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Legal study of Ayung river pollution in Ubud district, Gianyar Bali

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Abstract
The environment, especially river watersheds, is under pressure from existing environmental burdens, especially the burden of pollutants entering river bodies which causes a reduction in river water quality. One of the rivers experiencing pollution is the Ayung River in the Ubud District, Gianyar Regency. The research uses empirical research methods using primary data sources obtained directly in the field through interviews, discussions and observations of phenomena in the field and secondary data originating from legal sources, reports, literature and previous research. This research uses normative legal methods because the focus of the study departs from the vagueness of norms. The approach used is the statutory approach. This research aims to look at the criminal law enforcement aspect of river pollution. Enforcement of Environmental Criminal Law is one of the processes of implementing the use of criminal law principles, institutions, systems and sanctions to enforce environmental legal norms. Various kinds of statutory regulations ranging from laws, ministerial decrees, regional regulations and governor's regulations are able to control pollution of the Ayung River in Ubud District, Gianyar Regency.

Keywords: Rivers, pollution, law

Introduction

The environment as a gift and blessing from God Almighty is an absolute part of every person's life [1]. The environment is a unity of space with all objects, power, conditions, and living creatures, including humans and their behavior, which affect nature itself, the continuity of life, and the welfare of humans and other living creatures. The scope of the environment is everything on earth and in outer space.

One of the environmental pollution is water pollution which is a regional and global environmental problem, and is closely related to air pollution and land use. When polluted air falls to earth with rainwater, the water is already polluted. Water pollution consists of various types and has many effects on the environment and living things. The most common type of water pollution is water pollution through rivers due to community activities, industry and transportation activities as activities that are increasing [2].

A watershed is a land area that is a single unit with rivers and their tributaries, which functions to accommodate, store and channel water from rainfall to lakes or to the sea naturally, where the boundaries on land are topographic separators and boundaries at sea to the water boundaries that are still affected by land activities. A watershed is also defined as an area bounded by mountain ridges and water will be channeled through small rivers to the main river [3].

Watershed is an ecosystem where elements of organisms and biophysical environment and chemical elements interact dynamically and in it there is a balance of inflow and outflow of materials and energy. Watershed management can also be called a form of regional development that places watershed as a natural resource management unit which in general is to achieve the goal of increasing optimum and sustainable agricultural and forestry production by minimizing damage so that the distribution of river water flow originating from watershed can be evenly distributed throughout the year. This biophysical integration causes the watershed to be viewed as a complete whole consisting of water sources, water bodies, lakes, and reservoirs which cannot be separated from each other [4].

The Ayung River Basin is the largest watershed in Bali Province. The Ayung River Basin has an area of 29,717.17 ha and passes through 6 regencies/cities in Bali Province, namely Badung Regency, Gianyar Regency, Bangli Regency, Tabanan Regency, Buleleng Regency, and Denpasar City. Meanwhile, the Ayung River itself has a river length of around 62.5 km and a watershed area of 288.37 km2, crossing 3 regencies, namely Badung Regency, Gianyar and Denpasar City. One of the areas crossed by the Ayung River is the Ubud area of Gianyar Regency. The Ayung River Basin is used for irrigation so that almost all farmers feel the benefits and are used for those involved in the management of food crops, plantations, livestock, fisheries, and forestry [5].

Ayung River pollution is something that occurs throughout the year caused by massive development activities around the Ayung River and various pressures from domestic agricultural waste and household waste in the Singai Ayung area both from the upstream and downstream. Ayung River pollution can be categorized as an unlawful act based on Law Number 32 of 2009 concerning Environmental Protection and Management, namely Article 1 point 14 and Government Regulation of the Republic of Indonesia Number 82 of 2001 concerning Water Quality Management and Water Pollution Control, namely Article 1 point 11 which states that water/river pollution results in losses to the environment, because river pollution results in a decrease in environmental quality or at least the quality of river water can decrease to a certain level, so that the river no longer functions according to its designation and results in the obstruction of sustainable development. In addition, the Law and Government Regulation also require everyone to maintain, prevent and overcome river pollution. For those who violate or commit acts that result in river pollution, they can be punished in accordance with applicable provisions because such acts are unlawful. In addition to being used for agricultural activities in a broad sense, the Ayung River Basin located in the Ubud District, Gianyar Regency is used for tourism purposes, especially rafting and

kayaking tourism. The Ayung River Basin has experienced pressure both physically, chemically and microbiologically from agricultural waste such as organic material runoff from fertilizers and pesticides, household waste, livestock waste, hotel waste located on the side of the Ayung River Basin which run off during the rainy season which enters the Ayung River Basin [6]. The results of previous studies conducted showed that in some parts of the Ayung River there has been pollution caused by BOD5, phosphate, phenol, detergent and sulfide parameters. This is what prompted the author to conduct a legal study of the pollution of the Ayung River. As is known, the perpetrators of river pollution cases can be accused of violating Law of the Republic of Indonesia Number 32 of 2009 concerning Environmental Protection and Management, especially Articles 98, 99 and 100. The purpose of this study is to determine the pollution of the Ayung River and the enforcement of environmental criminal law? Based on the description of the background, the formulation of the problem of this research is how to enforce criminal law on pollution of the Ayung River in Ubud District, Gianyar Regency. The purpose of this study is to identify the application of criminal law on pollution of the Ayung River in Ubud District, Gianyar Regency based on laws and regulations.

Method

The research uses an empirical research method using primary data sources obtained directly in the field through interviews, discussions and observations of phenomena in the field and secondary data originating from legal sources, reports, literature, and previous research [8]. This study uses a normative legal method because the focus of the study is based on the ambiguity of norms. The approach used is the statute approach. This study understands the legal phenomena that occur in the field and conducts legal analysis using legal sources that are relevant to the problem being studied. This type of research aims to analyze and understand legal phenomena using data obtained directly from situations or sources that are relevant to the legal problem being studied, which are then interpreted argumentatively [7].

Result and discussion

The development carried out so far is aimed at increasing economic growth and creating jobs. Every development carried out can have an impact on the environment, both physical impacts and social and cultural impacts in the form of a decrease in the quality of the environment. One of the environmental impacts that arises due to development is river pollution which is rampant in Indonesia. River pollution is partly caused by the discharge of solid waste in the form of garbage and liquid waste originating from domestic waste, agricultural waste and business waste that enters directly into the river body that flows through rainwater runoff or irrigation channels that disrupt the balance of the environment. Like the flow of the Ayung River, it is also used by the surrounding community for domestic needs such as for bathing, washing and toilets as well as for socio-religious activities, such as the Melasti ceremony, Nganyut, and other religious ritual activities. Based on the potential of the Ayung River Basin, both in terms of the potential of its water flow (debit) and the potential of the scenery (lens) in the Ayung River and Ayung River Basin, there are rafting tourism businesses and accommodation facilities in the form of hotels, villas, and the like including restaurants, eateries and bars. So the water of the Ayung River is very vital for the lives of the people and the ecosystem along the Ayung River Basin, the sustainability of which needs to be maintained [9]. Environmental preservation efforts are the obligation of every citizen, without exception. If the environment is well maintained, then the survival of humanity is also increasingly assured [10].

Article 5 paragraph (1) of Law Number 32 of 2009 concerning Environmental Protection and Management stipulates that "everyone has the same right to a good and healthy environment". In addition, Article 6 paragraph (1) of Law Number 32 of 2009 concerning Environmental Protection and Management stipulates that every person has the obligation to "maintain the sustainability of environmental functions and prevent and overcome environmental pollution and destruction". Based on Article 65 paragraph (1) to paragraph (5) of Law Number 32 of 2009 concerning Environmental Protection and Management, the rights contained in the environmental sector can be found, namely:

1. the right to a good environment;
2. the right to receive environmental education;
3. the right to access information, access to participation and access to justice in fulfilling the right to a good and healthy environment;
4. the right to submit proposals and/or objections to business plans and/or activities that are estimated to have an impact on the environment;
5. the right to play a role in environmental protection and management, and;
6. the right to make complaints due to alleged environmental pollution and/or destruction.

Superficial water pollution control regulations, both in the form of laws and government regulations. Usually the provisions in these laws and regulations are very general and do not contain detailed provisions regarding protection in the form of water pollution control [11]. This general regulation is Law Number 32 of 2009 concerning Environmental Protection and Management. Law Number 32 of 2009 is a law that regulates the main provisions of environmental protection and management. Therefore, this law serves as a reference for the preparation of other laws and regulations related to the environment and for the adjustment of existing laws and regulations. Law Number 23 of 1997 does not specifically regulate protection in the form of water (river) pollution control. However, the legal basis that prohibits people and legal entities from polluting the environment, including water, can be found in several articles of this law, namely articles 98, 99, 100, 116 and 117.

Article 98 of Law Number 32 of 2009 states that:

1. Any person who intentionally commits an act that results in exceeding ambient air quality standards, water quality standards, sea water quality standards, or environmental damage criteria, shall be punished with imprisonment for a minimum of 3 (three) years and a maximum of 10 (ten) years and a fine of at least IDR 3,000,000,000.00 (three billion rupiah) and a maximum of IDR 10,000,000,000.00 (ten billion rupiah).

2. If the act as referred to in paragraph (1) results in injury and/or harm to human health, the perpetrator shall be punished with imprisonment for a minimum of 4 (four) years and a maximum of 12 (twelve) years and a fine of at least Rp. 4,000,000,000.00 (four billion rupiah) and a maximum of Rp. 12,000,000,000.00 (twelve billion rupiah).
3. If the act as referred to in paragraph (1) results in serious injury or death, the perpetrator shall be punished with imprisonment for a minimum of 5 (five) years and a maximum of 15 (fifteen) years and a fine of at least Rp. 5,000,000,000.00 (five billion rupiah) and a maximum of Rp. 15,000,000,000.00 (fifteen billion rupiah).

Article 99 of Law Number 32 of 2009 states that

1. Any person who due to his/her negligence causes ambient air quality standards, water quality standards, sea water quality standards, or environmental damage criteria to be exceeded, shall be punished with imprisonment for a minimum of 1 (one) year and a maximum of 3 (three) years and a fine of at least Rp. 1,000,000,000.00 (one billion rupiah) and a maximum of Rp. 3,000,000,000.00 (three billion rupiah).
2. If the act as referred to in paragraph (1) results in injury and/or harm to human health, shall be punished with imprisonment for a minimum of 2 (two) years and a maximum of 6 (six) years and a fine of at least Rp. 2,000,000,000.00 (two billion rupiah) and a maximum of Rp. 6,000,000,000.00 (six billion rupiah).
3. If the act as referred to in paragraph (1) results in serious injury or death, the perpetrator shall be punished with imprisonment for a minimum of 3 (three) years and a maximum of 9 (nine) years and a fine of at least Rp3,000,000,000.00 (three billion rupiah) and a maximum of Rp. 9,000,000,000.00 (nine billion rupiah).

Article 100 of Law Number 32 of 2009 states that

1. Any person who violates wastewater quality standards, emission quality standards, or disturbance quality standards shall be punished with imprisonment for a maximum of 3 (three) years and a fine of a maximum of Rp3,000,000,000.00 (three billion rupiah).
2. The criminal act as referred to in paragraph (1) may only be imposed if the administrative sanctions that have been imposed are not complied with or the violation is committed more than once.

Article 116 of Law Number 32 of 2009 states that

1. If an environmental crime is committed by, for, or on behalf of a business entity, criminal charges and criminal sanctions shall be imposed on: a. the business entity; and/or b. the person who gave the order to commit the crime or the person who acted as the leader of the activity in the crime.
2. If an environmental crime as referred to in paragraph (1) is committed by a person, who based on an employment relationship or based on another relationship who acts within the scope of the business entity's work, criminal sanctions shall be imposed on the person who gave the order or the leader in the crime without considering whether the crime was committed alone or together.

Article 117 of Law Number 32 of 2009 states that: If criminal charges are filed against the person who gave the order or the leader of the crime as referred to in Article 116 paragraph (1) letter b, the criminal threat imposed in the form of imprisonment and a fine shall be increased by one third. Specific regulations for controlling water (river) pollution found in laws and regulations that regulate in detail the procedures for controlling pencemaran air (Husin, 2007).

The regulations include

a. Government Regulation of the Republic of Indonesia Number 82 of 2001 concerning Water Quality Management and Water Pollution Control.
   Government Regulation of the Republic of Indonesia Number 82 of 2001 was issued on December 14, 2001. Regulations on water (river) pollution control are contained in Government Regulation of the Republic of Indonesia Number 82 of 2001 concerning Water Quality Management and Water Pollution Control in articles 4, 8, 10, 23, 31, 32, 37, 42, and 51.
b. Law Number 7 of 2004 concerning Water Resources Law Number 7 of 2004 came into effect in 2004. This law is a legal regulation to deal with the imbalance between the availability of water which tends to decrease and the increasing need for water so that water resources must be managed by paying attention to social, environmental and economic functions in harmony. Regulations on water pollution control (rivers) are contained in Law Number 7 of 2004 which came into effect in 2004 and are contained in articles 1, 23, 24, 52, 94, 95, and 96.
c. Decree of the Minister of State for the Environment Number 142 of 2003 concerning Amendments to Decree of the Minister of State for the Environment Number 111 of 2003 concerning Guidelines Concerning Requirements and Procedures for Licensing and Guidelines for the Study of Wastewater Discharge into Water or Water Sources. Decree of the Minister of State for the Environment Number 142 of 2003 was ratified on September 24, 2003. This decision was made due to an error in Decree of the Minister of State for the Environment Number 111 of 2003 concerning Guidelines Concerning Requirements and Procedures for Licensing and Guidelines for the Study of Wastewater Discharge into Water or Water Sources, namely in Article 5. The other articles are still the same as Decree of the Minister of State for the Environment Number 111 of 2003.
   Regulations on water pollution control (rivers) are contained in the Decree of the Minister of State for the Environment Number 142 of 2003, articles 1, 2 and 3. Applications for permits are based on the results of environmental impact analysis studies or studies of environmental management efforts and environmental monitoring efforts. Meanwhile, the requirements for permits for wastewater discharge into water or water sources follow the provisions in accordance with Article 38 paragraph (2) of Government Regulation Number 82 of 2001 concerning Water Quality Management and Water Pollution Control. Among them, it is mandatory to include the obligation to process waste, requirements for the quality and quantity of wastewater that may be discharged into

environmental media such as rivers, requirements for wastewater disposal methods, requirements for providing emergency response facilities and procedures, requirements for monitoring wastewater quality and discharge, other requirements determined by the results of environmental impact analysis examinations, the obligation to carry out Environmental Impact Analysis, prohibition on discharge at once in one go or sudden release, prohibition on diluting wastewater and efforts to comply with the required level limits, and the obligation to conduct and report self-monitoring.

d. Decree of the Minister of State for the Environment Number 114 of 2003 Concerning Guidelines for Assessment to Determine Water Class.
Decree of the Minister of State for the Environment Number 114 of 2003 Concerning Guidelines for Assessment to Determine Water Class was ratified on July 10, 2003. This decision was made based on considerations in implementing the provisions of Article 9 paragraph (4) of Government Regulation Number 82 of 2001, namely concerning guidelines for assessment to determine water class. Regulations for controlling water pollution (rivers) are contained in Article 1 paragraph (1) and Article 5. Water treatment programs or water pollution recovery programs are none other than one form of effort in maintaining water sustainability and avoiding water pollution. The government is required to prepare a water management program if the water quality is better or the same when compared to the water class. On the other hand, if the water quality is worse when compared to the water class, the government is required to announce that the water source in question has been polluted and prepare a water pollution recovery program.

e. Decree of the Minister of State for the Environment Number 115 of 2003 Concerning Guidelines for Determining Water Quality Status.
Decree of the Minister of State for the Environment Number 115 of 2003 Concerning Guidelines for Determining Water Quality Status was ratified on July 10, 2003. This decision was made based on considerations in implementing the provisions of Article 14 paragraph (2) of Government Regulation Number 82 of 2001 concerning the determination of water quality status. At the time this decision comes into effect, all laws and regulations relating to existing water quality status shall remain in effect as long as they do not conflict with this decision.Article 1 number b reads: "Water quality status is the level of water quality condition that indicates polluted conditions or good conditions in a water source within a certain time by comparing it with the established water quality standards". Water quality is the condition of water quality that is measured/tested based on certain parameters and certain methods based on applicable laws and regulations. Polluted conditions are when the water quality does not meet water quality standards, while good conditions are when the water quality meets water quality standards. The method used can be seen in Article 2 paragraph (1), namely by using the Storet method or Pollution Index method. The Storet method or pollution index method is one of the methods for determining the status of water quality that is commonly used. By knowing this Storet method, parameters that have met or exceeded water quality standards can be identified. In principle, this method is a comparison between water quality data and water quality standards that are adjusted to their intended use in order to determine the status of water quality. However, it should be added that there are alternatives to adjust to the situation and conditions and regional capacity by using other methods with conditions based on scientific and technological principles.

f. Bali Provincial Regulation No. 1 of 2017 concerning Environmental Protection and Management.
Article 46 of Bali Provincial Regulation No. 1 of 2017 states that: Every person and/or Agency is prohibited from:

1. committing acts that cause environmental pollution and/or destruction;
2. importing hazardous and toxic materials that are prohibited by laws and regulations into the Province;
3. importing waste originating from outside the Province;
4. importing hazardous and toxic waste into the Province;
5. disposing of waste into the environmental media;
6. releasing genetically engineered products into the environmental media that are contrary to laws and regulations or environmental permits;
7. clearing land by burning;compiling an environmental impact analysis without having an environmental impact analysis compiler competency certificate; and/or
8. providing false information, misleading information, removing information, damaging information, or providing incorrect information.

Article 54 of Bali Provincial Regulation No. 1 of 2017 states that

1. Any person and/or body that violates the provisions as referred to in Article 46 shall be punished with imprisonment for a maximum of 6 (six) months and/or a maximum fine of Rp. 50,000,000.00 (fifty million rupiah).
2. The criminal acts as referred to in paragraph (1) constitute a violation.Peraturan Gubernur Bali Nomor 16 Tahun 2016 tentang Baku Mutu Lingkungan Hidup dan Kriteria Baku Kerusakan Lingkungan Hidup.

Article 5 of Bali Governor Regulation Number 16 of 2016 states that

1. Every person in charge of a business and/or activity that discharges waste into the environment must comply with the Environmental Quality Standards as referred to in Article 2 and Article 3.
2. Every person in charge of a business and/or activity whose activities cause environmental damage must comply with the Environmental Damage Standard criteria as referred to in Article 2 paragraph (1).
3. The person in charge of a business and/or activity as referred to in paragraph (1) and paragraph (2) has the following obligations:

a. Manage waste before it is discharged into the environment so that it does not exceed the Environmental Quality Standards as referred to in Article 2;
b. Prevent environmental pollution and/or damage;

c. Submit a report on the results of monitoring no later than once every 6 (six) months to the Governor and the Technical Agency in charge of the relevant activities.
d. Bali Governor Regulation No. 24 of 2020 concerning Protection of Lakes, Springs, Rivers, and Seas.

Article 24 of Bali Governor Regulation No. 24 of 2020 states that:

1. Protection of water flow as referred to in Article 9 paragraph (1) letter c is carried out through:
a. control of water utilization; and
b. prohibition on dumping garbage, waste, and dirt.

2. Control of water utilization as referred to in paragraph (1) letter a is carried out in order to maintain the sustainability of water flow and its functions and equal distribution of water utilization.
3. Equal distribution of water utilization as referred to in paragraph (2) takes into account flow rate and utilization needs.
4. Determination of flow rate and utilization needs as referred to in paragraph (3) is based on a technical study from the Relevant Agency.
5. Control of water utilization as referred to in paragraph (1) letter a is carried out by the Regional Apparatus that organizes the affairs of Lake, Spring, River, and Sea Protection.

Article 26 of Bali Governor Regulation No. 24 of 2020 states that:

1. In protecting water flow, managers of activities that produce waste, sewage, and dirt are obliged to provide a management place.
2. Managers of activities as referred to in paragraph (1) are obliged to place the waste, sewage, and dirt produced in the place provided.

Conclusion

The form of regulation on river protection and pollution including criminal penalties is regulated in Law Number 32 of 2009 concerning Environmental Protection and Management in Articles 98, 99, 100, 116, 117, 118 and 119. The form of regulation is specifically contained in Government Regulation of the Republic of Indonesia Number 82 of 2001 concerning Water Quality Management and Water Pollution Control, Law Number 7 of 2004 concerning Water Resources, Decree of the Minister of State for the Environment Number 142 of 2003 concerning Amendments to Decree of the Minister of State for the Environment Number 111 of 2003 concerning Guidelines concerning Requirements and Procedures for Licensing and Guidelines for the Study of Wastewater Discharge into Water or Water Sources, Decree of the Minister of State for the Environment Number 114 of 2003 concerning Guidelines for Assessment to Determine Water Class, Decree of the Minister of State for the Environment Number 115 of 2003 concerning Guidelines for Determining Water Quality Status, Regional Regulation of the Province of Bali No. 1 of 2017 concerning Environmental Protection and Management, No. 16 of 2016 concerning Environmental Quality Standards and Environmental Damage Standard Criteria, and Bali Governor Regulation No. 24 of 2020 concerning Protection of Lakes, Springs, Rivers, and Seas.

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