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Article

Organized Crime in the Trade of Endangered Fauna: A Study of Environmental Law and Criminal Law Policies and Their Enforcement in Indonesia

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Abstract: This study examines the environmental and criminal law policies in force in Indonesia, as well as the effectiveness of law enforcement in dealing with organized crime related to the trade in endangered fauna. Although existing regulations such as Law Number 5 of 1990 concerning Conservation of Natural Resources and Ecosystems and Law Number 32 of 2009 concerning Protection and Management of the Environment have regulated the protection of endangered fauna, this study found that its implementation in the field still faces various challenges, including weak coordination between law enforcement agencies, lack of human resources and technology, and limitations in enforcing criminal sanctions. Using the "deterrence theory" and "collaborative governance theory" approaches, this study analyzes how criminal sanctions and cross-sectoral cooperation can improve the effectiveness of law enforcement against organized crime. The results of the study show that although the criminal sanctions regulated are quite strict, their effectiveness is still weak due to the lack of certainty of enforcement and low collaboration between agencies. This study also highlights the importance of the role of local communities (Customary Institutions) and monitoring technology to support efforts to conserve endangered fauna in the TNKS area. This study provides strategic recommendations to strengthen law enforcement through increased inter-agency coordination, the use of more sophisticated monitoring technology, and expanding international cooperation to address organized crime networks operating across borders.

Keywords: Organized Crime; Trade in endangered fauna; Criminal law; Environmental law; Deterrence and Collaborative Governance.

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1. Introduction

llegal wildlife trade is a serious problem that threatens biodiversity in Indonesia. Indonesia is a country rich in rare fauna such as the Sumatran tiger as a top predator, pangolin, pig-nosed turtle and others are protected animals. These animals face an increasing threat of extinction due to high international market demand and weak supervision and law enforcement (Shepherd et al., 2020). Illegal wildlife trade not only disrupts the balance of the ecosystem but also harms the country economically and reduces its international reputation (Gian E et al,.2020). Many rare fauna are traded illegally because they have high economic value, such as for medicinal ingredients, ornaments, or as exotic pets (Roe, 2019). Meanwhile, according to UNODC. (2020) The trade in rare fauna has a significant impact on the survival of certain species. This activity often results in a decrease in the population in its natural habitat and risks extinction if not properly controlled. Based on the report of the Ministry of Environment and Forestry (KLHK). 2022) Many wildlife species, such as tigers, rhinos, and elephants, are threatened with extinction due to illegal hunting and trade. This was later confirmed by the Natural Resources Conservation Agency (BKSDA). 2020) The trade in rare fauna has a major impact on biodiversity. According to BKSDA, this activity has caused a decline in the population of rare animals in their natural habitat, even causing some species to experience local extinction (BKSDA, 2020).

Similarly, illegal capture of animals and the opening of new land areas which are in essence the habitat of rare fauna in conservation areas such as Kerinci Seblat National Park (TNKS), which functions as a tropical forest area and the lungs of the world. TNKS, which covers the area of Renah Pemetik Village in Kerinci, is one of the important conservation areas that is a habitat for more than 4,000 types of flora and 350 types of fauna, including rare species such as Sumatran tigers, pangolins, and pig-nosed turtles. The existence of TNKS, which has been recognized as a World Heritage, requires maximum protection efforts for the rare animals in it. Jeremy H et al. (2003) in his research stated that Kerinci Seblat National Park (TNKS) is the largest conservation area which is a habitat for the Asian tapir (Tapirus indicus).

The results of a three-year biodiversity survey show that TNKS is one of the remaining important areas for the survival of the Asian tapir. Evidence of the presence of tapirs was obtained through the use of camera traps, recording signs of tapir presence, and interviews with local communities. Camera traps were installed in four locations, each representing a different type of forest. Another key protected animal is the Sumatran tiger as a top predator that plays an important role in balancing the ecosystem in Indonesia. "In addition, law enforcement problems are often exacerbated by well-organized transnational crime networks, which exploit gaps in regulation and supervision. Therefore, a collaborative approach is needed between the government, the community, and international organizations to address this problem."

Meanwhile, according to Reko D. S. (2018) Kerinci Seblat National Park (TNKS) is a conservation area that has rich biodiversity and has been recognized globally as a World Heritage Site. Kerinci Seblat National Park (TNKS) is the largest national park in Sumatra, this is based on the Decree of the Minister of Forestry and Plantations Number 901/KPTS-V/1999 concerning the Determination of the Kerinci Seblat National Park Area on October 14, 1999, which stipulates a National Park Area of 1,375,347,867 ha which includes Renah Kemumu Village and Tanjung Kasri Village. (Wikipedia.com accessed October 14, 2024). Since the determination of the two villages above as the Kerinci Seblat National Park Area, the Ministry of Forestry has legally and formally claimed the area as a forest area that is prohibited for anyone to carry out any activities without the Minister's permission. Based on Law Number 41 of 1999 concerning forestry, TNKS management is carried out by the government while respecting the rights of indigenous peoples. However, efforts to protect TNKS are often ignored. There are many challenges faced in maintaining TNKS, such as illegal logging, burning, ecosystem damage, and hunting of rare fauna which are then traded in the area. Therefore, a government policy is needed regarding the protection of TNKS with a sustainable development approach (Reko D. S. 2018).

Based on the Law on Prevention and Combating Organized Crime in the Trade of Endangered Fauna, the Indonesian government seeks to strengthen protection of endangered fauna through stricter criminal sanctions and better coordination between agencies. Although various efforts have been made to combat the trade of endangered fauna and ecosystem damage in environmental areas, the effectiveness of law enforcement in Indonesia still faces a number of challenges. Specific problems faced are weak coordination between agencies, lack of resources to monitor the activities of exterminating endangered fauna, and limited application of criminal sanctions that should be able to provide a deterrent effect on perpetrators of crimes (Lee et al., 2005; Adhiasto et al., 2023). The existence of organized crime syndicates operating across countries also complicates efforts to eradicate the illegal trade, so a more comprehensive and synergistic approach is needed.

This study uses the theory of "deterrence" and the theory of "collaborative governance" to solve the existing problems. The theory of "deterrence" states that the application of severe and certain penalties can prevent individuals or groups from committing crimes, in this case the trade in endangered fauna. The application of criminal sanctions and economic fines in the Law on the Prevention and Eradication of Organized Crime in the Trade in Endangered Fauna is expected to provide a deterrent effect on perpetrators (Thaharah, 2023). Meanwhile, the theory of "collaborative governance" emphasizes the importance of cooperation between the government, law enforcement agencies, and international

organizations in dealing with cross-border problems, which is relevant in the context of illegal wildlife trade in Indonesia (Jiao et al., 2021). Although regulations have been strengthened, as stipulated in Law No. 5 of 1990 concerning the conservation of natural resources and their ecosystems and Law No. 32 of 2009 concerning Environmental Protection and Management, this study found several gaps between policies and implementation in the field. First, the effectiveness of criminal sanctions is still low due to the lack of resources in law enforcement, resulting in many violators not being prosecuted firmly. Second, cooperation between government agencies and international organizations is still limited, resulting in gaps in supervision and prosecution of cross-border wildlife trade networks (Lubis, 2017; Broussard, 2017).

This study proposes a solution in the form of strengthening coordination through a special "task force" mechanism involving various stakeholders and increasing the capacity of monitoring technology to track the movement of illegal wildlife. This study aims to analyze the implementation of the Law on the Prevention and Combating of Organized Crime in the Trade of Endangered Fauna and Environmental Law in Indonesia and evaluate its effectiveness in providing a deterrent effect to perpetrators. The novelty of this study lies in the holistic approach that not only assesses the effectiveness of the application of criminal law, but also examines the role of cross-sectoral (institutional) cooperation and monitoring technology in reducing illegal wildlife trade. This study is expected to provide new understanding of how the integration of criminal sanctions and cross-sectoral collaboration can improve the effectiveness of law enforcement.

Organized Crime in Illegal Wildlife Trade has become one of the biggest threats to biodiversity in Indonesia. This country, especially in the natural habitat of rare fauna, is home to various species that play an important role in the ecosystem, such as the Sumatran tiger as a top predator, pangolins, and pig-nosed turtles.

Organized Crime is a criminal activity carried out by groups that have a hierarchical structure, and are organized in the long term to gain profit from illegal activities. According to Hagan (2022), organized crime is different from ordinary crime because it has a well-organized organization, has a clear hierarchy, and often involves strategies to avoid law enforcement. As explained by Abadinsky (2021), organized crime groups often use bribes and threats to gain support from government officials and law enforcement officers, making it easier for them to catch and trade rare fauna.

The trade in rare fauna is the activity of buying and selling, exchanging, or moving endangered animal species or those with limited populations in the wild. This trade can be legal or illegal, depending on the regulations in force in certain countries and the conservation status of the species being traded. Many rare fauna are traded illegally because they have high economic value, such as for medicinal purposes, decoration, or as exotic pets (Roe, 2019). Meanwhile, according to UNODC, 2020 The trade in rare fauna has a significant impact on the survival of certain species.

This activity often results in a decline in the population in its natural habitat and risks extinction if not properly controlled. Similarly, the report of the Ministry of Environment and Forestry (KLHK). 2022) many wildlife species, such as tigers, rhinos, and elephants, are threatened with extinction due to illegal hunting and trade. Then it was also emphasized by the Natural Resources Conservation Agency (BKSDA). 2020) The trade in rare fauna has a serious impact on biodiversity. According to BKSDA, this activity causes a decline in the population of rare animals in their natural habitat, even causing some species to experience local extinction (BKSDA, 2020).

This illegal wildlife trade is a serious threat to biodiversity in Indonesia, especially in conservation areas such as Kerinci Seblat National Park (TNKS), which functions as a tropical forest area and the lungs of the world. TNKS, which includes Renah Pemetik in Kerinci, is one of the important conservation areas that is a habitat for more than 4,000 types of flora and 350 types of fauna, including rare species such as the Sumatran tiger as a top predator, pangolin, and pig-nosed turtle. The existence of TNKS which has been recognized as a World Heritage requires maximum protection efforts for the rare animals in it.

However, international market demand for wildlife, whether for exotic pets, traditional medicine, or luxury products, has driven an increase in illegal trade activities that threaten the survival of these species (Shepherd et al., 2020). These trade activities not only cause ecological losses, but also harm the country economically and damage Indonesia's reputation in the eyes of the international community as one of the countries with the largest biodiversity in the world.

Indonesia has taken strategic steps to combat illegal wildlife trade, including through the implementation of the Law on the Prevention and Combating of Organized Crime in the Trade of Endangered Fauna. This law aims to provide stronger legal protection for endangered fauna through the enforcement of heavier criminal sanctions and strengthening coordination between law enforcement agencies (Thaharah, 2023). However, implementation in the field still faces various challenges, including weak coordination between agencies and limited resources to monitor this illegal trade (Lee et al., 2005; Adhiasto et al., 2023). This study uses two main theories as the basis for analysis, namely "deterrence theory" and "collaborative governance theory". These two theories were chosen because of their relevance in addressing the problem of law enforcement against wildlife trade crimes in Indonesia.

The theory of “deterrence” explains that imposing strict, severe, and consistent punishments can reduce the tendency of individuals or groups to violate the law. In the context of wildlife trade, the application of severe criminal penalties and economic fines is expected to provide a deterrent effect for perpetrators (Thaharah, 2023). The Law on the Prevention and Eradication of Organized Crime in the Trade in Endangered Fauna regulates prison sentences and fines for those found guilty of committing this crime, with the aim of reducing the level of violations.

“Collaborative governance” is an approach that emphasizes the importance of cooperation between the government, non-governmental organizations, local communities, and international actors to address complex public problems. In the context of wildlife trade in Indonesia, this theory highlights the need for synergy between various parties to strengthen law enforcement and monitor cross-border trade activities (Jiao et al., 2021). The implementation of “collaborative governance” is expected to increase the effectiveness of law enforcement by utilizing resources and expertise from various institutions and organizations.

Based on the theory of "deterrence", it is expected that strict criminal sanctions will reduce the number of wildlife trade crimes. However, research shows that many perpetrators still do not receive appropriate punishment due to weak supervision and lack of resources in the law enforcement system (Lee et al., 2005).

The theory of "collaborative governance" suggests that strong cooperation between the government, international organizations, and local communities can increase the effectiveness of law enforcement. The involvement of various stakeholders is expected to close the gaps that are often exploited by organized crime networks. However, in practice, inter-agency coordination in Indonesia still often experiences obstacles (Lubis, 2017; Broussard, 2017).

The main gap found in the literature is the difference between existing legal provisions and their implementation in the field. Although Law No. 5 of 1990 and other regulations have been strengthened with heavier sanctions, the effectiveness of their enforcement is still influenced by limitations in supervision and the lack of adequate cross-sectoral (institutional) cooperation. In addition, there are challenges in dealing with organized crime syndicates that operate across countries, thus requiring a more integrative approach (Adhiasto et al., 2023).

2. Materials and Methods

This study uses an empirical approach, which aims to explore in depth the implementation of environmental law and criminal law policies in handling organized crimes related to the trade in endangered fauna and illegal logging in Indonesia. This study was

conducted by focusing on the reality of law enforcement practices in the field, as well as evaluating the effectiveness of policies based on the direct experience of research subjects.

3. Results

The results of the study show that although the Law on Prevention and Combating of Organized Crime in the Trade of Endangered Fauna and Law Number 5 of 1990 concerning Conservation of Natural Resources and Ecosystems and Law Number 32 of 2009 concerning Protection and Management of the Environment, have regulated severe criminal sanctions for perpetrators, the effectiveness of their implementation in the field is still inadequate (Interview. 2024). "This is due to limited resources and the capacity of investigators in handling complex cases involving transnational crime networks" (Interview. 2024). Many wildlife trafficking cases stop at the initial investigation stage due to lack of sufficient evidence to prosecute the perpetrators in court. In addition, coordination between institutions such as the police, the Ministry of Environment and Forestry, and the Natural Resources Conservation Agency (BKSDA) is still not optimal, thus hampering the process of handling cases effectively (Adhiasto et al., 2023; Lee et al., 2005). Meanwhile, in the discussion and interview section, the analysis shows that the lack of coordination and law enforcement capacity can be improved through the application of the theory of 'collaborative governance'.

Several communities also explained that: "Sometimes the killing of rare fauna such as tigers occurs because the fauna has disturbed community activities or has entered the community's residential area" (Interview. 2024).

Community institutions also emphasized: "Better cooperation between the government, organizations, and local communities (Customary Institutions) can increase the effectiveness of law enforcement against illegal wildlife trade and illegal logging" (Interview. 2024).

Therefore, it is hoped that there will be a central role from the authorities to ensure that rare fauna are in their natural habitat, so that they do not interfere with the activities and residential areas of the community. In addition, legal certainty is also expected regarding the residence of community residents, so that community residents can settle in the right place based on the law and not open land illegally, especially in the TNKS area as the natural habitat of hundreds of rare fauna.

The implementation of collaborative mechanisms such as the formation of an integrated task force and integrated training for law enforcement officers can reduce obstacles in handling cross-border wildlife trade cases. In addition, the application of the theory of 'deterrence' shows that increasing legal certainty through more consistent enforcement of criminal sanctions can provide a stronger deterrent effect on perpetrators of crimes (Jiao et al., 2021; Thaharah, 2023)."

4. Discussion

This discussion focuses on an in-depth analysis of environmental and criminal law policies implemented to combat the trade in endangered fauna and the effectiveness of their enforcement in Indonesia, using deterrence and collaborative governance theories as an analytical framework.

4.1 Organized Crime in the trade of endangered fauna

Organized crime can be defined as a crime committed by a group that has a certain structure and organization with the aim of obtaining financial or material benefits, often through illegal activities such as smuggling, human trafficking, and trade in endangered animals (Ferna Lukmia, 2020; Yoshua et al., 2016). This activity not only involves perpetrators at the local level but also includes coordinated international networks to facilitate their operations and avoid detection by law enforcement (FATF/OECD, 2020).

Organized crime in the context of environmental law and fauna protection is regulated in Law No. 5 of 1990 concerning the Conservation of Biological Natural Resources and Ecosystems and in various regulations related to environmental law. According to Articles 21 and 40 of Law No. 5 of 1990, organized crime includes actions such as the illegal

taking, trading, transporting, and utilization of protected animal species. These acts are often carried out by structured networks with a clear division of tasks, from hunters to those who manage smuggling and distribution to international markets (Law No. 5 of 1990). In this case, acts that violate the law not only have an impact on the local ecosystem but also trigger cross-border problems that require international coordination and cooperation (FATF, 2020).

Meanwhile, according to environmental law, especially as stated in Law No. 32 of 2009 on Environmental Protection and Management, this crime is considered a serious form of crime that can disrupt the balance of the ecosystem and cause significant ecological losses. (Law No. 32 of 2009; FATF, 2020)

Endangered fauna are animal species whose populations are very limited and are at high risk of extinction, both in their natural habitat and globally. According to Law No. 5 of 1990 concerning Conservation of Natural Resources and Ecosystems, rare fauna are included in the category of protected animals because their numbers are small and their habitats are increasingly threatened by human activities such as poaching and habitat destruction (Law No. 5 of 1990, Article 5). This law aims to ensure the preservation and protection of rare animals in Indonesia so that they do not become extinct, by requiring conservation of their natural habitats.

Meanwhile, according to Law No. 32 of 2009 concerning Protection and Management of the Environment, protection of rare fauna is also part of efforts to maintain the balance of ecosystems and biodiversity. This law emphasizes the importance of prevention and action against activities that damage the environment and cause a decline in the population of endangered species (Law No. 32 of 2009, Article 59). This protection includes strict supervision of activities that can damage the habitat of rare fauna as well as community empowerment in maintaining the sustainability of the surrounding environment.

So, it can be concluded that organized crime in the trade in rare fauna is a serious threat to biodiversity and ecosystem balance, both at the national and global levels. This crime involves a structured criminal network, ranging from poaching to smuggling and illegal sales in the international market (Aristides Yoshua et al., 2016). In Indonesia, efforts to combat this crime are regulated through Law No. 5 of 1990 concerning Conservation of Natural Resources and Ecosystems and Law No. 32 of 2009 concerning Environmental Protection and Management, which emphasize the importance of cross-agency cooperation and increasing law enforcement capacity (Law No. 5 of 1990; Law No. 32 of 2009).

4.2 Study of Criminal Law Policy in Combating Organized Crime

The implementation of criminal law policy as stated in the Law on Prevention and Combating Organized Crime in the Trade of Endangered Fauna such as Law Number 5 of 1990 and Law Number 32 of 2009 aims to provide a deterrent effect to the perpetrators. However, the results of the study show that although the criminal sanctions regulated are quite severe, the main challenge lies in their implementation. Many perpetrators managed to escape the law due to technical obstacles in investigation and prosecution. This shows that the existing criminal law policy has not been fully effective in creating the expected deterrent effect.

The theory of deterrence which is the basis for the implementation of this policy shows that severe punishment will not be effective if it is not accompanied by certainty of enforcement. In other words, to provide a real deterrent effect, it is necessary to guarantee that every violation will be tried and punished in accordance with applicable regulations. However, limited resources in the Indonesian law enforcement system are still the main obstacle in achieving this legal certainty.

4.3 Analysis of Law Enforcement and Inter-Agency Coordination

"Inter-agency coordination is still less than optimal due to differences in priorities among related institutions, limited resources, and the lack of effective communication mechanisms in handling cases of endangered fauna trade. Although there have been efforts to form a special task force, its implementation is often hampered by complicated bureaucracy and a lack of alignment in operational procedures between institutions. This results in law enforcement against wildlife trade cases often being slow and inconsistent.

The solution that can be implemented is to strengthen coordination through the establishment of a joint data center between institutions that includes the police, the Ministry of Environment and Forestry, the Natural Resources Conservation Agency (BKSDA), and Community institutions (Customary Institutions). In addition, integrated training is needed to increase the capacity and awareness of officers regarding the importance of cross-sector coordination. The formation of a task force with clearer authority and harmonization of work procedures between institutions can also help speed up case handling and ensure that any violations can be prosecuted effectively."

4.4 Law Enforcement Challenges in Dealing with International Syndicates

Law enforcement against endangered fauna trade syndicates involving international networks requires legal policies that are not only firm but also adaptive to global dynamics. The lack of harmonization of criminal law and environmental law policies between Indonesia and other countries is often a loophole exploited by perpetrators. This finding reinforces the importance of a more proactive approach to international cooperation, including through bilateral or regional agreements that regulate extradition mechanisms and joint prosecution for transnational traffickers.

Indonesia's involvement in international forums related to wildlife trade needs to be optimized to strengthen the country's position in dealing with international crime networks. Thus, criminal law policies in Indonesia can be more effective in protecting endangered fauna threatened by transnational syndicate networks.

4.5 Use of Technology and Its Monitoring in Law Enforcement Policy

Although some advanced technologies have begun to be used, this study shows that the implementation of technology in law enforcement still faces infrastructure and budget constraints. As part of law enforcement policy, the government needs to increase investment in broader monitoring technology, such as the use of electronic tracking systems at border points prone to wildlife smuggling.

Technology can be an effective tool in supporting the implementation of criminal law policies if it is applied evenly across areas prone to wildlife trafficking. This will not only help detect illegal movements more quickly, but also speed up the process of taking action by law enforcement.

4.6 Implications of Findings and Policy Recommendations

Based on the results and discussion above, there are several important implications that can be the basis for improving criminal law policies and law enforcement strategies against organized crime in the trade of endangered fauna in Indonesia.

The government needs to ensure that any violations of the Law on the Prevention and Handling of Organized Crime in the Trade of Endangered Fauna and illegal logging of areas can be processed to the prosecution stage, with appropriate sanctions to provide a more effective deterrent effect.

It is necessary to develop a more integrated coordination mechanism between customary institutions as elders who understand the various histories in Indonesia and the history of hard-to-reach areas, including by establishing a joint data center to share information related to wildlife trade cases.

International cooperation needs to be strengthened through extradition agreements and cross-border law enforcement coordination with countries in Southeast Asia. This step is important to close the gaps that are often exploited by international crime syndicates.

The government needs to increase the budget allocation for monitoring technology, such as electronic tracking systems, to strengthen supervision in areas prone to wildlife trade. This technology is expected to support faster and more targeted law enforcement efforts. By implementing these recommendations, it is hoped that criminal law policies in Indonesia will be more effective in eradicating organized crime in the wildlife trade.

5. Conclusions

The conclusion of this paper highlights the significant challenges in handling the illegal trade of endangered fauna in Indonesia, despite the existence of clear regulations such as

Law Number 5 of 1990 concerning Conservation of Natural Resources and Ecosystems, Law Number 32 of 2009 concerning Protection and Management of the Environment, Law Number 41 of 1999 concerning Forestry and Decree of the Minister of Forestry and Plantations Number 901/Kpts-V/1999 concerning Determination of the Kerinci Seblat National Park (TNKS) Area. The trade of endangered fauna is a serious threat that affects Indonesia's biodiversity, economy, and international reputation. Kerinci Seblat National Park (TNKS) and other conservation areas, which are important habitats for endangered fauna such as the Sumatran tiger as a top predator and the pig-nosed turtle, are threatened by illegal activities carried out by organized crime syndicates, both local and international. Law enforcement in this case is faced with a number of major obstacles, including the lack of coordination between institutions (such as the police, the Ministry of Environment and Forestry, and the Natural Resources Conservation Agency), limited resources, and the lack of capacity of law enforcement officers to crack down on increasingly complex criminal networks. In practice, many violators do not receive appropriate punishment due to weak supervision and lack of sufficient evidence to bring cases to court. This shows that existing legal policies, although strengthened with severe sanctions, have not been fully effective in providing a deterrent effect or "deterrence" for perpetrators of crime. In this context, this journal uses "deterrence theory" and "collaborative governance theory" to describe the problem and offer solutions. This journal finds that although the legal framework has been strengthened, weak cross-sectoral coordination, limited monitoring technology, and complicated bureaucracy hinder optimal law enforcement. This study also emphasizes the importance of involving "local communities" such as the Customary Council Institution in efforts to conserve endangered fauna through a community-based approach that can increase their awareness and participation in protecting biodiversity. Overall, this journal offers a holistic approach to combating organized crime in the endangered fauna trade in Indonesia. With the integration of stricter criminal sanctions, stronger cross-sector collaboration, and the use of technology, it is hoped that the effectiveness of law enforcement can be increased to protect Indonesia's endangered fauna wealth.

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