

LAW ENFORCEMENT ON BIOPIRACY AS PROTECTION OF GENETIC BIODIVERSITY (SDG) IN INDONESIA

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ABSTRACT

Indonesia's genetic biodiversity must be maintained and prevented from being transferred to foreign parties without the knowledge or approval of the government. This is considering that genetic resources have strategic value for food integrity, health, energy, economy, national security, technological development and the environment as well as a form of sovereignty of the Unitary State of the Republic of Indonesia. Efforts to protect genetic resources (biodiversity) require law enforcement with strict sanctions against biopiracy.

KEYWORDS: *Biodiversity, environmental law, Biopiracy*

1. INTRODUCTION

Biodiversity or biodiversity (biodiversity) refers to the variety of species living on earth, including plants, animals, bacteria, and fungi. Liver on earth is so rich that there are still many species that have not been discovered. But also many species are threatened with extinction due to human activities. Scientists have predicted that the area of conservation forest areas in this country is 27.4 million ha, which consists of 50 national parks, 250 nature reserves, 75 wildlife reserves, 115 natural tourism parks, 23 major forest parks and 13 hunting parks and marine areas. There are about 8.7 million species of plants and animals on earth. However, only about 1.2 million species have been identified and described so far, most of which are insects. This indicates that millions of other organisms are still a mystery.

The conservation program in Indonesia is not optimal due to various problems such as illegal logging, land conversion and forest fires. Research conducted by Margono et al. (2014) stated that between 2000 and 2012, Indonesia lost 6.02 million ha of forest, and in 2012 the annual deforestation rate reached 0.82 million ha per year. This problem has a negative impact on the biodiversity of flora and fauna in the conservation area.

The importance of protecting genetic resources is motivated by the fact that Indonesia has a very strategic position with rich natural resources and high endemism of flora and fauna species. The biodiversity stored in Indonesia's marine mega biodiversity is the largest in the world, while on land it is number two in the world after Brazil. This biodiversity includes genetics, species to a variety of unique ecosystems.

Indonesia's biodiversity and genetic resources are also attractive to countries that do not have the resources but have the technology to use them. This becomes a challenge and a threat for us if we are not able to manage it properly.

Biopiracy (theft of genetic resources) has occurred, among others: (1) Publication of foreign researchers without permission for the discovery of a new species of Giant Wasp (Megalara Garuda) which has high economic value, (2) Registration of patents on 9 (nine) native plant species Indonesia by the Japanese cosmetic company Shiseido (later patented), although the patent has now been revoked, (3) The theft of the Semar Bag (Nephentes clipeata) at TWA Gunung Kelam, West Kalimantan by foreign researchers, and (4) Publication without permission research on amphibians and reptiles in Lore Lindu National Park, Central Sulawesi by foreign researchers, and there may be many more in the future if we do not immediately anticipate the problem of managing our genetic resources.

Actually, our researchers have also been able to reveal the potential of Indonesia's genetic resources (bioprospection), for example (1) Utilization of useful bacteria (microbes) to replace fertilizers and pesticides and anti-frost, (2) Discovery of anti-cancer in soft coral in TWA Teluk Kupang, (3) Cultivation of Morel Mushroom which has high economic value in Rinjani National Park and so on. Therefore, it is considered very important to enforce the law on biopiracy as an effort to protect biodiversity in Indonesia to increase ambition and strengthen international action in achieving the targets in the biodiversity convention, as well as supporting the achievement of sustainable development and the 2050 development vision, namely: "Living Harmony with Nature".

2. MATERIALS AND METHODS

The type of legal research carried out is normative juridical (normative law). The normative legal research method is a scientific research procedure to find the truth based on the logic of legal scholarship from the normative side. Therefore, this legal research is focused on examining legal research on the rules or norms in positive law, namely legal norms related to the legal protection of genetic biodiversity (SDG) in Indonesia and its law enforcement efforts against biopiracy. Meanwhile, the approach used is the statutory approach, namely by conducting an assessment of the laws and regulations related to the subject matter.

2.1 How are efforts to protect biodiversity law in Indonesia

As a legal protection for genetic biodiversity, Indonesia has made various efforts to manage biodiversity, including from the aspect of protection, conservation, as well as the utilization and sharing of benefits from the utilization of the components of the liver, which have been carried out by the government at all levels from national to global. At the international level:

- a. Indonesia is a state party *Convention on Biological Diversity (CBD)* and has ratified it into Law No. 5 of 1994 concerning Ratification of the United Nations Convention On Biological Diversity.

- b. Indonesia also ratified the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) through Law No. 4 of 2006 concerning Efforts to Protect Plant Genetic Resources for Food and Agriculture.
- c. Indonesia's liver management is also regulated in Law No. 11 of 2013 concerning the Ratification of the Nagoya Protocol regarding access to genetic resources and the fair and balanced sharing of benefits arising from their use.
- d. *Agreement on Trade Related Aspects of Intellectual Property Rights*(TRIPs approval). This agreement has been ratified by Indonesia through Law no. 7 of 1994 concerning Ratification of the Agreement Establishing The World Trade Organization. These TRIPs are part of one of the agreements under the WTO.

Indonesia is also active in negotiations in other international forums.

While nationally there are several regulations relating to the protection of genetic biodiversity, including:

- a. Article 28H of the 1945 Constitution of the Republic of Indonesia.
- b. Law No. 5 of 1990 concerning Conservation of Biological Natural Resources and Their Ecosystems.
- c. Law No. 32 of 2009 concerning the Protection and Management of the Environment, is mainly regulated in Article 1 and Article 3.
- d. Law No. 12 of 1992 concerning Plant Cultivation System.
- e. Law No. 26 of 2007 concerning Spatial Planning.
- f. Law No. 27 of 2007 concerning Management of Coastal Areas and Small Islands.
- g. Law No. 31 of 2004 concerning Fisheries in conjunction with Law No. 45 of 2009 concerning Amendments to Law no. 31 of 2004 concerning Fisheries.
- h. Law No. 32 of 2004 concerning Regional Government as changed to Law Number 23 of 2014 as replaced by Government Regulation in Lieu of Law Number 2 of 2015 and replaced again with Law No. 9 of 2015 concerning Second Amendment to Law No. 23 of 2014 concerning Regional Government
- i. Law No. 41 of 1999 concerning Forestry.
- j. Law No. 13 of 2016 concerning Patents.
- k. Law No. 11 of 2019 concerning the National Science and Technology System.
- l. PP No. 21 of 2005 concerning Biosafety of Genetically Engineered Products.
- m. Minister of Environment and Forestry Regulation Number 29 of 2009 concerning Guidelines for Conservation of Biodiversity in the Region.
- n. Minister of Environment and Forestry Regulation No. P.2/Menlhk/Setjen/Kum.1/1/2018 concerning Access to Genetic Resources of Wild Species and Profit Sharing from Their Utilization
- o. Presidential Decree No. 1 of 2021 concerning Management of Microorganisms.

2.2 How Law Enforcement Against Biopiracy To Protect Biodiversity In Indonesia

Law enforcement in this study is legal sanctions imposed on violations of the provisions contained in various regulations concerning legal protection of genetic biodiversity in Indonesia. In general, biopiracy is included in environmental cases, while law enforcement in environmental cases includes administrative sanctions, civil sanctions and criminal sanctions, with the provisions of the ultimum remedium principle that criminal sanctions are only applied if administrative sanctions and civil sanctions cannot be applied/enforced against a case. environment (according to Law No. 32 of 2009). Likewise, Law No. 11 of 2019 concerning the National Science and Technology System which has regulated the prevention of biopiracy by regulating the transfer of materials and prohibiting the transfer of materials outside the territory of Indonesia unless it is carried out with an MTA (Material Transfer Agreement). Including mandatory surrender and mandatory storage of primary data including data and information on the heart, administrative sanctions are contained in articles 91 and 92 and for criminal sanctions contained in articles 93 - 96. Except for Law No. 13 of 2016 concerning Patents, direct criminal sanctions are contained in article 161 - Article 166. In PP No. 21 of 2005 concerning the Biosafety of Genetically Engineered Products, there are no strict legal sanctions. So it is hoped that the bill on biodiversity conservation can be passed soon. Including mandatory surrender and mandatory storage of primary data including data and information on the heart, administrative sanctions are contained in articles 91 and 92 and for criminal sanctions contained in articles 93 - 96. Except for Law No. 13 of 2016 concerning Patents, direct criminal sanctions are contained in article 161 - Article 166. In PP No. 21 of 2005 concerning the Biosafety of Genetically Engineered Products, there are no strict legal sanctions. So it is hoped that the bill on biodiversity conservation can be passed soon. Including mandatory surrender and mandatory storage of primary data including data and information on the heart, administrative sanctions are contained in articles 91 and 92 and criminal sanctions are contained in articles 93 - 96. Except for Law No. 13 of 2016 concerning Patents, direct criminal sanctions are contained in article 161 - Article 166. In PP No. 21 of 2005 concerning the Biosafety of Genetically Engineered Products, there are no strict legal sanctions. So it is hoped that the bill on biodiversity conservation can be passed soon. In PP No. 21 of 2005 concerning the Biosafety of Genetically Engineered Products, there are no strict legal sanctions. So it is hoped that the bill on biodiversity conservation can be passed soon. In PP No. 21 of 2005 concerning the Biosafety of Genetically Engineered Products, there are no strict legal sanctions. So that it is hoped that the bill on biodiversity conservation can be passed soon.

3. CONCLUSION

The potential (bioprospection) of Indonesia's genetic diversity (biodiversity) must be maintained and prevented from being transferred to foreign parties without the knowledge or approval of the government. Opportunities for cooperation with

technology-owning countries must be opened through policies on the use of genetic resources that benefit Indonesia as a resource-providing country. The thinking that is used as the basis here emphasizes on ensuring a fair and equitable distribution of benefits from the use of genetic resources for their owners. In addition, attention is needed on traditional knowledge related to genetic resources, in this case KLH can cooperate with LIPI. There is still a need for new regulations with stricter and more comprehensive sanctions to protect and enforce biodiversity laws from the threat of biopiracy.

REFERENCES

- Johnny Ibrahim, *Theory & Research Methods of Normative Law*, Banyumedia Publishing, Malang, 2006.
- Peter Mahmud Marzuki, *Introduction to Legal Studies*, Kencana, Jakarta, 2009.
- Syahrul Machmud, *Enforcement of Administrative Law, Civil Law and Criminal Law According to Law no. 32 of 2009*, Graha Ilmu, 2012.
- M. Chazienul Ulum, Rispa Ngindana, *Environmental Governance, Policy Issues and Environmental Governance*, UB Press, 2017.
- [The Importance of Protecting Indonesia's Genetic Resources](https://dlhk.acehprov.go.id/2021/03/importance-per...)
<https://dlhk.acehprov.go.id/2021/03/importance-per...> march 24, 2021
- <https://biodiversitywarriors.kehati.or.id/article/apa-itu-biodiversity/>