rimba Mutiara Permai, PT. Selaras Abadi Utama, CV. Bhakti Praja Mulia, PT. Mitra Hutani Jaya, PT. Satria Perkasa Agung, CV. Putri Lindung Bulan.

B. The Concept of the Crime of Money Laundering in Corruption Cases in the Environmental Sector

In the report regarding the Sectoral Risk Assessment (SRA) of Money Laundering Resulting from the Crime of Corruption in 2022 issued by the Corruption Eradication Commission (KPK), the Attorney General of the Republic of Indonesia, the Indonesian Police, the Supreme Court, the Presidential Staff Office and PPATK, the environmental sector, especially forestry, oil and gas, minerals and mining, as well as maritime affairs and fisheries are strategic sectors that are found to be prone to corruption, apart from several other strategic sectors such as infrastructure, health, land, food, education, electricity, employment and new/renewable energy.[55] Sectors that are prone to corruption are also vulnerable to money laundering due to the following factors:[56]

A In the forestry and environmental sectors, several factors cause these sectors to become vulnerable, including the government's lack of firmness regarding payment of business actors' obligations, the development of the plantation industry, the licensing process utilized by bureaucracy in both forestry and the environmental sectors and the monitoring process, resulting in collusion in a transactional form and leniency in allowing activities that are in violation of the law;

B In the oil and gas sector, factors that cause vulnerability are the hoarding/ scarcity of oil and gas so that perpetrators can enrich themselves from the hoarding, lack of supervision regarding oil and gas circulation, hiding proceeds from oil and gas sales in other forms of business so that it appears as if they are not oil and gas proceeds, and a trend in high oil prices;

C In the mineral and mining sector, vulnerability to money laundering appears due to unlicensed mineral and mining business activities that have an impact on environmental damage and threaten people's lives, the lack of regulations limiting cash transactions, the lack of effective confiscation of assets and other factors such as the mining mafia in all levels from licensing to to exploitation, and illegal mining not paying taxes.

55 NRA Indonesia Update Team, Penilaian Risiko Sektoral Tindak Pidana Pencucian Uang Hasil Tindak Pidana Korupsi Tahun 2022, (Jakarta: Pusat Pelaporan dan Analisis Transaksi Keuangan (PPATK), 2022), p. 53.

56 *Ibid.*, p. 54

From the several factors above, the vulnerability factors for money laundering in relation to natural resources are indeed varied, but in general the vulnerable points for corruption as a predicate crime in natural resources are in terms of licensing governance, closed information, oligarchic power, and abuse of authority.[57]

The Financial Action Task Force (FATF) report states that environmental crimes cover various broad aspects of activities, from illegal mining, trading in forest products and mining materials, to illegal land clearing and waste trading. The low-risk, high-reward nature of environmental crime makes it a profitable source of income for perpetrators and they rely on the financial and non-financial sectors to launder the proceeds of their crimes.[58] Still in the same report, the FATF also revealed that environmental crime is estimated to be one of the crimes that generate the most profitable income in the world, namely around USD 110 to 281 billion in criminal profits every year, of which 66% comes from forestry crimes, illegal mining and waste trade.

The most common modus operandi in money laundering related to environmental crimes is trade-based fraud and the abuse of shell companies and front companies to launder profits from illegal logging, illegal mining and waste trading.[59] In this case, the perpetrator mixes legal and illegal goods at the beginning of the resource supply chain to hide the predicate crime and disguise the activity so that it appears to be legal. The complexity of this modus operandi ultimately makes it difficult for law enforcement officials to differentiate between legitimate and illegitimate financial flows.[60] Moreover, in the chain of money laundering activities carried out by perpetrators, important roles are often played by public officials (through bribery and corruption), using complex company structures, and using intermediaries (accountants, lawyers, etc.).[61]

FATF states that there are three trends in money laundering from environmental crimes, namely:

1. Criminals involved in illegal logging, illegal mining and waste trading, launder their money through the formal and informal financial sectors in the country. These include financial and commercial centers and company formation;
2. In environmental crimes, criminals often abuse shell companies and front companies to combine legal and illegal goods and payments at the beginning of the natural resource supply chain. This makes it difficult to separate legal and illegal activities, as well as to detect laundering later in the supply chain; and
3. These same networks will use complex corporate structures, intermediaries

57 Yunus Husein, Korupsi dan Corporate Criminal Liability di Sektor Sumber Daya Alam, (Jakarta: Auriga Nusantara, 2020), p. 5.

58 J uly 2021 FATF report, Money Laundering from Environmental Crimes, p. 3

59 *Ibid.*

60 *Ibid.*, p. 13

61 *Ibid.*

(accountants, lawyers, etc.) to mask financial flows and use overseas jurisdictions to facilitate placement and/or layering of funds, highlighting the importance of beneficiary identification.

From the explanation above, the principle of *follow the money* in money laundering is very important because with the complex modus operandi of the perpetrators, in the end the flow of money will go to the owner or beneficiary of the proceeds of crime who is commonly referred to as the beneficiary owner. Since 2020, the FATF has detailed potential risk indicators related to money laundering from environmental crimes against beneficiary owners, namely:

1. Transactions and cash flow.

    a. Routine payments from companies in the logging, mining or waste trading sectors to individuals or beneficiaries who are not related to the activities or business of the legal entity;

    b. Transfer of large amounts from labor-intensive businesses to beneficiaries in areas known to be sources of gold mining and illegal logging and illegal land clearing;

    c. Transfers from the country where the gold is smelted to the country where the gold is sourced, and cash withdrawals are almost instantaneous on most transfers.

2. Clients (customers).

    a. Unexplained wealth, transfers involving high-ranking officials, people (or family members) who hold public positions related to the management or preservation of natural resources;

    b. Clients who cannot provide proof of compliance with local environmental requirements (such as proof of permits for environmental activities, exports, and land purchase/lease agreements, etc.);

    c. Intermediaries—such as lumber processing facilities, sawmills, and metal refining—with financial activities that do not align with local production levels;

    d. Clients with mining or logging permits operating in or around active conflict zones.

3. Economic Activities.

    Sudden and unexplained increase in economic activity (formal and informal) in remote areas, especially in countries where illegal logging and mining originate. This can include very high turnover volumes in cash transactions in businesses that provide consumer goods and services near risk zones.

4. Exports and Transfer Prices.

a. Trade transactions to finance extractive businesses that involve high-risk jurisdictions, for example those that are proven to have risks of corruption, conflict and/or illegal extraction of natural resources;

b. False or questionable statements regarding bank loans, letters of credit, customs duties, and shipping documents related to the timber trade;

c. Financing the export of environmentally sensitive goods (such as logs) during the moratorium period, or which are prohibited by national authorities.

5. Waste Trading.

a. People with minimal experience entering the waste management sector, or with suspicious organizational structures or economic activities;

b. Large international transfers of funds between local waste management sector companies and source countries known for their waste trade;

c. Waste management sector companies with payments or trade invoices for types of waste that do not correspond to those permitted for processing.

Meanwhile, in Indonesia, since 2022 PPATK has promoted the concept of Green Financial Crime, which is defined as a financial crime in the field of natural resources and the environment, especially legal or illegal exploitation of natural resources which results in environmental damage and losses to the state and/or the state economy.[62] Based on the results of the risk assessment of money laundering in Indonesia published by PPATK, it was identified that the majority of money laundering originating from green financial crime is included in the medium to high risk level, of which one cause is the low level of law enforcement handling money laundering originating from predicate crimes.[63] It is recorded that in 2022, PPATK submitted 23 Analysis Results (HA), 1 Inspection Result (HP) and information to law enforcement regarding money laundering crimes in the environmental sector.[64]

During the 2022-2023 period, the PPATK found suspected illegal fund flows from 53 reports received, including money laundering, related to crimes in the environmental sector with a value reaching 20 trillion.[65] There are 53 reports related to criminal acts in the environmental sector that refer to illegal trade in wild plants and animals, mining, forestry, environment, taxation, and maritime affairs and fisheries.

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62 PPATK Report, Budaya Indonesia Mendunia Menyambut Keanggotaan FATF: Laporan Tahunan PPATK Tahun 2022, (Jakarta: Pusat Pelaporan dan Analisis Transaksi Keuangan (PPATK), 2022), p. 63.

63 *Ibid.*

64 *Ibid.*, p. 13.

65 Rahel Narda Chaterine and Sabrina Asril, *"PPATK: Pencucian Uang Terkait Kejahatan Lingkungan 20 Triliun"* (https://nasional.kompas.com/read/2023/06/27/16081621/ppatk-pencucian-uang-terkait-kejahatan-lingkungan-sampai-rp-20-triliun diakses 20 Oktober 2023, 2023).

C. Application of the Money Laundering Law to Corruption in the Environmental Sector

The current Money Laundering Law has undergone several changes, most recently being passed through Law 8/2010 concerning Prevention and Eradication of Money Laundering. This law amends several provisions of Law 15/2002 concerning the Crime of Money Laundering which was also previously amended by Law 25/2003.

Changes to the provisions include including predicate crimes, which are more broadly defined than before, whereas Article 2 paragraph (1) of the Money Laundering Law 8/2010 states 26 predicate crimes that also include corruption, the forestry sector and the environmental sector. Meanwhile, in Law 15/2002 there are only 15 types of predicate crimes and Law 25/2003 only regulates 25 types of predicate crimes. Regarding investigative authority, the two previous laws only regulated investigations within the realm of the Indonesian National Police, but the Money Laundering Law 8/2010 regulates it more comprehensively and gives investigative authority to the Police, Prosecutor's Office, Corruption Eradication Commission, National Narcotics Board, Directorate General of Taxes, and Directorate General of Customs and Excise.

Along the way, the investigative authority experienced further developments, especially after the Constitutional Court Decision 15/PUU-XIX/2021 regarding PPNS which is relevant to predicate crimes. Constitutional Court Decision 15/PUU-XIX/2021 is a momentum for action against money laundering in the environmental and natural resources sector because it is the basis for opening the concept of parallel investigations or multiple

investigators, which will strengthen the anti-money laundering regime.[66]

In ensnaring perpetrators of corruption in the natural resources/environmental sector, the Money Laundering Law 8/2010 can be used if in the process it is discovered that there is an attempt by the perpetrator to divert or hide the flow of funds. Conceptually, there are a number of advantages if law enforcement officials are able to maximize the evidentiary test forum using articles in the Money Laundering Law 8/2010.[67] Especially at the investigation stage, the money laundering article provides ample scope for identifying perpetrators of criminal acts of corruption using a *follow the money* concept approach.[68]

The Money Laundering Law 8/2010 as an entry force for natural resource/environmental corruption cases has advantages in Articles 70 to Article 75 because these articles allow law enforcers to be able to postpone transactions or block assets that are known or reasonably suspected to be the proceeds of criminal acts by any person. which have been reported by PPATK to investigators; suspect, or defendant. The consequence of

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66 This decision began with a request from the PPNS of the Ministry of Environment and Forestry together with PPNS from the Ministry of Maritime Affairs and Fisheries to submit a request for a judicial review of the statement of Explanation 74 of the Money Laundering Law 8/2010 which substantially contradicts the norms of Article 74 of the Money Laundering Law 8/2010. The Constitutional Court's decision declared the phrase "*predicate crime investigator*" in the Elucidation to Article 74 of the Money Laundering Law 8/2010 as conditionally constitutional. The explanation interprets the phrase "*predicate criminal investigator*", to be interpreted as "*an official or agency that is authorized by statutory regulations to carry out investigations*". Thus, predicate crime investigators include PPNS. This Constitutional Court decision is considered progressive in optimizing asset recovery of crime proceeds originating from forestry predicate crimes, environmental crimes, maritime and fisheries crimes, and all predicate crimes with other economic motives, because this decision means all predicate crime investigators in the scope of its authority under the law can now carry out money laundering investigations.

In line with this, in the period May 2023, the Ministry of Environment and Forestry responded to various changes in the money laundering regime in the environmental sector by forming a Joint Team for Handling Alleged Money Laundering related to Environmental and Forestry Crimes (TPLHK). The formation of a Joint Team between the Directorate General of Law Enforcement, KLHK and PPATK was carried out through the Decree of the Director General of Environmental Law Enforcement SK.37/PHLHK/PHPLHK/GKM.3/05/2023 dated 11 May 2023. In the institutional order in Indonesia, PPATK is the central entity that plays an important role in preventing and investigating allegations of money laundering based on the Money Laundering Law. The formation of a joint team to handle allegations of money laundering is a follow-up to the collaboration between the Ministry of Environment and Forestry and PPATK through Memorandum of Understanding PKS.10/MENLHK/SETJEN/KUM.3/10/2019 concerning Cooperation in the Context of Preventing and Eradicating Money Laundering Crimes in the Environment and Forestry sector, one of the contents of which is the formation of a Joint Anti Money Laundering Team to increase the deterrent effect and justice.

The legal basis for the formation of this joint team is Article 88 of the Money Laundering Law 8/2010 which states that national cooperation carried out by PPATK with related parties is expressed with or without formal cooperation, and the related parties are parties who have a direct or indirect connection with prevention and eradication of money laundering in Indonesia. Article 46 Presidential Decree 50/2011 concerning Procedures for Implementing the Authority of the Center for Financial Transaction Reporting and Analysis also states that a joint team can be formed consisting of predicate crime investigators and PPATK.

67 Diky Anandya and Lalola Easter, Laporan Hasil Pemantauan Tren Penindakan Kasus Korupsi Tahun 2022: Korupsi Lintas Trias Politika, (Jakarta: Indonesia Corruption Watch (ICW)), p. 21.

68 *Ibid.*

this, in investigating money laundering, law enforcement can reveal the confidentiality of accounts not only belonging to suspects but also those belonging to people reported by PPATK to law enforcement. Meanwhile, in the case of combining money laundering and predicate crime investigations, it is carried out if investigators have found sufficient initial evidence regarding the occurrence of money laundering and predicate crimes as regulated in Article 75 of the Money Laundering Law 8/2010. The provisions of Article 75 of the Money Laundering Law 8/2010 are also strengthened by Article 141 of Law 8/1981 concerning Criminal Procedure Law (KUHAP) relates to combining case files at the prosecution stage.

In terms of restoring state finances, the Money Laundering Law 8/2010 is also more effective than other laws because:

1. In the event that the defendant dies before the verdict is handed down and there is strong enough evidence that the person concerned has committed money laundering, the judge at the request of the public prosecutor can decide to permanently seize the assets that have been confiscated (Article 79 paragraph (4) Money Laundering Law 8/2010). This provision is intended to prevent the defendant's heirs from controlling or owning assets derived from criminal acts. Apart from that, it is an effort to restore state assets in the event that these criminal acts have harmed state finances.

2. If sufficient evidence is obtained that there are still assets that have not been confiscated, the judge orders the public prosecutor to confiscate the assets (Article 80 of the Money Laundering Law 8/2010).

A money laundering case from the natural resources/environmental sector with a fantastic value of state losses is the case of Surya Darmadi, the owner of Darmex Plantations (Duta Palma Group) who was convicted of committing a criminal act of corruption in palm oil plantation business permits (together with the District Head of Indragiri Hulu, Raja Thamsir Rachman) in Riau Province, between 2004-2022, which costs the state finances IDR 2.6 trillion, USD 4.9 million, and the country's economy IDR 39.7 trillion.[69] Apart from that, the person concerned also received illegal profits amounting to IDR 2.2 trillion.[70] Surya Darmadi was declared guilty of committing "joint criminal acts of corruption and money laundering" as regulated by Article 2 paragraph (1) of the Corruption Eradication Law 31/1999 jo. Law 20/2001 and Article 3 of Money Laundering Law 8/2010.

In his indictment, the public prosecutor stated that Surya Darmadi—as the beneficiary owner of PT Banyu Bening Utama, PT Kencana Amal Tani, PT Palma Satu, PT Seberida

69 Decision 62/Pid.Sus-TPK/2022/PN.Jkt.Pst, pp. 1551-1552

70 *Ibid.*, p. 1566

Subur and PT Panca Agro Lestari—had carried out oil palm plantation activities and palm oil mill management activities in the area. Based on BPKP calculations, forests that are not provided with principal permits, environmental permits and forest area release permits result in state financial losses of USD 7.8 million and IDR 701 billion.[71]

The state's financial losses are calculated from state revenue rights that are not paid by Surya Darmadi, consisting of: Reforestation Funds, Forest Resource Provisions, Fines for Violations of Forest Exploitation, and Compensation for Use (rent) of Forest Areas from 2004 to 2020. The amount has not included the state's burden in restoring the environment amounting to more than IDR 4 trillion.[72] In fact, the state's burden related to environmental damage, which should be the responsibility of the defendant (ecological loss, environmental economic loss and environmental restoration) was revealed in the indictment to amount to IDR 73.9 trillion.[73]

During the trial, the Prosecutor General's Office at the Corruption Court stated that Surya Darmadi in the period 2004 to 2010 deliberately paid or spent assets which he knew or reasonably suspected were the proceeds of criminal acts, whether the actions were in his own name or in the name of another party.[74] The proceeds of corruption carried out by Surya Darmadi through PT Banyu Bening Utama, PT Kencana Amal Tani, PT Palma Satu, PT Seberida Subur and PT Panca Agro Lestari were then placed and transferred to PT Darmex Plantations in the form of dividend distribution, shareholder debt payments, capital deposits to PT Monterado Mas, PT Alfa Ledo, PT Asset Pacific and to other companies owned by the defendant.[75] These assets were then spent in other forms in the name of Surya Darmadi or other parties, including:[76]

1. In 2005, he purchased residential and non-residential flats at The Ritz Carlton Hotel and the Airlangga Kuningan apartment with an area of 880 m^2 in the name of Surya Darmadi.
2. In 2005, he purchased residential and non-residential flats at The Ritz Carlton Hotel and the Airlangga Kuningan apartment with an area of 440 m^2 in the name of Cheryl Darmadi (Surya's daughter).
3. In 2005 he purchased a house on Jalan HR Rasuna Said Kuningan with an area of 4,720 m^2 in the name of PT Wanamitra Permai (a subsidiary of PT Asset Pacific).
4. In 2007 he purchased land and buildings on Jalan Bukit Golf Utama Pondok Pinang covering an area of 4,445 m^2 in the name of PT Ratu Alam Persada.
5. In 2007 he purchased land and buildings on Jalan Bukit Golf Utama Pondok Pinang covering an area of 535 m^2 in the name of PT Ratu Alam Persada.

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71 *Ibid.*, see pp. 239-240
72 *Ibid.*
73 *Ibid.*
74 *Ibid.* p. 241
75 *Ibid.*, p. 241-248
76 *Ibid.*

6. In 2007 he purchased land and buildings on Jalan Simprug Garden Kebayoran Lama covering an area of 912 m^2 in the name of Surya Darmadi.

7. In 2007, he purchased land and buildings on Jalan Bukit Golf Utama, Pondok Pinang, covering an area of 535 m^2 in the name of PT Ratu Alam Persada.

8. In 2007, he purchased land and buildings in Sengkati Baru urban village, Batang Hari, Jambi province, covering an area of 697,196 m^2 in the name of PT Delimuda Perkasa.

9. In 2008 he purchased land and buildings on Jalan Bukit Golf Utama Pondok Pinang covering an area of 2,358 m^2 in the name of Bill Darmadi (Surya's son).

10. In 2008 he purchased land and buildings on Jalan Bukit Golf Utama Pondok Pinang covering an area of 2,723 m^2 in the name of Bill Darmadi.

11. In 2010, he purchased land and buildings on Jalan HR Rasuna Said, East Kuningan, South Jakarta, covering an area of 4,470 m^2 in the name of PT Kuningan Nusajaya (a subsidiary of PT Asset Pacific).

The Surya Darmadi case started with the Prosecutor's Office naming him a suspect in 2015 for alleged corruption in plantation business permits on 37,095 ha of land in a forest area in Indragiri Hulu District, Riau. This case occurred when the District Head of Indragiri Hulu in 1999-2008, Raja Thamsir Rachman, issued location permits and plantation business permits to four PT Duta Palma Group companies: PT Banyu Bening Utama in 2003 as well as PT Panca Agro Lestari, PT Palma Satu, and PT Seberida Subur in 2007. Previously, in 2014, Surya Darmadi was also named a suspect by the Corruption Eradication Commission in the corruption case regarding the revision of forest conversion in Riau Province.[77] The results of the investigation stated that Surya Darmadi bribed the former Governor of Riau, Annas Maamun, amounting to IDR 3 billion.[78]

The court process first started at the first level at the Central Jakarta District Court with case register 62/Pid.Sus-TPK/2022/PN Jkt.Pst. After going through the trial process, on February 23, 2023 the panel of judges made their decision, sentencing Surya Darmadi to 15 years in prison and a fine of IDR 1 billion, and an additional criminal sentence of compensation for state financial losses amounting to IDR 2.2 trillion and state economic losses amounting to IDR 39.7 trillion. Against the first level decision, Surya Darmadi appealed to the DKI Jakarta High Court and two months later, the decision read by the panel of judges at the appeal level on June 13, 2023 confirmed the decision of the previous panel of judges.

After the decision at the appeal level, Surya Darmadi submitted a request for cassation with case number 4950K/Pid.Sus/2023, where the panel of judges at the cassation level

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77 Uji Sukma Medianti, *"Perjalanan Kasus Surya Damadi, dari Kronologi Kasus, Penyerahan Diri hingga Sidang Vonis"*, (https://nasional.tempo.co/read/1695065/perjalanan-kasus-surya-darmadi-dari-kronologi-kasus-penyerahan-diri-hingga-sidang-vonis?page_num=2 accessed on November 2, 2023).

78 *Ibid.*

on September 14, 2023 in their decision revised the criminal sentence to 16 years' imprisonment and a fine of Rp. 1 billion, as well as an additional criminal penalty of compensation amounting to Rp. 2.2 trillion.

At the cassation level by the Supreme Court, the panel of judges rejected the calculation of state economic losses by emphasizing that although laws and regulations related to the environment and forestry have a correlation with the Corruption Law, criminal acts that cause financial losses to the state cannot necessarily be categorized as losses. country in criminal acts of corruption. The panel of cassation judges, as justification, in this case used Constitutional Court Decision 25/PUU-XIV/2016 dated January 25, 2017, which states that state financial losses must be actual losses, not potential losses.[79] The cassation panel judges were of the opinion that the calculation of the state's economic losses, which was based on the consequences of the costs to restore damage to state assets that had to be borne by the government, was a prediction of the costs that had to be borne by the state for environmental restoration. Thus, this is a potential loss which therefore does not include state losses in the realm of criminal acts of corruption.[80]

Apart from that, in imposing an additional criminal sentence of compensation money, taking into account the provisions of Article 18 paragraph (1) letter b of the Eradication of Corruption Law 31/1999, the panel of cassation judges stated that the imposition of maximum compensation money on the defendant was the same as the property obtained from criminal acts of corruption. So for the additional criminal penalty the next relevant replacement money charged to Surya Darmadi was "only" IDR 2.2 trillion as it was proven to be the illegal gain obtained.[81]

In the matter of opinions regarding losses to the state's economy and likewise regarding additional criminal penalties in compensation by the panel of cassation judges, there was a dissenting opinion. One of the cassation judges, namely Sinintha Yuliansih Sibarani, stated that she dissented from the other two judges, and agreed with the appellate level decision which upheld the first instance decision.[82] In her opinion, which affirmed the first decision and appeal, judge Sinintha was limited to correcting the prison sentence to 16 years and a fine of IDR 1 billion in accordance with Supreme Court Regulation (Perma) 1/2020 concerning Sentencing Guidelines Article 2 and Article 3 of the Corruption Law.

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79 Decision : 4950K/Pid.Sus/2023, pp. 194-195

80 *Ibid.,* p. 195

81 *Ibid.,* p. 197

82 *Ibid.,* pp. 198-202

The Relevance of Asset Recovery Efforts in Environmental Damage

When Joko Widodo first became president, Indonesia had a corruption perception index (CPI) score of 34/100. The eradication of corruption was going quite well. It was shown that every year Indonesia's CPI score increased, even at the beginning of his second term, Indonesia's CPI score reached 40/100. However, Indonesia's CPI score at the end of his second term dropped sharply back to 34. Transparency International said this decline was one of the steepest in the Asian region. In terms of ranking, Indonesia is currently down five places from the previous position of 110 to 115 in 2023.

Currently, Indonesia is on the brink of falling into the tertile of the most corrupt countries in the world, far below a number of neighboring countries such as Singapore, Malaysia, Timor-Leste, Vietnam and Thailand—a heartbreaking position for the holder of the 2022 G20 Presidency and 2023 ASEAN Chairmanship.[83] The drop in the CPI score is correlated with the impact caused. Thus, truly extraordinary efforts are needed, especially in prevention and action.

Talking about prevention and action, the deterrence criminal approach becomes relevant. According to Leonard Orland, this approach aims to prevent and reduce crime. Therefore, the existence of criminal law is intended to change the behavior of criminals and other people who have the potential or are likely to commit crimes.[84] The prevention in question can be specific or general.[85] This theory aims to prevent criminal acts from occurring in the future.[86] Supposedly, the crime rate will be lower if the effectiveness of criminal law as a deterrent functions as intended, namely preventing individuals and

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83 Transparency International, Refleksi Komitmen Anti Korupsi Kandidat Presiden dan Wakil Presiden 2024-2029, see further https://ti.or.id/wp-content/uploads/2024/01/rev-Refleksi-Komitmen-Antikorupsi-Kandidat-Presiden-2024.pdf

84 Leonard Orland, 1973, *Justice, Punishment, Treatment The Correctional Process*, New York: Free Press. p. 184.

85 T. Mathiesen, 1995, *General Prevention as Communication in A Reader on Punishment.* RA Duff and David Garland (Eds). New York: Oxford University Press, Inc. p. 221. According to Mathiesen, General Prevention is a means of communication in the form of a person from the state who holds the authority to impose punishment on the community. It is further explained that this message consists of: "(1) Punishment is a message which intends to say that crime does not pay (deterrence); (2) it is a message which intends to say that you should avoid certain acts because they are morally improper on incorrect (moral education); (3) it is a message which intends to say that you should get into the habit of avoiding certain acts (habit information)." It can also be interpreted that the purpose of punishment is the state's duty to convey the state's message, especially those that are its responsibility regarding the components of the criminal justice system. As Eddy O. S. Hiariej said: "General deterrence means that a sentence imposed on someone who commits a crime will give other people fear of committing a crime. Meanwhile, special prevention is intended to ensure that the perpetrator does not repeat the crime again," see Eddy O.S. Hiariej, 2014, *Prinsip-prinsip Hukum Pidana*, 1st Edition, Yogyakarta: Cahaya Atma Pustaka. p. 33

86 Jan Remmelink. 2003, *Hukum Pidana Komentar atas Pasal-pasal Terpenting dari Kitab Undang-undang Hukum Pidana Belanda dan Padanannya dalam Kitab Undang-undang Hukum Pidana Indonesia*. Jakarta: Gramedia Pustaka Utama. p. 605.

corporations from committing crimes.[87]

The general nature of economic crime is that the perpetrator will commit the crime if the profits obtained are greater than the costs borne. Therefore, this behavior can be prevented by confiscating the assets of criminals (corruption). This confiscation of assets itself has actually been regulated in many sectoral laws, including the Corruption Crime Law, the Money Laundering Crime Law, and the Environmental Law. Unfortunately it has not been utilized optimally, and the procedure is still too complicated.

Efforts to recover assets through the use of the Corruption Crime Law tend not to be easy to carry out. Corruption perpetrators have wide and difficult access to hide or launder the proceeds of crime. Not infrequently, perpetrators hide the proceeds of crime beyond national borders in safe havens. For developing countries, solving various asset recovery problems that touch the legal provisions of large countries will be difficult, especially if the country does not have a good cooperative relationship with the country where the stolen assets are stored. Not to mention the very limited technological capabilities of developing countries.[88]

The current laws and regulations also contribute to the complexity of the asset confiscation process, because they must be included in a lawsuit where the burden of proof lies with the Public Prosecutor, and can only be confiscated when the judge's decision has permanent legal force. In other words, asset recovery can only be carried out if the criminal case has been processed or has been decided by the court (conviction basis). The punishment can take the form of a fine, confiscation of goods used or obtained from the crime, confiscation of profits, and payment of compensation. While several existing laws also carry the concept of confiscation of assets without conviction (non-conviction basis), but the model uses ordinary civil lawsuits[89] which take a long time until the decision has permanent legal force. In fact, one of the purposes of asset confiscation is to recover the proceeds of a crime.

In relation to criminal acts in the field of natural resources and the environment, the aim of confiscation of assets is so that the perpetrator does not divert or transfer assets to other parties. If in the future the perpetrator runs away, dies or escapes, then the assets confiscated can be controlled by the state, and the assets confiscated can be used to recover damage caused by the criminal act. This is necessary, because quite a few crimes against natural resources leave irreparable damage to the environment, many of these crimes even resulting in loss of life. For example, mines abandoned by entrepreneurs. According to the East Kalimantan Mining Advocacy Network (Jatam), from 2011 to 2021,

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87 Ben Johnson, "Do Criminal Laws Deter Crime? Deterrence Theory in Criminal Justice Policy: A Primer, see https://www.house.mn.gov/hrd/pubs/deterrence.pdf

88 Eddy O. S. Hiariej, 'Pengembalian Aset Kejahatan', **Jurnal Opini Juris**, Vol. 13 May-August 2013, p. 2.

89 Jean-Pierre Brun, et al., 2015, *Public Wrongs, Private Actions: Civil Lawsuit to recover Stolen Assets, Stolen Asset Recovery Initiative,* The World Bank and UNODC, p. xi.

40 people died[90] due to unrestored mine holes. By recovering assets, it is hoped that environmental damage problems can be minimized.

Other cases that have an impact on the environment are the conversion of forests into other forms (plantations, settlements, farming, mining, infrastructure development, etc.) resulting in the loss of the ecological function of forests which is essential for community life and the ecosystem. As a result, people's welfare is reduced, and the ecosystem becomes disturbed.

Not a small amount of this environmental damage occurs due to the corrupt behavior of officials and the greed of corporations to gain profits from the exploitation of natural resources and the environment. Among these cases are the following: Corruption of Kapuas Hulu reforestation funds in West Kalimantan; Corruption of mining permits in Southeast Sulawesi; Corruption in the issuance of mining business permits in East Kotawaringin, Corruption in the conversion of oil palm plantation land in Singingi, Bengkalis and Rokan Hilir Districts, Corruption in the issuance of nickel mining permits, Corruption in forestry sector permits in Riau, Corruption in the rehabilitation of protected forests in Musi, South Sumatra, Corruption in publishing permits for utilization of timber forest products in plantation forests in Siak, Corruption in the construction of Riau-1 steam power plant in Riau, Corruption in permits for locations of core and plasma oil palm plantations in Kutai Kartanegara, Corruption/bribery to members of the Central Kalimantan DPRD related to the right of inquiry for the PT BAP plantation, Corruption in the processing of PT Protelindo's Space Utilization Principle Permit (IPPR) in Mojokerto, Corruption/Gratification of principle and marine utilization permits, reclamation projects for coastal areas and small islands in the Riau Islands, Corruption in the conversion of forest areas in Indragiri Hulu, Corruption in the issuance of ore mining documents nickel in Southeast Sulawesi, and corruption in the management of business use rights (HGU) at the Riau Province BPN Regional Office.

Of the cases mentioned above, unfortunately none has used the asset confiscation approach. Once the Corruption Eradication Commission (KPK) submitted a demand for restoration of environmental damage in the case of granting approval for an exploration Mining Business Permit (IUP) belonging to PT Anugerah Harisma Barakah (AHB) on Kabaena Island, Southeast Sulawesi with the suspect being former governor Nur Alam, but the demand was rejected by the panel of judges in the court of first instance, reasoning that "the burden of ecological losses and environmental restoration costs is the responsibility of the company, not Nur Alam as Governor."[91] The judge at the cassation level apparently gave a different consideration, even stating that the loss of 1.5 trillion could not be categorized as a state loss but was purely a profit obtained from

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90 CNN Indonesia, 'Lubang Bekas Tambang Kaltim 40 Tewas Sejak 2011 Didominasi anak', see https://www.cnnindonesia.com/nasional/20220204192046-12-755269/lubang-bekas-tambang-kaltim-40-tewas-sejak-2011-didominasi-anak

91 Imam Rofi'i and Emmalia Rusdiana, 'Kajian Yuridis Pertanggungjawaban Korporasi Terhadap Kerusakan Lingkungan Yang Mengakibatkan Kerugian Negara Dalam Putusan Nomor 2633/K/PID.SUS/2018', **Novum: Jurnal Hukum**, Volume 7 No. 4, October 2020, pp. 140-152.

running a business. The full consideration reads:[92]

That the *judex facti* opinion is incorrect because what is intended by Article 2 and Article 3 of Law 31/1999 concerning the Eradication of the Crime of Corruption as amended by Law 20/2001 concerning Amendments to Law 31/1999 concerning Eradication of the Crime of Corruption is a financial loss to the State, not a loss to the State. That the profit amounting to IDR 1,596,385,454,137.00 (one trillion five hundred ninety six billion three hundred eighty five million four hundred fifty four thousand one hundred thirty seven rupiah) is not State finance, because the State has never managed the mining through State Owned or Regional Owned Enterprises, and business permits issued by the Governor have never been cancelled, because they were still considered valid before being canceled by the Defendant, so that the profits received by PT. Billy Indonesia has nothing to do with state finances because it is purely profit obtained from running a business.

If we examine the judge's decision above further, there are two conflicting views. The first instance judge believes that ecological losses and restoration costs are economic losses to the state which can be borne by the perpetrators of the crime (in this case not Nur Alam, but the Company who benefit), while the cassation level judge considers that in corruption cases what is meant by loss is state financial loss, namely a reduction in state assets caused by an unlawful act, abuse of authority/opportunity or means available to a person due to position or position, negligence of a person and/or caused

92 Defendant Nur Alam's Cassation Decision, 2633K/PID.SUS/2018

by circumstances beyond human capability (force majeure).[93]

Meanwhile, the 1.5 trillion received by the Corporation is considered a legitimate profit. These considerations can certainly be debated academically. Profits obtained by corporations cannot be considered legal because they were obtained through illegal/corrupt methods, and the corrupt actions were later proven. Unfortunately, in the Nur Alam case, no further legal proceedings were carried out against the company that benefited from the illegal actions carried out by Nur Alam.

An interesting court decision to use as a basis for the concept of asset confiscation for environmental restoration is Decision 62/Pid.Sus-TPK/2022/PN.Jkt.Pst with the defendant Surya Darmadi. This decision (although it was later decided differently by the cassation judge) made it clear that environmental damage is part of the country's economic losses.

The Public Prosecutor charged Surya Darmadi because PT Duta Palma, which operates in Indragiri Hulu District, obtained a location permit unlawfully, had an IUP permit without having an EIA, carried out business in a forest area but did not have a forest release permit, and set up a palm oil processing factory without having a cultivation plantation permit and processing plantation business permits, as well as carrying out plantation businesses which result in damage to forest areas and changes in area functions. Not only that, the companies owned by Surya Darmadi never fulfilled their obligations to the state in the form of reforestation funds, forest resource provisions, and compensation for the use of forest areas from 2004 to 2022. Due to these actions, the state suffered environmental losses for recovery in restoring and reactivating the function of lost forest areas.

Based on the indictment and evidence, the panel of judges read out the verdict on February 23, 2022 and stated that the defendant was proven to have committed a criminal act of corruption which caused state financial losses amounting to IDR 2.6

93 State financial losses can take the form of:

Expenditure of a state/regional resource/wealth (can be in the form of money, goods) that should not be spent;

Expenditure of a state/regional resource/wealth is greater than what it should be according to the applicable criteria;

Loss of state/regional resources/wealth that should be received (including receipts with counterfeit money, fictitious goods);

Receipt of state/regional resources/wealth is smaller/lower than what should be received (including receipt of damaged goods, inappropriate quality);

Emergence of a state/regional obligation that should not have existed;

Emergence of a state/regional obligation that is greater than it should be;

Loss of a state/regional right that should be owned/accepted according to applicable regulations;

State/regional rights received are smaller than what should be.

trillion and state economic losses amounting to IDR 39.7 trillion. The Panel of Judges in its consideration stated that state economic loss is a condition where the value of economic activity decreases due to misallocation of resources, either intentionally or unintentionally, from the value that can be generated from the state's economy. There are at least 4 (four) reasons why the judge stated that there had been losses to the state's economy, namely:

1. Inconsistencies in the use of spatial planning due to plantation businesses in forest areas which incur implicit costs as a result of criminal acts of licensing corruption committed by them. Implicit costs are costs that arise in the form of future losses to society/the state resulting from acts of corruption.

2. The plantation business carried out by the Defendant in the forest area has caused physical changes in the forest area. These physical changes result in a decline in the quality of the environment, economy and forest area.

3. The plantation business carried out does not use partnerships so it does not bring benefits to the prosperity and well-being of all people's lives.

4. Based on research reports and verification results carried out by the Silviculture Department, Bogor Agricultural Institute, the oil palm plantation business carried out by the Defendant in the Indragiri Hulu forest area has caused environmental damage in the form of damage to peat soil and minerals.

The method for calculating state economic losses applied in this case refers to Permen LHK 7/2014 concerning Environmental Losses. The calculation using the Permen LHK was also used by the appellate judge in the Nur Alam case to fulfill the elements of state financial loss.[94]

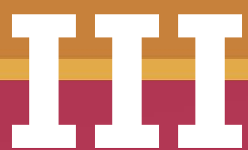
Unfortunately, these two decisions—although rejected by the Cassation Judge—do not confirm that the money calculated as state economic losses in the form of damage to forest areas and changes in the function of areas is used to carry out restoration, and/or handed over to communities who are actually the parties who have suffered losses as a result. change in area function. However, at least this decision can be used

94 Jakarta High Court Decision, Defendant Nur Alam, 16/Pid.Sus-TPK/2018/PT.DKI.

as a "guideline" in linking state losses, confiscation of assets and restoration of the environment damaged by crime (corruption).

Reflecting on natural resource corruption cases decided by the courts, one of the most effective strategies to provide a deterrent effect on the perpetrators is to combine charges under articles of criminal corruption with articles of money laundering. This is intended so that the assets owned by the perpetrator, whether originating or resulting from crime, can be confiscated by the state. The proceeds from this confiscation can be used optimally to restore environmental damage caused by crime.

Constitutional Court Decision 15/PUU-XIX/2021 can be used as a strong legal reason for investigators to combine predicate crimes—including corruption with money laundering crimes, so that efforts to confiscate assets from the start can be carried out.



Challenges of Law Enforcement in Corruption Cases in the Natural Resources Sector

Normative Concept of State Losses Arising Due to Exploitation of Natural Resources or the Environment

One of the consequences of criminal acts of corruption according to applicable law in Indonesia is financial and economic losses to the state. We can find the formulation of this consequence for the first time in Law 3/1971 concerning the Eradication of the Crime of Corruption. Unfortunately, the minutes of discussion or explanation of the law do not explain what is meant by loss to the state's economy. This law only explains the meaning of state finances, namely that it also includes regional finances or legal entities that use capital or concessions from the state and society.[95]

In the initial draft of the Bill to replace Law 3/1971, there was also no definition of the state economy, either in the academic text or the explanation. It was only later that the legislators at the time of ratification of the Eradication of the Crime of Corruption Bill to Law 31/1999 in its general explanation defines the meaning of the State economy, namely economic life which is structured as a joint effort based on the principle of kinship or an independent community business based on Government policy, both at the central and regional levels in accordance with applicable laws and regulations. aims to provide benefits, prosperity and prosperity to all people's lives.

The meaning of the state economy in Law 31/1999 is indeed very broad, abstract and has multiple interpretations. Taufik Rahman et al. (2023) said that the meaning provided by the law is not comprehensive and inaccurate, giving rise to legal confusion. Not only that, the description of the country's economy in the law is also ambiguous, confusing and difficult for law enforcement to implement.[96]

Until now, there has not been a single regulation that provides a clear meaning for the country's economy, including the decision of the Constitutional Court. In this way, space is open for jurists to interpret the law in formulating losses to the state's economy. Previous cases that can be used as a reference include Decision 1166 K./Pid/1985 with the defendant Tony Gozal. Tony was charged with committing an unlawful act of building without permission in state waters which resulted in the state being unable to exploit

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95 For further information, see the minutes of discussion of the Law on the Eradication of the Crime of Corruption, People's Representative Council for Mutual Cooperation, n.d., p. 15.

96 Taufik Rahman et al., 2023, 'Defining State Economic Loss Due to Corruption Within the Indonesian Law: Hurdle and Solution', **Word Journal of Entrepreneurship Management and Sustainable Development,** V19 N1/2 2023, 53-67.

and use it for public purposes.[97]

The next is Decision 1144 K/Pid/2006 with the defendant ECW Neloe. Neloe was charged as the President Director of Bank Mandiri for providing bridging loans unlawfully without paying attention to the principles of prudence in banking and tending to corruption, collusion and nepotism. In its consideration, the panel of judges stated that this action had harmed the state because it had provided a large amount of credit given in conditions of the state and society which needed people's economic development. Implicitly in the two considerations of the panel of judges above, these actions are considered to be acts that are detrimental to the state's economy.

Another decision that mentions the issue of state economic losses is the Palu District Court Decision 09/Pid.Sus/Tipikor/2014/PN.PL with the defendant Muhanis Yahya Beceran, SPd. Muhanis was charged with committing a criminal act of corruption in special allowance funds for remote teachers in 2009-2012 in Tojo Una-Una District. The defendant's actions resulted in losses to the state economy due to reduced welfare of teachers in remote areas.

The decisions above do not clearly explain what is meant by state economic losses, but one thing that can be drawn is that state economic losses are understood as intangible losses suffered by society and the government as a result of criminal acts.

State Economic Losses in Natural Resources and the Environment

The Environmental Protection and Management Law should be seen as an umbrella law for regulations in the natural resources and environmental sectors. This Law is a further explanation of the provisions of Article 28H of the 1945 Constitution of the Republic of Indonesia which states "a good and healthy living environment is a human right and constitutional right for every Indonesian citizen." Therefore, every act in the form of pollution or environmental destruction is considered a prohibited act, because it can have extraordinary impacts such as global warming, flash floods, forest fires, landslides which cause casualties both in humans and the community's economic resources, social facilities and public facilities, apart from that, the decline in the quality of environmental carrying capacity has resulted in various disease endemics.[98]

Further, Muladi stated that in enforcing environmental law general principles apply, namely: (1) The **principle of legality,** containing the principles of legal certainty, clarity

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97 Lilik Mulyadi, 2007, Tindak Pidana Korupsi di Indonesia, Normatif, Teoritis, Praktik dan Masalahnya. PT. Alumni. p. 89. See also Rizki Agung Firmansyah, "Konsep Kerugian Perekonomian Negara Dalam Undang-Undang Tindak Pidana Korupsi," Jurist-Diction 3, no. 2 (2020): 672 and Taufik Rachman and Lucky Raspati, 'Menakar Makna Merugikan Perekonomian Negara Dalam Undang-Undang Tipikor', Nagari Law Review, Volume 4 Number 2 (April 2021), pp. 225-238

98 Muhammad Amin Hamid, 'Penegakan Hukum Pidana Lingkungan Hidup Dalam Menanggulangi Kerugian Negara', **Legal Pluralism**: Volume 6 No. 1, January 2006, pp. 88- 177.

and sharpness in formulating criminal law regulations, especially as far as relating to the definition of environmental crime and the sanctions that need to be imposed so that the perpetrators comply with the norms; (2) **The principle of sustainable development,** emphasizing that economic development should not sacrifice the rights of future generations to enjoy a healthy and good living environment; (3) The **precautionary principle,** emphasizing that if there is a danger or threat of serious and irreversible damage, the lack of scientific certainty should not be used as an excuse to postpone cost effective measures in order to prevent environmental degradation; (4) The **principle of restraint**, which is one of the conditions for criminalization which states that criminal sanctions should only be used if civil sanctions and administrative sanctions and other means are found to be inappropriate and ineffective for dealing with certain criminal acts. In criminal law, there is the principle of subsidiarity or the "*ultima ratio* principle" or the principle of "*ultimum remedium*".[99]

Apart from the four principles above, there is at least one other principle, which is quite important, namely the *Polluter Pays* principle. This principle stipulates that the costs resulting from pollution are borne by the actors responsible for causing the pollution. The Organization for Economic Cooperation and Development (OECD), as the first organization to introduce and accept the polluter pays principle, states that pollutant control efforts involve costs such as alternative costs for implementing anti-pollution policies, management measurement and monitoring costs, research costs, unit technology development, pollution management units, and installation maintenance of waste management units.[100]

To achieve this control, the OECD recommends seven policies, namely a. Direct control; b. Taxation; c. Payment; d. Subsidy; e. Various incentive policies such as tax benefits, credit facilities, and amortization or accelerated debt repayment f. Auction of pollution rights g. Levies.[101] The real application of the polluter pays principle is the allocation of economic obligations related to activities that damage the environment and specifically related to liability, the use of economic instruments and the application of regulations related to competition and subsidies.[102]

On the other hand, natural resources and the environment are important resources under state management, as confirmed in Article 33 Paragraph (3) of the 1945 Constitution of the Republic of Indonesia. This article explains that "Earth and water and the natural wealth contained therein are controlled by the State and used for the greatest prosperity

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99 Muladi, 'Prinsip-Prinsip Dasar Hukum Pidana Lingkungan dalam Kaitannya dengan Undang-undang Nomor 23 Tahun 1997', **Jurnal Hukum Pidana dan Kriminologi**, Volume 1/No. I/1998, p. 1.

100 Malvin Edi Darma and Ahmad Redi, 'Penerapan Asas *Polluter Pay Principle* dan *Strict Liability* Terhadap Pelaku Pembakaran Hutan', **Jurnal Hukum Adigama**,Vol 1, No 1, 2018, p. 7.

101 N.H.T. Siahaan, 2014, Hukum Lingkungan dan Ekologi Pembangunan. 2nd edition, Jakarta: Erlangga, p. 309.

102 Elly Kristiani Purwendah and Eti Mul Erowati, 'Prinsip Pencemar Membayar (*Polluter Pays Principle*) Dalam Sistem Hukum Indonesia', **Jurnal Pendidikan Kewarganegaraan UNSIKSHA**, Volume 9 No. 2, May 2021, pp. 340-335.

of the people."

Before the 1945 Constitution of the Republic of Indonesia was amended, at least the meaning of the Article 33 norm could be seen in its Explanation, which stated:

> Article 33 states the basis of economic democracy, whereas production is carried out by all, for all, under the leadership or ownership of members of society. It is the prosperity of society that takes priority, not the prosperity of individual people. Therefore, the economy is structured as a joint effort based on the principle of kinship. The form of a corporation that is in accordance with that principle is a cooperative. The economy is based on economic democracy, prosperity for everyone. Therefore, branches of production that are important for the state and control the lives of many people must be controlled by the state. Otherwise, the reins of production will fall into the hands of someone in power and the people who are oppressed by them. Only companies that do not control the lives of many people can be in the hands of one person. Earth and water and the natural wealth contained in the earth are the sources of people's prosperity. Therefore, they must be controlled by the state and used for the greatest prosperity of the people.

The explanation of Article 33 of the 1945 Constitution of the Republic of Indonesia above, emphasizes that basically the right to control the state does not only mean that the state has the authority to regulate, but also includes the meaning of public ownership by the people's collectivity of natural resources.

The collective people, constructed by the 1945 Constitution, give the state a mandate to carry out policies (*beleid*) and management actions (*bestuursraad*), regulation (*regelendaad*), management (*beheersbaar*), and supervision (*toezicht houden daad*) for the purpose of maximizing prosperity of the people.[103] This broad concept of state control is at least also supported by the Constitutional Court in the Decision on the Judicial Review Case of Law 22/2001, whose considerations read:

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103 Supanca, 2008, *Laporan Tim Analisa dan Evaluasi Hukum Hak Penguasaan Negara Terhadap Sumber Daya Alam (UU No. 22 Tahun 2001 tentang Minyak dan Gas Bumi)*, Jakarta: PBHN, p. 14.

… the Court must first explain the meaning of "controlled by the state" in Article 33 paragraphs (2) and (3); That by viewing the 1945 Constitution as a system as intended, control by the state in Article 33 of the 1945 Constitution has a higher or broader meaning than ownership in the civil law conception. The concept of control by the state is a public legal conception that is related to the principle of popular sovereignty adopted in the 1945 Constitution, both in the political (political democracy) and economic (economic democracy) fields. In the understanding of popular sovereignty, it is the people who are recognized as the source, owner and holder of the highest power in state life, in accordance with the doctrine "of the people, by the people and for the people". This definition of supreme power also includes the meaning of public ownership by the people collectively. That the earth and water and natural resources contained within the state's legal territory are essentially the public property of all the people collectively who are mandated by the state to control them in order to use them for the greatest possible shared prosperity. Therefore, Article 33 paragraph (3) determines that "earth and water and the natural resources contained therein are controlled by the state and used for the greatest prosperity of the people".

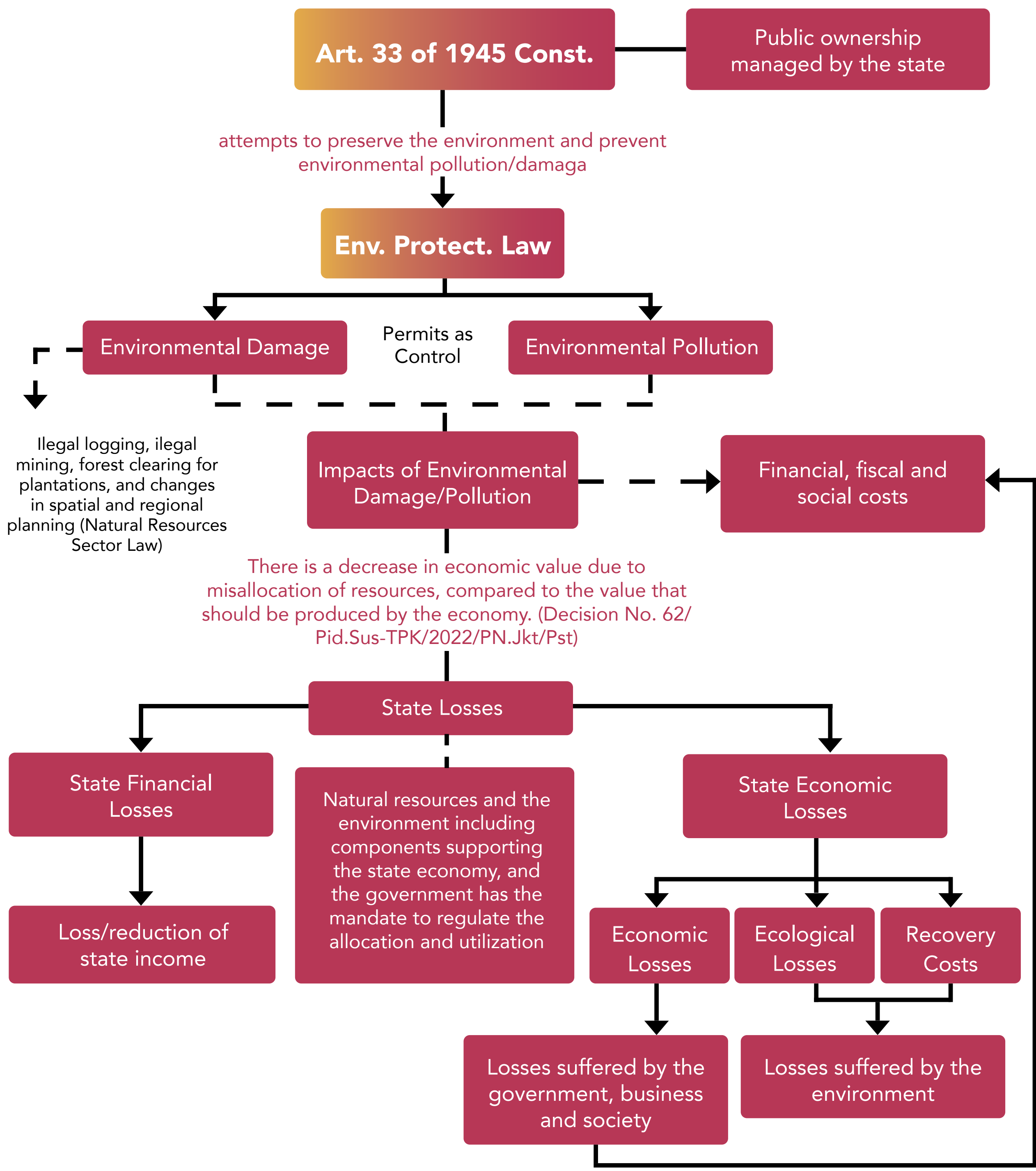
That if the meaning of "controlled by the state" is only interpreted as ownership in the civil (private) sense, then this is not sufficient to use that control to achieve the goal of "greatest prosperity of the people", which thus means the mandate to "advance general welfare" and "realize social justice for all Indonesian people" in the Preamble to the 1945 Constitution is impossible to realize. However, the concept of private ownership itself must be recognized as one of the logical consequences of control by the state which also includes the notion of public ownership by the people's collectivity of the sources of wealth in question. The notion of "controlled by the state" also cannot be interpreted only as the right to regulate, because this is naturally inherent in the functions of the state without having to be specifically mentioned in the constitution. Even if Article 33 is not included in the 1945 Constitution, as is common in many countries that adhere to liberal economic ideology which does not regulate basic economic norms in their constitution, the state itself has the authority to carry out regulatory functions. Therefore, the meaning of "controlled by the state" cannot possibly be reduced to just the state's authority to regulate the economy.

Based on the norms in Article 33 of the 1945 Constitution of the Republic of Indonesia, Natural Resources, including the environment, are part of the state's economy, this is in line with the aims of the state's economy as explained in Law 39/1999 concerning the Eradication of the Crime of Corruption, in its General Explanation states

> … The State Economy is economic life which is structured as a joint effort based on the principle of kinship or an independent community effort based on Government policy, both at the central and regional levels in accordance with the provisions of applicable laws and regulations which aim to provide benefits, prosperity and well-being to all of society's life.

How can one construct that acts of environmental damage or pollution can result in state economic losses? Poor governance of the environment and natural resources in Indonesia has resulted in deep-rooted corrupt practices. Corruption crimes in this sector have an impact not only on the decline of one country's economy, but can even cause disaster for the entire world. According to Chandra Hamzah, losses in corruption crimes are usually calculated based on losses in the state budget, whereas in natural resource corruption crimes, the losses suffered are not only limited to state financial losses in the budget calculations, but also involve environmental losses,[104] including the impact on humans, the natural landscape and biodiversity within. Environmental losses, as mentioned above, will not be felt immediately, but will have long-term impacts, even between generations.

104 Chandra Hamzah, in Workshop on Preparing Module for Investigation and Handling of Corruption Cases in the Land Use and Forest Sector held by ICW on September 14, 2012



By placing natural resources and the environment as objects of exploitation, we are actually heading towards fatal environmental damage and leading to various detrimental natural disasters. State policies that issue business permits haphazardly are also the cause of environmental damage, one of which is the loss of natural forests. At least in 2015-2019 the area of Indonesian forest loss reached 2.81 million hectares. The contribution to deforestation is dominated by forest-rich provinces, reaching 1.85 million hectares, or contributing 65% of the total natural forest loss in Indonesia.[105] For the damage that

105 Koalisi Indonesia Memantau, 2021, *Menatap ke Timur: Deforestasi dan Pelepasan Kawasan Hutan di Tanah Papua*, Februari, 2021, Jakarta, Indonesia. p. 3.

occurs, so far the state is responsible, including carrying out recovery, which is a social cost.

Although the Law on the Eradication of the Crime of Corruption does not further regulate what is meant by loss to the state's economy, we can find this interpretation in other regulations or through previous court decisions. Decision 62/Pid.Sus-TPK/2022/PN.Jkt. Pst is one of the decisions that provides a straightforward understanding of the country's economic losses, namely conditions where there is a decline in economic value due to misallocation of resources, whether done intentionally or unintentionally, of the value that the economy should be able to produce. Considering that the state elements are the public sector, business sector and household sector, which then results in financial costs (costs that are borne by households or the business sector), fiscal costs (costs that are borne by the public sector or state finances), and social costs (combined of financial costs and fiscal costs).[106]

The PPLH Law explains that environmental pollution is the entry or introduction of living things, substances, energy and/or other components into the environment and/or changes in the environmental structure by human activities or by natural processes, so that the quality of the environment becomes reduced or no longer functions. according to its purpose. Meanwhile, environmental destruction is an action that causes direct or indirect changes to the physical and/or biological characteristics of the environment, resulting in the environment being less or no longer functioning in supporting sustainable development. Based on this provision, there are three elements, namely: (1) environmental pollution, (2) environmental destruction, and (3) other acts that violate applicable statutory provisions.[107]

To determine environmental losses/ecological losses, it is necessary to pay further attention to Minister of the Environment Regulation (Permen LHK) 17/2014 concerning Environmental Losses Due to Pollution and/or Damage. Article 1 (2) of this regulation states that ecological/environmental losses are losses arising from pollution and/or damage to the environment which are not private property rights. Based on this understanding, there are two conditions that must be met: (a) the damage or pollution causes losses, (b) not a private property.[108]

1) Losses arising from environmental pollution and/or damage

Environmental quality standards (BML) are instruments used to measure the level of pollution: water, air, sea, waste pollution, while environmental damage standard criteria (KBKLH) are instruments to measure the level of environmental damage

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106 See Decision 62/Pid.Sus-TPK/2022/PN.Jkt.Pst p. 1477.

107 Imam Rofi'i dan Emmalia Rusdiana, 'Kajian Yuridis Pertanggungjawaban Korporasi Terhadap Kerusakan Lingkungan Yang Mengakibatkan Kerugian Negara Dalam Putusan Nomor 2633/K/PID.SUS/2018', **Novum: Jurnal Hukum**, Volume 7 No. 4, October 2020, pp. 140-152.

108 Franky Butar Butar et al., "Mungkinkah Kerugian Lingkungan Akibat Pertambangan dapat Dikategorikan sebagai Tindak Pidana Korupsi", **Proceedings of TPP XXVIII Perhapi**, 2019, p. 4.

: illegal logging, illegal mining, forest clearing for plantations, and changes in spatial and regional planning. In practice, both instruments can be used at the same time, for example in the case of mining which not only damages the natural landscape, but also causes pollution from tailings disposal and air pollution.

2) It is not a private property right

Environmental loss is a matter of public property rights, while civil law is closely related to private/private ownership. This can be interpreted generally as meaning that the environment is public property and the opposite of private property rights. From this description, it can be concluded that damage and/or pollution to goods/objects that are not private property results in environmental losses. So, it was correctwhen the Corruption Eradication Commission accused Nur Alam's actions in granting the IUP of causing environmental pollution and damage which resulted in environmental losses which were later identified as state losses.

Calculation of losses due to environmental pollution and/or damage is generally extensive. Extensive Economics is an economic value based on ecocentrism, which will include unlimited value because ecosystems cannot be created by humans, so if environmental damage occurs to the ecosystem it will be destroyed or difficult to restore (irreversible).[109]

Extensive economic valuations are generally minimalist and limited due to limited human knowledge in assessing the economics of the ecosystem. In general, environmental economic valuation due to environmental damage includes three components, namely economic loss, environmental restoration and ecological loss.[110]

Loss to the country's economy is a condition where there is a decrease in the value of economic activity due to misallocation of resources, either intentionally or unintentionally, from the value that should be produced by the economy. Considering that the elements of the state are the public sector, business sector and household sector. The concept of a country's economy is related to two fundamental concepts in economic theory, namely (1) The concept of implicit costs or benefits of an activity, and (2) Explicit costs and benefits, namely costs or opportunity benefits that occur in the country's economy as a result of an economic activity enjoyed or borne by economic actors.

If the environment is linked to economic losses, a conclusion can be made that natural resources and the environment are components that support the country's economy, and the government has the mandate to regulate their allocation and use. The government

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109 Joe Jusua Pamungkas Pattiwael, 'Kerugian Ekologis Akibat Tindak Pidana Korupsi', **Rechtens Journal,** Volume 10, Number 1, June 2021, pp. 27-42.

110 Basuki Wasis, 2019, 'Penghitungan Kerusakan Ekologis dari Daya Rusak Pertambangan Sebagai Kerugian Keuangan Negara, Departemen Silvia Umum Fakultas Kehutanan', **Paper**, Institut Pertanian Bogor: Bogor, p. 2

must regulate and manage it carefully, so that it does not cause impacts, one of which is through the licensing process. If the management is not appropriate and causes impacts (pollution/damage), it will disrupt the country's economy. Acts of damage or pollution to the environment can be considered to have harmed the state's economy, because the state must bear the burden of recovery for the damage and pollution. Based on these conditions, it would be logical if demands for restoration of environmental conditions resulting from acts of destruction/pollution could be carried out.

Orientation of the Law Enforcement in Handling Corruption Cases in the Natural Resources Sector

Discussing the orientation of law enforcement in handling corruption cases cannot be separated from the criminal policy. Criminal policy is a rational effort by society in dealing with crime.[111] Marc Ancel it is called the rational organization of the control of crime by society. The main objective of criminal policy according to Barda Nawawi Arief is the protection of society to achieve social welfare.[112] The authors believe, following Barda Nawawi Arief, that the society includes victims and perpetrators, meaning that the protection that is the goal of criminal policy is not only the community, but also including the environment, which is the victim, and the community as the perpetrator.

Based on the above, there are at least two issues that are central in criminal policy, namely: (1) What actions should be made into criminal acts, and (2) What sanctions should be used or imposed on the perpetrator.[113] Regarding criminal sanctions, Herbert L. Packer said that sanctions play an important role in ensuring that criminal acts do not recur, as explained in his book *The Limits of Criminal Sanction*, namely:[114]

1. The criminal sanction is indispensable; we couldn't, now or in the foreseeable future, get along without it
2. The criminal sanction is the best available device we have for dealing with gross and immediate harm and threats of harm
3. The criminal sanction is at once prime guarantor and prime threatener of human freedom. Used providently and humanely, it is a guarantee; used indiscriminately

111 Sudarto, 1981, *Hukum dan Hukum Pidana*, Bandung: Alumni, p. 38

112 Barda Nawawi Arief, 2011, *Bunga Rampai Kebijakan Hukum Pidana: Perkembangan Penyusunan Konsep KUHP Baru*, Kencana Prenada Media Group: Jakarta. p. 4.

113 Muladi dan Barda Nawawi Arief, 2010, *Teori-Teori dan Kebijakan Pidana*, PT Alumni: Bandung, p. 160.

114 Harbert L. Packer, 1968, *The Limit of Criminal Sanction*, California, Stanford University Press, pp. 364-366.

and coercively, it is threatening.

Packer's statement at least explains that criminal sanctions are absolutely necessary, and are the best means available to deal with crime, as well as being the main guarantee against crimes that occur. Thus, the determination of sanctions must be linked to the crime and the impact of the crime. If the crime is economically oriented, then the imposition of sanctions must be in the form of confiscation of proceeds and profits. If the crime has an impact, then the sanctions must correct the impact of the crime.

Regarding the application of sanctions in criminal policy, we need to look at the concept of punishment. Packer stated that there are two conceptual views, each of which has different moral implications from one another, namely the retributive view and the utilitarian view.[115] The retributive view assumes punishment as a negative reward for deviant behavior committed by members of the community so that this view sees punishment only as retaliation for mistakes committed on the basis of their respective moral responsibilities. This view is said to be backward-looking.

The utilitarian view looks at punishment in terms of its benefits or usefulness, where what is seen is the situation or circumstances that are intended to be produced by the imposition of the sentence. On the one hand, punishment is intended to improve the attitude or behavior of the convict and on the other hand, punishment is also intended to prevent other people from possibly committing similar acts. This view is said to be forward looking and at the same time has preventative properties.[116]

Punishment theories also develop according to the development of crime and its impact. One fairly new theory is the "Justice Model" as a modern justification for punishment put forward by Sue Titus Reid. The justice model, also known as the justice approach or *just dessert* model, is based on two theories about the purpose of punishment, namely prevention and retribution. The basis of retribution in the just dessert model assumes that violators will be assessed with sanctions that they deserve considering the crimes they have committed, appropriate sanctions will prevent criminals from committing crimes again and prevent other people from committing crimes. In this just dessert scheme, perpetrators of the same crime will receive the same punishment, and perpetrators of more serious crimes will receive harsher sentences than perpetrators of lighter crimes.[117]

Considering that the corruption that occurs in the natural resources and environmental sectors is carried out by white collar crime, the aim of punishment and sanctions needs to be adjusted, namely to restore the situation/restore balance and minimize losses experienced by the state. This concept remembers that environmental damage losses in cases of corruption in the environment and natural resources sector cannot be separated from the concept of Article 33 Paragraph (3) of the 1945 Constitution of the Republic of Indonesia.

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115 *Ibid.*, p. 9

116 *Ibid.*, p. 10.

117 Sue Titus Reid, 1987, *Criminal Justice, Procedure and Issues,* West Publishing Company, New York, p. 352.

From the sanctions and objectives of this punishment, we can find that in handling corruption cases in the natural resources and environmental sectors, the orientation of law enforcement should look at how asset confiscation and recovery of damage can be carried out. This action can only be taken if losses to the state's economy are one of the impacts that must be proven by law enforcement.

As mentioned in the previous section, the calculation of the country's economic losses has begun to be carried out by the Corruption Eradication Commission (KPK) in the Nur Alam licensing corruption case, and by the Prosecutor's Office in the Surya Darmadi (PT Duta Palma) licensing corruption case. To facilitate the law enforcement process, in preparing the indictment the Public Prosecutor needs to pay attention to the use of the Money Laundering Law as a combination and include calculations of state economic losses based on scientific evidence.

IV

Actualization of Ecological Loss Aspects as Calculation of State Losses in Corruption Cases

Expanding the Meaning of State Losses in Ecological Damage After Constitutional Court Decision 25/PUU/XIV/2016

The aspect of ecological loss as financial or economic loss to the state is a crucial issue for law enforcement for criminal acts of corruption in the natural resources sector. In several natural resource corruption cases, losses such as logged lumber, mining yields or other ecological damage caused by corrupt practices have not been optimally recovered for the state. While in several natural resource corruption cases, calculations of ecological losses have been attempted, the environmental justice aspect expected in law enforcement has not been achieved.

One of the issues that is often associated as an obstacle to determining ecological losses as financial or economic losses to the state in corruption cases is Constitutional Court Decision 25/PUU/XIV/2016. This decision deletes the word "can" before the phrase "harm the state's finances or economy", which means that state financial losses must occur in real terms (actual loss), not potential loss. There are at least several critical notes regarding this decision.[118]

First, there is an inconsistency with a previous decision, namely Constitutional Court Decision 003/PUU-IV/2006 where the consideration of the Constitutional Court judge states that the word "can" does not at all determine whether or not there is legal uncertainty which causes an innocent person to be sentenced to a corruption crime. This previous ruling even emphasized that elements of state financial loss must be proven and must be able to be calculated by experts, even if it is an estimate or even though it has not yet occurred.

Second, linking state financial losses in corruption cases with state losses in the context of government administration is not entirely relevant. In the context of state financial losses from criminal acts of corruption, there are other elements that must be proven as well as differentiating them from an administrative violation. Especially when referring to Article 4 of Law 31/1999 on the Eradication of the Crime of Corruption which states that returning losses to state finances or the state economy does not eliminate the

118 PUKAT FH UGM-KPK RI, 2020, Studi Valuasi Aset Negara dan Penghitungan Kerugian Keuangan Negara.

responsibility of perpetrators of criminal acts of corruption.

Third, the paradigm shift from potential loss to actual loss has the potential to hamper substantive justice in law enforcement for criminal acts of corruption. In cases of corruption in the natural resources sector, losses often occur not only limited to actual shortages of money or goods, but also state losses in the form of environmental damage or loss of natural resources that have already been exploited as a result of corrupt practices.

Constitutional Court Decision 25/PUU/XIV/2016 has had the implication of hampering efforts to impose ecological losses on perpetrators of natural resource corruption, for example, in the CPO export corruption case involving several officials at the Ministry of Trade and a number of company officials. The judge in this case decided that in relation to some of the alleged losses—namely losses from the social costs of corruption in the form of economic impacts on the business sector and households as well as state losses by calculating illegal profits received by companies—were not considered as losses to the state's economy that could be calculated in real and definite terms.

Likewise in the corruption case in clearing lands for oil palm in forest areas involving Surya Darmadi. At the courts of first instance and appeal, the judges accepted the claim for economic losses argued by the public prosecutor. The losses considered by judges at the first and appeal courts include state income rights that are not received from the use of forest resources in the form of forest resource provisions, reforestation funds, fines for exploiting forest stands, fees for using forest areas and state losses incurred by utilization of forest resources due to irregularities in transferring forest areas for plantation business activities which is calculated from the costs of restoring land and environmental damage.[119] However, at the cassation level, the ecological losses previously considered as state economic losses amounting to IDR 39.75 trillion were canceled on the grounds that the calculation of losses did not meet the real and certain principles based on Constitutional Court Decision 25/PUU/XIV/2016.

In another case, namely corruption in mining permits involving the former Governor of Southeast Sulawesi, the judge at the court of first instance determined that an amount of money gained by the company PT. Billy Indonesia is a financial loss to the state because its mining permit was obtained through corrupt criminal practices. But unfortunately, at the cassation level at the Supreme Court, this consideration was cancelled. Even thought there was no direct mention of calculation of real and definite losses, the judge was of the opinion that the company's profits did not constitute state finances because they were not managed directly by SOE/ROE and the mining permit had never been administratively cancelled—even though it was proven that there were corrupt practices in granting the permit.

On the other hand, there have also been several cases of natural resource corruption that have been concluded with elements of causing harm to state finances based on the exploitation of resources through a corrupt licensing process. For example, the case of

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119 Decision 62/Pid.Sus-TPK/2022/PN.Jkt.Pst

corruption in forest utilization permits in Riau involving Rusli Zainal (Governor of Riau), Tengku Azmun Jaafar (District Head of Pelalawan), Arwin AS (District Head of Siak), Syuhada Tasman (Head of Riau Province Forestry Service 2003/2004), Asral Rahman (Head of Riau Provincial Forestry Service 2004/2005), and Burhanuddin Husin (Head of Riau Provincial Forestry Service 2005/2006). This case relates to the granting of IUPH HKHT to 20 companies, including 15 companies in Pelalawan District and 5 companies in Siak District.[120] In this case, the judge decided on state financial losses based on the BPKP's calculations, that state financial losses came from the value of natural forest logging yields by several companies that had received permits, after deducting the Forest Resources Provision and Reforestation Fund deposits that had been paid.

In another case, a sand quarrying corruption case in Lumajang was decided by a judge by considering the element of state financial loss in the form of sand obtained without the support of adequate permit requirements. Siswo Sujanto, as the expert presented in the case, said that the amount of state losses was the value of assets (rights) which should not be separated from state power, but in reality they were separated and controlled/owned by other parties unlawfully. The expert's testimony gave the judge confidence to assess the state's financial losses in this case based on the value of assets in the form of iron sand, whose exploitation should not be separated from state control, deducted with the costs the company had paid to the state such as production fees and customs fees. The judge also sentenced one of the defendants who was the main director of the mining company to compensate for the loss to the appropriate amount.[121]

In these cases mentioned above, it is seen that there are still gaps in handling corruption cases related to natural resource losses. Even though there are several obstacles, opportunities to promote the aspect of environmental justice are still quite open. In the context of using a state financial loss approach, it is very important for law enforcers to establish that natural resources are part of state finances/wealth. This is because state finances as referred to in the explanation of Law 31/1999 on the Eradication of the Crime of Corruption has a broad scope as all state assets in any form,[122] whether separated or not separated, including all parts of state assets and all rights and obligations arising from:

1. being under the control, management and accountability of state agency officials, both at the central and regional levels;

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120 https://jikalahari.or.id/kabar/rilis/kpk-segera-tetapkan-20-korporasi-sebagai-tersangka-korupsi-kehutanan-riau/31/

121 Decision : 94/Pid.Sus/TPK/2016/PN.Sby

122 Compare this with the meaning of state finances within the scope of the State Finance Law, which is only limited to the scope of: a. the state's right to collect taxes, issue and circulate money, and make loans; b. the state's obligation to carry out state government public service duties and pay third party bills; c. State Revenue; d. State Expenditures; e. Regional Revenue; f. Regional Expenditures; g. state assets/regional assets managed by themselves or by other parties in the form of money, securities, receivables, goods, and other rights that can be valued in money, including assets separated from state companies/regional companies; h. assets of other parties controlled by the government in the context of carrying out government duties and/or public interests; i. wealth of other parties obtained by using facilities provided by the government.

2. being under the control, management and accountability of SOE/ROE, foundations, legal entities and companies that include state capital, or companies that include third party capital based on an agreement with the state.

Natural resources are part of the assets of state control authority as referred to as state finances in the statutory regime for criminal acts of corruption. Thus, if in the release or granting of a permit there is an unlawful act, abuse of authority, bribery, or other elements of a criminal act of corruption that have a causal relationship with the loss or reduction of natural resources from state control, the wealth should be categorized as a state financial loss.[123] Thus, this means that tree stands, biodiversity or other mining products that are lost or reduced, as long as they are caused by an act that has causality with elements of a criminal act of corruption can be used as a basis for demanding compensation for state financial losses as a criminal sanction.

The challenge for law enforcers to achieve this is to ensure that corruption charges are also directed at the beneficiaries of state financial losses in the form of natural resources. Bearing in mind that if the criminal compensation amount is at least equal to the wealth obtained from the proceeds of criminal acts of corruption, even if the state financial loss has been determined, it is possible that the loss cannot be recovered if the defendant is not the beneficiary of the benefits from the use of natural resources. For example, the forest logging corruption case in Riau involving Rusli Zainal,[124] as well as the first level decision and appeal of the nickel mining corruption case involving Nur Alam.[125] In both cases, even though the judges stated that there had been state financial losses from natural resources, the penalty for compensation could not be applied because the beneficiaries of the natural resources proceeds in the corruption cases, namely corporations, were not charged with criminal acts of corruption.

Restoring ecological losses can also be done by using state economic losses as an element in criminal acts of corruption. The state economy in Law 31/1999 on the Eradication of the Crime of Corruption is defined as "economic life structured as a joint effort based on the principle of kinship or an independent community effort based on Government policy, both at the central and regional levels in accordance with the provisions of applicable laws and regulations which aim to provide benefits, prosperity and well-being to all people's lives." Unfortunately, the element of harm to the economy in criminal acts of

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123 Totok Dwi Diantoro et al., 2022, Penghitungan Kerugian Keuangan Negara dalam Korupsi Sumber Daya Alam, PUKAT FH UGM-KPK RI

124 See the judge's considerations in Decision 50/Pid.Sus/Tipikor/2013/PN.PBR that based on the facts revealed before the trial as described above the defendant was not proven to have obtained property from the criminal act of corruption in the context of assessing and ratifying the BK UPHHKHT against the 9 (nine) companies mentioned above, all assets resulting from criminal acts of corruption are received and enjoyed by companies that have received BK UPHHKHT approval by the defendant, so that in this case the defendant does not need to be burdened with the additional penalty of paying compensation money.

125 See the judge's considerations in Decision 123/Pid.Sus-TPK/2017/PN Jkt.Pst. that the judge at the first and appeal levels only charged Nur Alam with compensation for the amount of money received as a gratification and did not impose costs for state financial losses which were argued to be the profits of PT. Billy Indonesia.

corruption still has limited explanation. The explanation of the concept of state financial losses is currently much more developed than the concept of state economic losses.[126]

One of the judge's considerations in cases of criminal acts of corruption which are charged with causing harm to the country's economy can be seen in Decision 53/Pid.Sus-TPK/2020/PN.Jkt.Pst. This is a textile import corruption case that ensnared Kamaruddin Siregar. In his considerations, the judge rejected evidence of elements detrimental to the state's economy by considering that:

> […] elements that are detrimental to the state's economy, although it is true that these criminal elements are contained in the law, in this case the application of elements that are detrimental to the state's economy is considered to be excessive because it still requires in-depth study by economic experts to find the right methodology. and can be used to measure the existence of losses to the country's economy […].

Even though in his considerations the judge rejected the argument of state economic losses, these considerations actually show that the concept of the state economy is very likely to be applied. As long as the state implements policies that regulate in detail the accurate parameters for state economic losses, as well as agreed standard methods for calculating state economic losses, the opportunity to calculate ecological losses as state economic losses becomes very possible in a real and certain way (actual loss).

Methods of Proving Ecological Losses in Calculating State Losses in a Number of Cases of Corruption in the Natural Resources Sector

The evidentiary system is a regulation regarding the types of evidence that may be used, the description of the evidence and the way in which the evidence is used and the way in which the judges must form their belief.[127] The importance of evidence is no less than an effort to find material truth, in contrast to civil procedural law which is completed with formal truth alone.

126 Corruption Eradication Commission, Menggagas Perubahan UU Tipikor: Academic Paper and Draft Proposed Changes, 2019, Jakarta

127 Hari Sasangka and Lily Rosita, 2003, *Hukum Pembuktian dalam Perkara Pidana,* Mandar Maju: Bandung, p. 11.

The provisions of evidence to this day still refer to the Criminal Code, where in Article 183 of the Criminal Procedure Code it is stated "A judge may not sentence a person to a crime unless, with at least two valid pieces of evidence, they are convinced that a criminal act has actually occurred." and that the Defendant was guilty of doing so. This proof is known as the negative evidence theory (*negatief wettelijk bewijstheorie*).[128] KUHAP explains evidence in Article 184, consisting of (1) witness statements, (2) expert statements, (3) letters, (4) instructions, (5) defendant's statements.

Evidence of guidance in formal law for criminal acts of corruption is not only built through evidence as regulated in Article 188 paragraph (2) of the Criminal Procedure Code, but is expanded as explained in Article 26A of Law 20/2001, namely: (1) Other evidence in the form of information spoken, sent, received, or stored electronically with an optical device or something similar, and (2) Documents, namely any record of data or information that can be seen, read, and/or heard which can be produced with or without the help of a means, whether written on paper, any physical object other than paper or recorded electronically in the form of writing, sound, images, maps, designs, photos, letters, signs, numbers or perforations that have meaning.

The expansion of evidence can provide greater space for law enforcement to trace the results obtained by criminals, for example documents of ownership of land, vehicles, shares, crypto assets, transfer of company ownership, and other assets. In other words, this expansion will make it easier for law enforcers to prove criminal acts, and the nexus between criminal acts and assets. Thus, confiscation of tangible or intangible movable property or immovable property used for or obtained from criminal acts of corruption, including companies owned by convicts where criminal acts of corruption were committed, as well as the price of goods that replace these goods, can be carried out.

Using this expanded evidence can also be used by law enforcers to present scientific evidence to prove the consequences of the Defendant's actions as can be found in the judge's consideration of the Nur Alam corruption case. The judges are of the opinion that the method for calculating state financial losses can be scientifically justified. If connected to the theory of criminal evidence, this expert opinion can be called scientific evidence presented based on a person's expertise in the judicial process. Through such evidence, the amount of state losses becomes clear and detailed.[129]

In prosecuting cases of criminal acts of corruption, especially in the natural resources and environmental sectors, the use of scientific evidence is not yet familiar. The first case that counted environmental damage as a state economic loss was Nur Alam's licensing corruption. As governor, Nur Alam issued Decree of the Governor of Southeast Sulawesi 828/2008 concerning Approval of Mining Area Reserves for PT. AHB, backdated to

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128 Lilik Mulyadi, 2007, Asas Pembalikan Beban Pembuktian Terhadap Tindak Pidana Korupsi Dalam Sistem Hukum Pidana Indonesia Dihubungkan Dengan Konvensi Perserikatan Bangsa-Bangsa Anti Korupsi 2003, **Dissertation summary**, Faculty of Law of Padjadjaran University: Bandung, p. 6.

129 Hariman Satria, 'Perluasan Makna Kerugian Keuangan Negara Dalam Korupsi Izin Usaha Pertambangan', **Jurnal Yudisial** Vol 13 No. 2 August 2020, pp. 165-186.

December 31, 2008, to avoid having to obtain mining business permits through an auction as mandated by Law 4/2009 concerning Mineral and Coal Mining. As a result of the illegal permit issued by Nur Alam, environmental damage and required restoration amounted to IDR 2,728,745,136,000. Thus, the recovery costs due to environmental damage result in large-scale losses for the state and the region.[130]

The calculation of state losses in the form of environmental damage and recovery costs in this case is not based on the results of the BPKP audit, but refers to the results of the environmental audit conducted by IPB Forestry Expert Dr. Basuki Wasis, M.Sc. According to the expert, the state economic losses are in the form of land and environmental damage, including recovery costs, due to mining activities that arise from the illegal licensing process.

Calculating the state's economic losses due to environmental damage uses the approach of Permen LHK 7/2014. According to the Regulation, there are three cost components that can be calculated due to environmental damage, namely the cost of ecological losses, the costs of economic losses and the costs of environmental restoration.

Another case that could become a discourse in determining ecological damage as a calculation of state economic losses is Surya Darmadi. Law enforcers build arguments for state economic losses based on scientific evidence from forest protection experts, environmental damage experts and state economic experts.

Rimawan Pradiptyo, a state economic expert, stated that based on the results of an analysis of the calculation of the social costs of corruption and illegal profits from cases of corruption and money laundering related to PT Duta Palma's illegal land by the Economics and Business Research and Training Center (P2EB) of the Faculty of Economics and Business, there had been losses to the state's economy. The losses are in the form of:[131]

1. Government Losses

Land that should be utilized as forest, with all its benefits, turns out to be illegally converted for plantations and agriculture. The government lost the right to land allocation and space allocation on the land in that location, so that the government was unable to carry out optimal land allocation for the welfare of the community.

Illegal land transfer creates negative externalities that burden households and businesses in the area in the form of reducing the carrying capacity of the environment. Without land transfer, the environment around forests and rivers provides supporting capacity for households and businesses in the area. The loss of forests to illegal oil palm plantations

130 *Ibid.*

131 See further Decision 62/Pid.Sus-TPK/2022/PN.Jkt.Pst. pp. 1123-1132.

disrupts the quality of rivers, the availability and quality of water, and environmental changes occur so that the environmental carrying capacity for households decreases drastically.

Illegal land transfer also causes land conflicts with surrounding communities. Land conflicts generally occur in the long term. Conflict forces the Government to spend the necessary resources to overcome conflict and bridge conflict resolution.

Illegal land transfer certainly creates negative externality costs because environmental quality decreases. Existing damage must be repaired so that environmental quality can be restored (recovery cost).

2. Losses to Business and Households

Negative externalities occur due to illegal land transfer resulting in a decrease in environmental carrying capacity along with environmental recovery costs for illegally converted land. The decline in environmental quality around oil palm plantation areas appears in the form of a decline in soil quality, quality and availability of water for both bathing and drinking water. The decline in household income around the plantation area is because the company does not implement smallholder oil palm at all (regulations allocate 20% of the area for smallholder oil palm).

Based on the two decisions and several existing laws and regulations, calculations of ecological damage as a loss to the country's economy must be carried out, and can only be done using a scientific evidence approach by assessing damage to natural resources and environment from acts of corruption.

The entry point for law enforcement in cases of corruption in the natural resources-environmental sector is the assessment of damage to natural resources and the environment. In several countries, this assessment process is regulated in special laws regarding environmental pollution and/or damage. As in the Comprehensive Environmental Response and Liability Act (CERCLA)[132] and the Oil Pollution Act (OPA)[133] in the United States and Directive 2004/35/CE concerning Environmental Liability with Regard to the Prevention and Remedy of Environmental Damage[134] in the European Union.

132 42 USC § 9607.

133 33 USC § 2702.

134 Directive 2004/35/CE, OJ L 2004 143/56.

Table 3. Stages of Natural Resources and Environmental Damage Assessment Based on CERLA and OPA[135]

CERLA	OPA
Pre-Assessment Phase The pre-assessment stage includes notifications, coordination, activities in emergency situations, and a pre-assessment screen.	**Pre-Assessment phase** This process aims to determine whether the damage that occurred was under the authority of the guardian/ official appointed in the OPA.
Assessment Phase At this stage, the damage is determined (Injury Determination phase), quantified (Quantification phase), and the loss determined (Damage Determination phase). At the stage of determining losses, authorized officials must make a Restoration and Compensation Determination Plan.	**Restoration Planning Phase** This stage consists of two major steps, namely injury assessment and creating a restoration plan
Post-Assessment Phase At this stage a recovery plan is prepared based on the Restoration and Compensation Determination Plan.	

The calculation of ecological losses/environmental losses can refer to the concept contained in the Permen LHK 7/2014, by taking into account losses due to exceeding the standard criteria for environmental damage (KBKLH), losses for compensation for the

135 Rika Fajriani dan Debby Thalita Nabila Putri, 2022, *Modul Pelatihan: Penerapan Pidana Tambahan Perbaikan Lingkungan Hidup Akibat Tindak Pidana Bagi Jaksa*, Jakarta: Auriga Nusantara, p. 29.

costs of action, losses for compensation for mitigation costs, and ecosystem losses (taking into account the duration of environmental damage that occurs. This loss is calculated from the time the damage occurs until restoration is completed so that ecosystem losses are the same as interim losses. This calculation certainly cannot be done for all cases of environment and natural resources corruption, depending on the criteria and type of case, it is possible that losses in the forestry sector will be different from losses in the plantation sector or in the mining sector.

Variables in Developing Methods for Calculating State Losses in Natural Resources Corruption Cases

A. State Financial Losses and Environmental Damage

The definition of state finances is stated in Article 1 point 1 of Law 17/2003 concerning State Finances, what is meant by state finances are all state rights and obligations that can be valued in monetary terms, as well as everything in the form of money or goods that can be made property of the state in connection with the implementation of these rights and obligations. This definition is almost the same as the definition of state finances in Article 1 point 15 of Law 15/2006 concerning the Financial Audit Agency and also Article 1 number 22 of Law 1/2004 concerning the State Treasury, that state or regional losses are a shortage of money, securities and goods, which are real and definite in amount as a result of unlawful acts whether intentional or negligent.

Meanwhile, Law 20/2001 concerning Amendments to Law 31/999 concerning the Eradication of the Crime of Corruption (UU Tipikor) defines state finances as all state assets in any form, whether separated or not separated, including all state assets and all rights and obligations arising from: (1) being under control, management and accountability of state officials at both central and regional levels; (2) is under the control, management and responsibility of SOE/ROE, foundations, legal entities and companies that include state capital, or companies that include third party capital based on an agreement with the state.[136]

From this understanding, it can at least be identified that the concept of state finances is based on two main elements, namely object and subject elements. The object element refers to the scope of state finance which includes all state rights and obligations that can be valued in monetary terms. Meanwhile, the subject element emphasizes that all

136 General explanation of the Corruption Law.

rights and obligations that can be valued in money are under the control, management, or at least responsibility of government units which in fact are representatives of the state.

Regarding state losses, the Financial Audit Agency (BPK) manual explains that this is a reduction in state assets caused by an unlawful act/negligence of a person and/or caused by circumstances beyond expectations and beyond human capabilities *(force majeure)*.[137] Furthermore, the BPK also explained that in the matter of state losses, the first thing that needs to be researched and collected is evidence to determine the extent of losses suffered by the state where the claim for compensation for its return is not greater than the amount of losses actually suffered.

The BPK's understanding emphasizes that the amount of state losses should not be determined as an estimate. Another definition of state loss is contained in the guidebook published by BPKP, which defines state financial/wealth loss as a state loss which is not only real, that is, what has actually occurred, but also potential, that is, which has not yet happened, as is the case. state income that will be received and so on.[138]

In terms of criminal acts of corruption, Article 32 paragraph (1) of the Corruption Law does not provide a clear definition of state losses, but explains that

> "In the event that an investigator finds and is of the opinion that there is insufficient evidence for one or more elements of a criminal act of corruption, even though there has actually been a loss to the state's finances, then the investigator immediately submits the case files resulting from the investigation to the State Attorney for a civil lawsuit or handed over to the agency aggrieved to file a lawsuit."

The explanation in the Corruption Law regarding "a real state loss" is a loss whose amount can be calculated based on the findings of the authorized agency or appointed public accountant.

The perspective of criminal acts of corruption after the Constitutional Court Decision 25/PUU-XIV/2016 interprets that state financial losses must actually occur (actual loss). In this context, this means that the reduction in state finances is an event that has occurred as a result of an unlawful act due to deliberate factors with awareness of the choice of action. BPK Regulation 1/2017 concerning Financial Audit Standards emphasizes the connection between unlawful acts and intentional actions by stating that state losses can be detected through deviations from statutory provisions, fraud and abuse.

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137 Indonesian Financial Audit Agency, *Petunjuk Pelaksanaan Tuntutan Perbendaharaan dan Tuntutan Ganti Rugi*, (Jakarta: Sekretariat Jenderal BPK RI, 1983), pp. 30-34.

138 BPKP, PSP: *Petunjuk Pelaksanaan Pemeriksaan Khusus atas Kasus Penyimpangan yang Berindikasikan Merugikan Keuangan/Kekayaan Negara dan/atau Perekonomian Negara*, June 1996, p. 3.

Regarding environmental losses, so far there is no clear reference for viewing environmental losses as state financial losses, except through the definition provided by the Directorate General of State Assets (DJKN). DJKN defines that state assets are all forms of biological and non-biological wealth in the form of tangible and intangible objects, both movable and immovable, which are controlled and/or owned by the state. The subject of state wealth is then divided into three, namely:[139]

a. The subject of state assets controlled are potential state assets which are divided into the agrarian/land sectors, agriculture, plantations, forestry, mining, minerals and coal, oil and gas, marine and fisheries, water, air and space resources, energy, geothermal, and other national wealth.

b. The subject of state assets owned are state/regional goods, namely tangible goods, intangible goods, movable goods, immovable goods originating from purchases or acquisitions at the expense of the state/regional budget and other legitimate acquisitions.

c. The subject of state assets separated are state capital participation in a SOE/ROE, regional government capital participation in a SOE/ROE, state assets in other legal entities, and state assets in international institutions.

From this definition, the environment is included in state assets, namely potential state assets so that environmental losses can be included in state financial losses as intended by the Corruption Law. State financial losses in the environmental sector are not only from losses that actually occur (visible) but also massive and long-term environmental damage and therefore, environmental losses can be used to calculate state losses.

In the explanation of Article 90 paragraph (1) of PPLH Law, environmental losses are defined as losses arising from environmental pollution and/or damage which are not private property rights. PPLH Law also states that government agencies and regional governments responsible for the environmental sector have the authority to file claims for compensation and certain actions against businesses or activities that cause environmental pollution and/or damage resulting in environmental losses.[140] As a derivative of this, Permen LHK 7/2014 concerning Environmental Losses Due to Environmental Pollution and/or Damage provides the same definition of environmental losses.[141] Permen LHK

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139 DJKN Media News, "*Beda Keuangan Negara dan Kekayaan Negara*", https://www.djkn.kemenkeu.go.id/berita_media/baca/6817/Beda-Keuangan-Negara-dan-Kekayaan-Negara.html accessed on January 15, 2023.

140 Article 90 paragraph (1) PPLH Law.

141 Article 1 paragraph (2) Permen LHK 7/2014.

7/2014 explains that environmental losses include:[142]

a. losses due to exceeding Environmental Quality Standards as a result of non-fulfillment of all or part of the obligations for waste water treatment, emissions and/or management of hazardous and toxic waste;

b. losses for reimbursement of costs for implementing Environmental Dispute Resolution, including costs for: field verification, laboratory analysis, experts and supervision of implementation of payments for environmental losses;

c. losses to compensate for the costs of dealing with pollution and/or environmental damage as well as environmental restoration; and/or

d. loss of ecosystem.

Determination of the occurrence of environmental pollution and/or damage is measured through Environmental Quality Standards and/or Standard Criteria for Environmental Damage and evidence can be made based on the results of studies or expert information if the Environmental Quality Standards, Standard Criteria for Environmental Damage, and/or parameters in detail have not been determined by the government.[143]

B. Environmental Loss Variables and Use of Scientific Evidence

To calculate the amount of loss due to environmental damage, an environmental loss assessment is needed. This valuation is to assist efforts to prosecute environmental crimes such as illegal logging, wildlife trafficking, forest encroachment and corruption. The valuation also has the potential to strengthen prosecutions, prevent criminal acts from occurring, guarantee compensation to injured parties, and restore damaged natural resources.[144] Environmental valuation identifies a number of diverse and complex values that can be conceptualized in various ways, including:[145]

a. Direct use values: resources for extraction, water services, recreation and tourism;

b. Indirect use values: climate regulation, physical protection;

142 Article 3 Permen LHK 7/2014.

143 Article 45 paragraph (1) Permen LHK 7/2014

144 Jacob Phelps et al., *"Valuasi Lingkungan di Indonesia: Implikasi pada Kebijakan di Kehutanan, Pertanggungjawaban Hukum dan Estimasi Kerugian Negara"*, CIFOR Brief No. 32, October 2014, p. 1

145 *Ibid.*, p. 2

c. Non-use values: option value (e.g. willingness to pay), existence value (e.g. value of knowing the existence of a resource);

d. Intrinsic values: values that are not related to human use.

Environmental valuation in Indonesia is reflected in several efforts made by the government to apply calculation standards to determine the value of natural resource losses, for example with Permen LHK 7/2014, Permen LHK 15/2012 concerning Guidelines for Economic Valuation of Forest Ecosystems, Minister of Environment Decree 210/2004 concerning Standard Criteria and Guidelines for Determining Mangrove Damage, PP 150/2000 concerning Control of Soil Damage for Biomass Production, and so on.

The concept of valuation, or conceptualized as calculation of environmental losses in Permen LHK 7/2014, explains that calculating compensation for environmental pollution and/or damage is the provision of a monetary value for the impact of pollution and/or environmental damage. The monetary value of environmental economic losses is also the economic value of environmental losses that must be paid to parties who are harmed by parties who pollute and/or damage the environment. Based on the changes that occur, estimates can be made of the impacts that will arise as a basis for determining the monetary value. The results of calculating this monetary value are the value of environmental losses which will then become feedback for the use of natural resources and the environment.

In general, environmental economic valuation due to environmental damage includes three components, namely (1) ecological losses, (2) economic losses and (3) environmental restoration.[146] Furthermore, environmental pollution and/or damage will give rise to various types of costs and losses which can be classified as:[147]

a. Liability Fees

Environmental pollution or damage can occur due to non-compliance by companies or individuals with statutory provisions for processing waste and preventing environmental damage. Therefore, they are required to realize their obligations by building waste water processing facilities, complying with the Air Pollution Index and building other installations in accordance with statutory provisions, thereby incurring liability costs. The costs incurred for this purpose are borne by entrepreneurs or individuals who have the interest in carrying out their activities.

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146 Basuki Wasis, *"Penghitungan Kerusakan Ekologis dari Daya Rusak Pertambangan Sebagai Kerugian Negara"*, paper delivered in workshop held by JATAM, WALHI, and CSO on July 15-17, 2019, p. 5.

147 *Ibid.*, p. 8.

b. Verification and Monitoring Costs

In many cases, environmental pollution and/or damage often occurs as a result of accidents, negligence, or by purpose. The certainty of the occurrence of pollution and/or environmental damage requires the government's active role in carrying out verification and supervision until the problem of pollution and/or environmental damage is resolved. For this reason, the government incurs costs that must be reimbursed by business actors/activities that cause environmental pollution and/or damage.

c. Environmental Mitigation and Recovery Costs

When environmental pollution and/or damage occurs, immediate action needs to be taken to overcome the pollution and/or damage that has occurred so that the pollution and/or damage can be stopped and does not get worse. This action can be carried out by business actors and/or by the government. If the government carries out actions to overcome pollution and/or damage and has incurred costs for these actions, then the entire amount of these costs can be billed to the business actor and/or activity and is obliged to pay them.

d. Environmental Loss Value

When the environment becomes polluted and damaged, various environmental impacts will arise which are the result of contamination or damage to the ecosystem. This pollution and damage to the environment includes the public environment (government) and the environment related to the rights and authority of the community, both individually and as a group. The economic value of all impacts of pollution and/or environmental damage must be calculated, so that a complete value of environmental losses is obtained. For example, if there is an oil leak from a tanker, the marine ecosystem will become polluted. The next impact could be damage to coral reefs, damage to mangrove forests or damage to seagrass beds, so that fish productivity in all types of ecosystems is reduced.

Mangrove forests that function as coastal protectors from the onslaught of waves are also decreasing, the capacity of forests as spawning grounds and fish farming is decreasing, carbon uptake by mangrove forests is also decreasing. Likewise, if natural forests are damaged or cut down, various environmental impacts will arise in the form of loss of forest capacity to hold water and provide water management, loss of ability to withstand erosion and flooding, loss of forest capacity to prevent sedimentation, loss of forest capacity to absorb carbon, loss of habitat for biodiversity, and even forests that are cut down if burned can increase greenhouse gas (CO_2) emissions. In relation to environmental losses to individual communities or groups of people, an example is the pollution of pond environments where individual communities carry out activities in cultivating milkfish ponds. With pollution, not only the milkfish cultivation business is disturbed, but also the ecosystem or pond environment, including soil quality

and water quality.

The value of the damages mentioned above must be calculated according to the magnitude of the damage and the length of the damage's impacts. Then, the value of this damage is added to the costs of obligations and costs of verifying estimates of environmental pollution and/or damage, costs of mitigating and/ or restoring the environment and is added to the value of community losses arising from damage to one or more ecosystems.

e. Community Loss Value

What is meant by community is a society of individuals and as a group of people. Environmental pollution and damage as described above will have side effects in the form of losses to the community due to damage to assets such as fishing equipment, damage to plantations and agriculture, damage to fish ponds, as well as loss of community income, and so on.

The damage to fishing equipment and fish ponds means that some or all of the community's sources of income in the fisheries sector will be partially or completely disrupted. Likewise, if a farm or plantation or livestock is damaged so that it really harms farmers and livestock breeders, then all these losses must be calculated and it is appropriate to ask for compensation.

Article 4 Permen LHK 7/2014 requires that environmental loss calculations be carried out by experts in the field of environmental pollution and/or damage and/or environmental economic valuation. This expert is appointed by echelon I officials whose duties and functions are responsible for compliance with environmental law at the Central Environmental Agency or echelon II officials at Regional Environmental Agencies based on evidence of having conducted research and/or evidence of having experience. This calculation is carried out using the calculation procedures that are regulated in the attachment to Permen LHK 7/2014. The results of the calculation will later be used as an initial assessment inside or outside the court. For calculations carried out by experts, it is highly likely that there will be changes in values. This can be influenced by technical and non-technical factors, including:[148]

a. Technical Factors

1) Duration of time of Environmental Pollution and/or Damage;

2) Volume of pollutants that exceeds Environmental Quality Standards;

3) Parameter of pollutants that exceeds Environmental Quality Standards;

4) Land area and distribution of environmental pollution and/or

148 Article 6 Permen LHK 7/2014

damage; and/or

5) Status of damaged land.

b. Non-Technical Factors

1) inflation; and/or

2) government policy.

Apart from environmental valuation, efforts to provide value for environmental damage can also be done through the use of scientific evidence. The use of scientific evidence in environmental cases is one of the characteristics that differentiates it from other cases. The rules regarding evidence in environmental crime cases are contained in Article 96 of PPLH Law, which consists of witness statements, expert statements, letters, instructions, and defendant statements. However, what also differentiates environmental cases from other cases is that PPLH Law recognizes other evidence, including evidence regulated in statutory regulations. In the explanation of Article 96 letter f, other evidence includes information that is spoken, sent, received, or stored electronically, magnetically, optically, and/or similar; and/or evidence of data, recordings, or information that can be read, seen, heard, which can be released with and/or without the help of a means, whether written on paper, any physical object other than paper, or recorded electronically, not limited to writing, sounds or images, maps, designs, photographs or the like, letters, signs, numbers, symbols or perforations that have meaning or that can be understood or read.

In its development, scientific evidence is considered to have been accommodated by the phrase "other evidence" in the formulation of Article 96 of PPLH Law.[149] The recognition of scientific evidence is reaffirmed by the existence of the Decree of the Chair of the Supreme Court of the Republic of Indonesia 36/KMA/SK/II/2013 concerning Implementation of Guidelines for Handling Environmental Cases which was later revoked and replaced with Perma 1/2023.

Perma 1/2023 defines scientific evidence as an explanation of the relationship between two or more components or elements in the environment presented in written form by an expert based on the results of research or scientific results with or without an explanation before the court. Scientific evidence can be in the form of: [150]

a. expert testimony at trial;

b. expert opinion stated in written form;

c. laboratory test results;

d. research results report;

149 Fachrizal Afandi et al., *"Penggunaan Bukti Ilmiah dan Penerapan Prinsip Kehati-hatian dalam Putusan Perkara Pidana Materiil Lingkungan Hidup di Indonesia Tahun 2009-2020"*, Jurnal Hukum Lingkungan Indonesia, Vol. 9 No. 1, October 2022, p. 78.

150 Article 20 Perma 1/2023.

e. forensic results, including environmental, forest and wildlife forensics; and/or

f. other evidence in accordance with the development of science.

In the process of examining scientific evidence, the judge will consider the accuracy of the method and validity of the sampling procedure by taking into account laboratory accreditation and expert opinions from both parties.[151] Information obtained from evidence of environmental crimes must be verified scientifically using certain methods to determine the material truth in a case which will assist the judge in deciding the case fairly for the parties to the dispute.[152]

The variable of expert witnesses and scientific evidence in determining the calculation of state financial losses in the environmental sector plays an important role because in the trial process, the judge will test the relevance of this matter in accordance with science and has been accepted by the relevant scientific community, the existence of publications that have been used as a reference in the scientific community; and/or there has been peer review regarding the scientific theories and methods used. The expert report contains the following:[153]

1. Conveying criteria for environmental damage that has occurred and environmental hazards resulting from environmental damage (prevention of harm);
2. Conveying the duration or length of time the ecosystem or environment will recover if it is damaged (Sustainable Development: Precautionary Principle); And
3. Providing a complete picture of losses due to environmental damage (Polluter Pays Principle).

In order to prove forest and environmental damage, the following elements must be met, including a) normative juridical provisions; b) expert testimony; and c) laboratory analysis results.[154] Making an expert statement in cases of environmental damage is very important for evidence in court and contains scientific evidence in the form of field observations, analysis of damage in the field, and analysis of laboratory test results.[155] This expert statement is the basis for creating an expert report (BAP). In the end, the BAP will be presented in court so that there is a transformation from scientific evidence data to legal evidence.

Specifically, in the application of scientific evidence, judges in conducting examinations must apply the precautionary principle, which means that the judge must prioritize

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151 Article 43 (1) and Article 72 (1) Perma 1/2023.

152 Afandi et al., *op.cit.*, p. 79.

153 Basuki Wasis in a Scientific Oration of Tenured Professor of the Faculty of Forestry and Environment, IPB University on November 26, 2022 at Graha Widya Wisuda IPB University entitled *"Bukti Ilmiah dalam Penegakan Hukum Kasus Kerusakan Hutan dan Lingkungan Hidup"*.

154 *Ibid.*

155 *Ibid.*

saving the environment when deciding on criminal restitution for defendants in cases that threaten serious environmental damage that cannot be restored even if there is doubt and uncertainty. of scientific evidence in court. This is in line with the principle of *in dubio pro natura*, which means prioritizing the interests of environmental protection in environmental criminal decisions.

This precautionary principle is also stated in Article 47 paragraph (1) of Permen LHK 7/2014, which requires case examining judges to apply this principle in accordance with Article 2 letter f of PPLH Law if there is uncertainty in proving causality and impact in environmental cases. In applying the precautionary principle, the case examining judge considers the following matters:

a. there are serious and potentially irreversible threats, both threats to the environment and to the human health of current and future generations;

b. there is scientific uncertainty in determining the causal relationship between activities/businesses and their impact on the environment; and

c. efforts to prevent environmental damage are given priority even though such prevention efforts require greater costs than the initial costs of the activity/business plan.

C. State Financial Losses in Corruption of Natural Resources Extraction

The implications of ignoring the calculation of state losses for the value of lost natural resources has the potential to cause two losses at once, namely that the state does not receive a refund of the value resulting from corruption and instead burdened with overcoming social costs, including the environment, which has been damaged by corruption.[156]

Activities that occur in the natural landscape for various extractive activities such as the mineral and coal industry are types of industry that are vulnerable to the impact of environmental damage they cause, starting from the production process to the waste they produce.[157] These activities have extraordinary destructive power because they remove fertile land surfaces, disrupt water systems, and distribute risks to surrounding communities. Conversion of forest land for mining activities can also hamper the function of forests as a source of life.[158]

The complex mining process starts from clearing forest areas, drilling rocks to crush

156 Muhamad Muhdar, *"Rekonstruksi Basis Perhitungan Kerugian Negara dalam Peristiwa Tindak Pidana Korupsi Pada Sektor Sumber Daya Alam"*, Jurnal de Jure, Vol. 12 No. 1, April 2020, p. 45.

157 Examination of the Corruption Criminal Verdict in the PLTU Riau Case -1 ICW Examination page 82

158 Basuki Wasis, *op. cit.,*

covering material such as limestone, to the use of heavy equipment in all stages of the process resulting in changes in topography, loss of forest vegetation and the topsoil layer, decreasing content of important nutrients and organic matters, changes in the soil density, pH, soil temperature, and decreased soil microbial diversity.[159] Apart from that, the consolidation of interests between state officials, politicians and mining businesses is also a very high risk of corruption. This makes calculating state financial losses in the natural resources/environmental sector difficult and vulnerable to political content because it is influenced by asymmetric statements regarding the interests, involvement, strength and votes of the parties.[160]

For example, coal mining, as an extractive natural resource energy source, is done with the process of eliminating or at least reducing the value of other natural resource components, such as the loss of soil volume, soil fertility, clean water sources, standing trees, flora and fauna.[161] Apart from that, coal mining is also a contributor to water pollution, CO_2 levels, and social risks. Even though there is an obligation to restore through reclamation and revegetation schemes, the actual value has been reduced, and will never even approach the initial condition before mining activities were carried out.[162]

Referring to Permen LHK 7/2014, the concept of compensation in cases of environmental damage due to mining of gold, iron sand, coal, nickel, bauxite, class C excavations on land, protected areas, forest areas and conservation areas uses an approach based on the *Full Cost Principle: Modified Baseline* approach, the compensation component including 3 components, namely ecological loss costs, economic loss costs and ecological restoration costs.

In detail, the cost variables that are taken into account in calculating state financial losses include the costs of reviving the water system function, the costs of regulating the water system, the costs of controlling erosion and runoff, the costs of soil formation, the costs of lost nutrients, the costs of waste decomposition functions, the costs of biodiversity restoration., genetic recovery costs, carbon release costs, and so on.

From the perspective of criminal acts of corruption, the absence of linear rules regarding the meaning of state finances, state losses, or state financial losses when dealing with the natural resources sector makes it difficult to apply the calculation of loss values, especially regarding "lost" environmental values. Moreover, the shift from formal offenses to material offenses in the Corruption Law has the implication that the losses suffered must actually occur.

Ultimately, in the trial process, the court's decision will depend and be based on the judges' belief in assessing the extent to which environmental losses can be considered as state financial losses based on expert witness testimony and scientific evidence. Judges must adhere to the principle of prudence and the principle of *in dubio pro natura* by

159 *Ibid.*

160 Jacob Phelps et al, *op. cit.*, p. 4.

161 *Ibid.*

162 *Ibid.*

believing that the data presented by expert witnesses through calculating environmental loss variables shows that there is a value of damage to the environment that must be borne by the state in the future because of the costs of environmental restoration. and social matters will become a burden on the state.

Based on the discussion above, within the framework of environmental losses, legal breakthroughs are needed because the posture of state financial losses in the realm of criminal science when linked to corruption in the natural resources sector is not comprehensive and adequate to punish perpetrators of criminal acts of corruption in the natural resources sector. The calculation method and its variables must be reformulated based on the idea that the protection of natural resources and the environment is not only a public good but also a joint ownership of the Indonesian people as mandated by the constitution which states that the earth, water and natural resources contained therein are controlled by the state. for the greatest prosperity of the people.

V

Epiloque

Conclusions

Based on the results of the discussion as described above, it can be concluded that the social losses from criminal acts of corruption, in principle, cannot be measured only by how much state money is corrupted. Moreover, losses also need to include loss of output due to misallocation of resources, distortion of incentives and other inefficiencies caused by corruption. This includes corruption in the natural resources sector, especially the environment and mining, which has a negative impact on income distribution and ecological damage.

Because, as explained, ecological damage can occur when natural resources are in a state-owned natural resources ownership regime. Where the state has great authority to transfer management rights through permits or concessions to business entities. Meanwhile, the practice that often occurs is that the paradigm of permit or concession holders is only oriented towards extraction and sees natural resources only as commodities. The vulnerability of granting permits or concessions to corruption increasingly results in ecological losses occurring on a large scale and having long-lasting impacts.

Unfortunately, law enforcement in corruption cases in the natural resources sector has not been able to restore environmental damage to its original condition, as it was before environmental pollution or damage occurred. This is caused by a shift in the paradigm of state losses from potential loss to actual loss as decided by the Constitutional Court regarding the review of Article 2 paragraph (1) of the Corruption Law in Decision 25/PUU/XIV/2016. A number of corruption cases, such as corruption in the export of crude palm oil (CPO), to the corruption case in clearing oil palm land in forest areas involving Surya Darmadi, where the judge rejected the ecological calculations by the Public Prosecutor based on considerations of the Constitutional Court's decision.

In fact, natural resources are an inseparable part of the assets under the authority of state control as referred to in state finances in the Corruption Crime Law regime. In other words, the granting of permits or concessions involving unlawful acts, abuse of authority, bribery, has a causal relationship with the loss of natural resource utilization from state control. This means that this wealth should have been categorized as a state loss.

In the end, ignoring ecological losses, as if it were not an important component in the valuation of state losses due to corruption in the natural resources sector, will result in two losses at once, on the one hand the state will not get a return for the proceeds of corruption crimes, and at the same time, the government will bear the burden of overcoming social costs, including environmental improvements resulting from the management of natural resources obtained from the proceeds of corruption.

Recommendations

Based on the conclusions outlined above, there are a number of recommendations that should be carried out by a number of relevant stakeholders, including:

1. Apart from identifying suspected perpetrators of corruption who can be held accountable for their actions, law enforcement officials, including the Prosecutor's Office, Police and Corruption Eradication Commission, must also determine the extent of the ecological losses that arise as a result of these criminal acts of corruption. In this case, law enforcement must be more careful in using expanded evidence by presenting scientific evidence to show the existence of a cause-and-effect relationship between corruption and environmental damage that occurs afterwards;

2. In order to facilitate the ecological restoration process, the preparation of indictments by the Public Prosecutor (both the Prosecutor's Office and the Corruption Eradication Commission) must pay attention to the use of the Money Laundering Crime Law as a combination and include calculations of state economic losses based on scientific evidence. Apart from making things easier, this is done so that the assets owned by the perpetrator, both originating and proceeds from crime, can be confiscated by the state;

3. The government, through the Ministry of Environment and Forestry and the Ministry of Energy and Mineral Resources, must play an active role in encouraging law enforcement performance to ensure that the ecological loss component can be evaluated as a state loss by carrying out verification, inventory, including regular monitoring of corruption cases in the natural resources sector., including mining;

4. The Supreme Court must immediately evaluate the performance of judges who handle cases of criminal acts of corruption in the natural resources sector, and make improvements in the future so that judges have an ecological perspective by adhering firmly to the principle of prudence and the principle of *in dubio pro natura*, and believing that the data submitted by expert witnesses through calculations of ecological variables shows that there is a value of damage to the environment that must be borne by the defendant in a criminal act of corruption.

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