

Legal Protection for Environmental Pollution Due to Swallow Farming in Central Bangka Regency

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Abstract. The saliva of swallows is likened to gold, a valuable item. Valuable commodities always attract the attention of those who want to gain wealth, especially entrepreneurs. However, not many people know that swallows have a negative side that is also detrimental to humans. This research aims to examine the impact of pollution and forms of legal protection on society due to swallow cultivation. This doctrinal legal research method uses a statutory approach and a case approach. The research results show that swallow cultivation in Central Bangka Regency basically has a positive economic impact because it is a source of financial income for the people who cultivate it. Likewise, it is a source of Original Regional Income (PAD) for the local government. On the other hand, it can also cause negative impacts due to pollution caused by these activities. The Government's effort to provide protection for the community is by making regulations regarding swallow cultivation in Central Bangka Regency.

Keywords: Environmental Damage, Protection, Swallows Bird

1 Introduction

Development in urban and rural areas is rapidly advancing with the increasing progress in the field of technology, which has created new breakthroughs in all aspects of life.[1] This progress also extends to the realm of consumption, which is a fundamental need for society. Technological advancements have made the production and fulfillment of these needs easier. Consumption can take various forms, including food and beverages. One such form of consumption that has evolved due to technological advancements is the use of bird's nests, particularly that of the swallow bird. From an economic perspective, the presence of swallow bird nests serves as a source of income for those engaged in their cultivation and contributes to the local government's revenue. Swallow bird (*Collocalia fuciphaga*) farming is ideally conducted in lowland areas far from human settlements. Swallow birds are primarily cultivated for their nests, which hold significant economic value, leading many people to engage in their cultivation.[2] This practice is no longer limited to remote areas away from settlements but has now spread to urban residential and office areas, occurring in numerous cities, villages, and districts across Indonesia.

From an economic standpoint, swallow bird cultivation not only benefits the entrepreneurs but

also boosts a region's income. Swallow bird nests have become a valuable export commodity. Indonesia is recognized as the world's largest producer and exporter of swallow bird nests, with annual exports averaging 115 tons between 1980 and 2000. In 1989 and 1993, the export quantity even exceeded 300 tons. Almost the entire national production is sent to international markets, with Hong Kong and Singapore being the primary buyers.[3] The cultivation of swallow birds offers economic benefits to both individuals and regions. However, swallow bird farming outside their natural habitat raises environmental concerns. While every citizen has the right to engage in various economic activities to fulfill their livelihoods, including swallow bird cultivation, this is a constitutional right, as outlined in Article 27, paragraph (2) of the 1945 Constitution of the Republic of Indonesia.[4]

Swallow birds are a natural resource that needs to be preserved. Therefore, the cultivation or domestication of these animals is vital for economic purposes. However, cultivation in residential areas must also consider the basic rights of citizens, which are constitutionally regulated in Article 18H of the 1945 Constitution of the Republic of Indonesia. This article outlines the right to live in a clean and healthy environment.[5]

In essence, the utilization of natural resources by the community should align with the regulations specified in Article 33, paragraph (3) of the 1945 Constitution of the Republic of Indonesia.[6] This article states that the state must control natural resources that support the livelihoods of many and use them for the greatest welfare of the people. This represents the state's goal of promoting prosperity and ensuring the basic rights of individuals and the collective community.[7] Cultivating or domesticating swallow birds as a business is a fundamental right of both individuals and the collective community. Therefore, regulatory measures are essential to protect the rights of the wider community, especially against pollution resulting from swallow bird cultivation, particularly in residential areas. In this context, the role of local governments is crucial in preventing pollution and safeguarding the interests of the community.[8]

This research aims to investigate and assess the environmental pollution impact and legal protection measures for communities affected by swallow bird farming, specifically in Central Bangka Regency. From a normative standpoint, the research results are expected to shed light on the role of local governments in providing legal protection for communities against environmental pollution resulting from swallow bird farming activities.

2 Method

The academic script is developed using a normative-empirical research method. Data and information are obtained from literature, regulations, research results, surveys, and field studies.[9] This data is described in a structured and systematic manner for analysis based on relevant legal foundations. Subsequently, an analysis is conducted on the presented data and information. The analysis pertains to the content of the data and its relevance to regulations at the same level and those above it.[10]

The data and information acquired fall into two categories: primary data and secondary data. The research method employed is a normative juridical study, which is a legal study that uses secondary data sources. Secondary data refers to information obtained from reading materials

rather than collected directly from the field. Secondary data includes primary legal materials, which are legal provisions related to swallow bird farming in Central Bangka Regency.

3 Result and Discussion

3.1 Walet Environmental Pollution Impact Due to Swallow Bird Farming

According to Harun M. Husen, environmental pollution occurs when foreign elements such as living organisms, substances, energy, or other components enter the environment, leading to changes in the ecosystem's quality, rendering the environment non-functional as per its ecological purpose. Pollution is the process by which pollutants enter the environment, thereby diminishing its quality. The term "environment" encompasses everything around us, including abiotic factors (inanimate objects) and biotic factors (living organisms).[11]

Article 1, Paragraph (14) of Law No. 32 of 2009 concerning Environmental Protection and Management defines environmental pollution as the "entry or introduction of living organisms by human activities that exceed the specified environmental quality standards." [12] The existence of pollution is measured by environmental quality standards, as defined in Article 1, Paragraph (13) of Law No. 32 of 2009 concerning Environmental Protection and Management, which states that environmental quality standards are the "limits or levels of living organisms, substances, energy, or components that are present or should be present, and/or pollutants whose presence in a particular environmental resource is permitted." [13]

Otto Soemarwoto, from a scientific perspective, explains that pollution occurs due to four factors: (a) pollution can result from the greater rate of production of a substance than the rate of its utilization or chemical-physical degradation; (b) biological processes that form or concentrate specific pollutants, as certain types of microbes can produce toxic substances, for example, in human or livestock food; fish can concentrate pollutants. It can also occur through food chains; (c) based on non-biological physical-chemical processes; (d) accidents that can release specific substances into the environment.[14]

Swallow bird farming, as defined in Article 1 of the Republic of Indonesia Presidential Regulation No. 48 of 2013 regarding Swallow Bird Farming, refers to an ongoing effort conducted at a specific location within a cultivation area for pets and animal products. The swallow bird is an insect-eating bird with aerial characteristics, known for its fast flight, small to medium-sized body, and distinctive narrow and pointed wings. They have very small legs and beaks and are known for not perching on trees. Swallow birds tend to reside in caves or houses with a relatively humid and dim environment, using the ceiling to attach their nests for resting and breeding purposes.

The main product of swallow bird farming is the nest, which is made from the bird's saliva. Swallow bird nests have numerous health benefits for humans, making them a highly valuable commodity in the trade market. However, the natural production of swallow bird nests is insufficient to meet the demand. Therefore, captive swallow bird farming is conducted to fulfill these needs while preserving the natural habitat of the birds. The farming of swallow birds in residential areas has a negative impact on the environment. Aside from noise pollution, the waste from swallow birds also contributes to environmental pollution.

To maintain a balance between the environment and the fundamental rights of the community, there is a need for environmental protection and management regulations in farming areas.[15] These regulations are outlined in Law No. 32 of 2009 concerning Environmental Protection and Management (UUPPLH). Article 1, point (2), defines environmental protection and management as systematic and integrated efforts to conserve the functions of the environment and prevent environmental pollution and/or damage. This includes planning, utilization, control, maintenance, supervision, and law enforcement. Furthermore, Article 1, point (4), specifies that environmental protection and management plans are written plans that encompass environmental potential, issues, and protection efforts over a specific period.[16]

In the context of swallow bird farming within residential areas, strict rules and regulations are necessary to prevent pollution. These regulations are essential for safeguarding the environment's carrying capacity, which refers to its ability to support human life, other living organisms, and the balance between them, all of which are integral to sustainable development. Efforts to protect against pollution have been made in writing through the enactment of Law No. 32 of 2009. Article 20 states that the determination of environmental pollution is measured against environmental quality standards. Environmental quality standards are the defined limits or levels of living organisms, substances, energy, or components that are present or should be present and/or pollutants whose presence in a specific environmental resource is permissible.

In order to ensure environmental preservation, permissible limits or levels of pollutants are determined through environmental quality standards established by regulations. These standards have been defined in legislation for Air and Noise Quality, such as Government Regulation No. 41 of 1999 concerning Air Pollution Control, Minister of Environment Decision No. 48 of 1996 on Noise Level Standards, and Minister of Environment Decision No. 45 of 1997 on Air Pollution Standard Index.[17] Any individual or entity conducting business activities is allowed to dispose of waste into the environment, provided that they meet the environmental quality standards and obtain the necessary permits from the relevant authorities, as stipulated in Article 20, point (3).

In the context of swallow bird farming, regulations are necessary to control pollution, and this responsibility falls on both central and local governments. The Regulation on Swallow Bird Farming, Minister of Forestry Decision No. 100/Kpts-II/2003 concerning the Guidelines for the Utilization of Swallow Bird Nests, specifically in Chapter V regarding Supervision, Control, and Utilization, Article 20, Paragraph (1), states that every holder of a permit for the utilization of swallow bird nests must report their swallow bird management activities on a quarterly and annual basis. There are several issues arising from swallow bird farming:

- a. **Noise Pollution:** The presence of a large number of swallow birds in their nests can generate loud and disruptive sounds, which can lead to health problems and disturbances, especially in densely populated areas. The noise, caused by the constant chirping of swallow birds, continues 24 hours a day.
- b. **Waste-Related Health Issues:** Swallow bird waste, when dry, can harbor harmful bacteria that pose health risks to residents and the environment. Swallow birds roaming around residential areas can spread their waste indiscriminately.
- c. **Disease Transmission:** Improperly managed swallow bird waste can become a breeding ground for disease-causing agents, posing health hazards to the

- community.
- d. Paralysis: Researchers have identified that swallow birds can carry diseases that can lead to 24 different types of human illnesses when their nests are not properly located. These diseases can cause symptoms such as dizziness, fatigue, and rapid exhaustion, and in severe cases, they can lead to paralysis.
 - e. Water Contamination: If the rooftops of residential buildings are covered in swallow bird waste, it can contaminate water reservoirs, posing a risk to the health of residents who consume this water.
 - f. Reduced Living Space: As the number of swallow bird nests increases, living spaces can become increasingly cramped and constricting, affecting the overall environment and quality of life.
 - g. Air Pollution: Swallow bird farming can lead to air pollution, affecting the health of children and those in the growing stages of development who require fresh, clean air.
 - h. Dengue Fever Transmission: Containers in these buildings that collect water can become breeding grounds for *Aedes Aegypti* mosquitoes, making the area susceptible to dengue fever outbreaks. Limbakan from livestock activities includes all forms of waste produced by livestock businesses, including solid and liquid waste, gases, and leftover feed. Solid waste comprises animal excrement, dead animals, or the stomach contents of slaughtered animals. Liquid waste is any waste in liquid form, such as urine or washing water.

The proliferation of swallow bird farming in Bangka Tengah Regency can also introduce disease-causing viruses to the community. According to the Head of the Bangka Tengah District Health Office, the presence of swallow bird nest structures in residential areas can pose a health threat to the public. The excrement of swallow birds can serve as a breeding ground for diseases if not properly managed. Various dangerous diseases have the potential to originate from inside swallow bird nest structures. In particular, the stagnant water in these structures, which serves as a bathing spot for swallow birds, can provide an ideal environment for mosquito breeding. The dark and humid conditions within swallow bird nest structures make them suitable for the breeding of disease-carrying mosquitoes like *Aedes aegypti*, which can transmit dengue fever, as well as *Anopheles* mosquitoes that transmit malaria, chikungunya, or leptospirosis.

3.2 Legal Protection and Threat of Environmental Pollution Sanctions

3.2.1 Enforcement of Administrative Sanction

Administrative sanctions are legal actions taken by state administrative officials responsible for environmental management in response to violations of environmental requirements.[18] Article 71 of UUPPLH allows Governors or Regents and/or Mayors to enforce government coercion. This involves monitoring and enforcing compliance with environmental requirements by activity or business owners, whether those requirements are established by regulations or permits. Government coercion may include orders to activity or business owners to prevent and terminate violations.[17] The use of administrative law in environmental law enforcement serves two functions: preventive and repressive. For instance, it allows Governors to issue mandatory orders to prevent and terminate violations, mitigate consequences, and take measures for recovery (Article 76 of UUPPLH). To ensure the effectiveness of government duties, UUPPLH allows government coercion by Governors, as mentioned above, to be delegated to Regents or

Mayors. Provisions related to administrative oversight and sanctions are found in Articles 71 to 83 of UUPPLH, while administrative claims are covered in Article 93.

1. Civil Law Enforcement

Out-of-Court Dispute Resolution, as per Article 84 of UUPPLH: Each party is free to choose whether to resolve environmental disputes outside of court or through court proceedings (civil law). The goal of out-of-court dispute resolution is to seek an agreement regarding the form and amount of compensation or to determine specific actions that the polluter must undertake to ensure that the offense does not recur in the future. Dispute resolution outside of court can involve third-party services, whether they possess or lack the authority to make decisions. The law permits both the community and the government to establish environmental service providers. The sections in UUPPLH that address Dispute Resolution outside of Court can be found in Article 85 and 86.

Resolution of environmental disputes through court proceedings is a standard legal process. Victims of environmental pollution can individually or through representation by others file lawsuits against polluters to claim compensation or request specific actions. Dispute resolution through the court can also be used by parties who have opted for out-of-court dispute resolution, provided that it is declared unsuccessful in reaching an agreement.

2. Criminal Law Enforcement

Criminal law enforcement is considered the last resort and aims to punish offenders with imprisonment or fines.[19] According to Sukanda Husin, environmental law enforcement is not seen as solving the problem, as pollution and environmental damage have already occurred, even if the polluter is imprisoned. In other words, criminal law enforcement does not serve to remedy the polluted environment. However, it cannot be denied that criminal law enforcement can act as a highly effective deterrent. Imposing criminal sanctions on polluters and environmental violators is crucial from the perspective of international relations and the community, as it aims to protect the community and the environment from prohibited actions and obligations imposed by developers. UUPPLH introduces two types of criminal offenses: generic crimes and specific crimes. Generic crimes refer to unlawful actions resulting in environmental pollution or damage, while specific crimes involve actions that violate administrative laws. UUPPLH's provisions regarding criminal sanctions are outlined in Articles 97 to 120. The penalties include a minimum prison term of 1 year and a maximum of 15 years, as well as fines ranging from a minimum of IDR 1,000,000,000 (one billion Indonesian Rupiah) to a maximum of IDR 15,000,000,000 (fifteen billion Indonesian Rupiah).

4 Conclusion

In conclusion, the impact of swiftlet farming on the income of the Central Bangka Regency community can be categorized into two main aspects, both positive and negative. On the positive side, swiftlet farming has significantly improved the economic well-being of the local community. It has led to increased prosperity, reducing unemployment rates and providing new livelihood opportunities. This has resulted in an overall enhancement of living standards,

including improved access to education and more permanent housing, allowing for better fulfillment of daily needs.

However, these positive changes come with negative consequences. Swiftlet farming has disrupted the social fabric of the community, mainly due to the noise pollution it generates. It has also led to tensions and conflicts among community members. Furthermore, swiftlet farming has strained local environmental resources, potentially depleting them over time. Additionally, the environmental impacts of swiftlet farming cannot be ignored. Activities related to this industry, such as water and air pollution and noise pollution, have led to various health issues within the local population, including Avian Influenza (Bird Flu), diarrhea, Rubella (German measles), scabies, and acute respiratory infections (ISPA). To address these environmental and health concerns and provide legal protection for the community, it is imperative to enforce regulations and ensure justice and legal certainty. The Central Bangka Regency government and law enforcement agencies are focusing their efforts on regulating swiftlet farming permits and mitigating these issues.

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