

## LEGAL STUDY OF PANGANDARAN KARST LANDSCAPE AREA FOR GEOTOURISM TO REACH SUSTAINABLE DEVELOPMENT GOALS (SDGs) 15

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**ABSTRACT.** Pangandaran Regency conducts geotourism activities in this karst landscape area. This karst landscape needs to be protected by the local government because ecological functions are useful for life and have high scientific value for education. Geotourism in Pangandaran Regency faces constraints due to local regulations that have not been synchronized with the establishment of the karst landscape so there is a need for legal studies to realize sustainable development in this area. The research method used is normative juridical research based on secondary data in the form of primary legal materials and secondary legal materials related to the karst landscape in Pangandaran Regency. The result of the study show that out of sync and out of harmony Regulation of Regional Spatial Planning of Pangandaran Regency Number 3 of 2018 concerning the Regional Spatial Planning of Pangandaran Regency in 2018-2038 with Ministerial Decree of Energy and Mineral Resources (ESDM) No. 98 K/40/MEM/2019 concerning the Determination of the Pangandaran Karst Landscape Area which will have an impact on the creation of non-optimal use of spatial in accordance with functions of the area. From this study, it can be concluded that the tourism village objects in the karst protected area from the karst function based on the landscape karst area rules are not disturbed must still refer to the principle of environmentally sustainable development that has been regulated by both local and central government.

**Key words:** geotourism; karst landscape area; sustainable development goals

### KAJIAN HUKUM KAWASAN BENTANG ALAM KARST (KBAK) PANGANDARAN UNTUK GEOWISATA DALAM RANGKA MENCAPAI *SUSTAINABLE DEVELOPMENT GOALS (SDGs) 15\**

**ABSTRAK.** Kabupaten Pangandaran melaksanakan praktik geowisata pada Kawasan Bentang Alam Karst (KBAK). KBAK perlu dilindungi oleh pemerintah daerah karena fungsi ekologis yang berguna bagi kehidupan dan memiliki nilai ilmiah yang tinggi bagi pendidikan. Geowisata di Kabupaten Pangandaran menghadapi kendala akibat peraturan daerah yang belum sinkron dengan penetapan KBAK sehingga perlu dilakukan kajian hukum dalam mewujudkan pembangunan berkelanjutan dikawasan tersebut. Metode penelitian yang digunakan adalah penelitian yuridis normatif berdasarkan pada data sekunder berupa bahan hukum primer, bahan hukum sekunder yang terkait dengan KBAK di Kabupaten Pangandaran. Hasil Penelitian: Tidak sinkron dan harmoninya Peraturan Daerah Kabupaten Pangandaran Nomor 3 Tahun 2018 Tentang Rencana Tata Ruang Wilayah Kabupaten Pangandaran Tahun 2018-2038 dengan Keputusan Menteri Energi dan Sumber Daya Mineral Nomor 98 K/40/MEM/2019 tentang Penetapan KBAK Pangandaran yang akan berdampak pada terciptanya pemanfaatan ruang yang tidak optimal sesuai dengan fungsi kawasan. Dari penelitian ini, dapat disimpulkan bahwa objek desa wisata di kawasan lindung karst agar fungsi karst sesuai dengan KBAK tersebut tidak terganggu harus tetap mengacu pada prinsip pembangunan berkelanjutan lingkungan yang telah diatur baik oleh pemerintah daerah maupun pusat.

**Kata kunci:** geowisata; kawasan bentang alam karst (KBAK); *sustainable development goals (SDGs)*

#### INTRODUCTION

Indonesia has a geological diversity (geodiversity) that can be used as tourism, one of which is karst. Karst is a landscape formed by dissolving water on limestone and/ or dolomite. The Karst Landscape Area identifies karst in the form of exokarst (karst on the surface) and endokarst (karst on the subsurface), as Article 1 number 1, Article 1 number 2 and Article 4 paragraph (2) and (3) Regulation of the Minister of Energy and Mineral Natural Resources Number 17 of 2012 concerning the Determination of the Karst Landscape Area (Ministerial Regulation of ESDM on the Determination of Karst Landscape Areas), which occurs due to the deposition of carbonate rocks by groundwater flow (Yuskar, 2017).

Karst has a very unique topographic form that if there is a change in the karst it will cause water balance,

solar energy flow system, and reduction of carbon dioxide absorption. Based on the opinion of Suwarno Hadisusanto and Pindi that karst ecosystems have low carrying capacity so it is very difficult to repair if once it has been damaged (nonrenewable resources) (Hadisusanto & Pindi, 2017).

Karst area not only has high capital resources but also has historical value safeguards to support sustainable development and the development of scientific knowledge in accordance with Ministerial Regulation of ESDM on the Determination of karst landscape areas. One of them is Pangandaran Regency which has a geodiversity in the form of karst area which can be used for geotourism.

Tome Hose was the first scientist to actively introduce the term geotourism, a forum for tourists to gain knowledge and understand geological diversity and hope to develop earth science (Oktariadi, 2018). Geotourism activities are expected to be a form of appreciation for

the meaning and uniqueness of the geological diversity contained in an area to increase environmental awareness through conservation efforts and empowerment of local communities in safe and environmentally ways (Oktariadi, 2018).

The existence of geological features on the surface and contents in the earth is the object of tourism activities in Geotourism which encourages an understanding of the environment, nature, and culture. Furthermore this is also a form of appreciation and conservation activities, and concern for the preservation of local wisdom (Ginting. & Sasmita. 2018 in Hermawan, & Ghani.). The development of Geotourism must be considered in the form of management by responsible parties including Regional Government and Local Communities.

Regions in Indonesia are permitted to conduct Tourism Organization based on co-administration tasks stated in Article 12 paragraph (3) letter b of Law Number 23 of 2014 concerning Regional Government. The introduction of geotourism objects makes the Pangandaran Regency area as one of the tourist destination centers in West Java as affirmed in Article 16 paragraph (1) letter e of West Java Province Regional Regulation Number 15 of 2015 concerning the Tourism Development Master Plan (RIPK) of West Java Province 2015-2025 (West Java Provincial Regulation on RIPK West Java Province) that Pangandaran Regency is a Provincial Tourism Destination. Article 9 paragraph (1) of this Regional Regulation states that the development of tourism in the Provincial Region has a vision to make West Java a destination for world class tourism that is integrated, sustainable and upholds cultural values.

Furthermore, Regional Regulation of Pangandaran Regency Number 3 of 2018 concerning the Regional Spatial Planning of Pangandaran Regency in 2018-2038 (Regional Regulation on RTRW of Pangandaran Regency) states that there are karst areas which are unique and rare landscapes. Then in the Regional Spatial Planning (RTRW) of Pangandaran Regency, it will be determined as part of the geological environmental conservation component in the protected area. As Article 41 Regional Regulation on RTRW of Pangandaran Regency, karst areas include: Cimerak District, Cijulang District, Parigi District, Sidamulih District, Pangandaran District, and Kalipuncang District. There is a karst area, Article 41 jo. Article 1 number 23 Regional Regulation on RTRW of Pangandaran Regency, which can be interpreted as an area designated with the main function of protecting environmental sustainability includes natural resources, artificial resources, historical values, and national culture, in the interest of sustainable development.

West Java, especially Pangandaran Regency, has a geological wealth in the form of a karst landscape as mentioned in the Regional Regulation on RTRW of the Pangandaran Regency, one of which attracted attention was Parigi District. The tourists who often come both

local and non-local identify the uniqueness of a geological appearance that has the potential for Tourism Development.

Furthermore, one of the Pangandaran Regencies which are typical karstic landscapes such as caves, niches and canyons which are currently used as tourist attractions are in Selasari Village, Parigi District, Pangandaran, West Java. Potential tourism objects that are utilized by local communities and are of interest to tourists include geosport in the form of body rafting and river tubing in the form of exploring river flows on the side of the karstic cone hills. The uniqueness of this village is the underground river that flows inside the karst walls that cover the ceiling of the cave.

The community around the karst area of Selasari Village, Parigi District, built a Tourism Village based on the Village of Selasari Regulations, Parigi District, Pangandaran Regency Number 2 of 2019 concerning Tourism Villages. The management is carried out by the local community which is considered to have an understanding of this tour utilizing nature and successfully inviting local and foreign tourists to this Selasari Village. Utilization of this tourism may be done by the community to improve economic growth and welfare of the people as Article 4 of the Tourism Act. However, environmental sustainability due to development in the use of nature must be strictly enforced. This is regulated in Article 2 of the Tourism Act, so that future generations continue to benefit and maintain the uniqueness and beauty of the geotourism object.

As the Ministerial Decree of Energy and Mineral Resources (ESDM) No. 98 K/40/MEM/2019 concerning the Determination of the Pangandaran Karst Landscape Area (Ministerial Decree of ESDM on the Determination of the Pangandaran Karst Landscape Areas) that there are karst landscape areas that have met the criteria to be protected, namely karst area which has certain exokarst and endokarst form criteria regulated in Article 4 paragraph (4), paragraph (5), and paragraph (6) of Ministerial Regulation of ESDM on the Determination of Karst Landscape Areas, and is mentioned in Ministerial Decree of ESDM on the Determination of the Pangandaran Karst Landscape Areas namely Cimerak-Cijulang Zone, Cigugur Zone, Parigi Zone, and Kersaratu Zone that the karst area that has become a tourist attraction in Selasari Village, Parigi District is a protected area so that its management must be carried out with efforts to preserve, preserve, and utilize optimally.

The implementation of geotourism to utilize the environment in the karst area in Selasari Village, Parigi District, which previously referred to the RTRW of Pangandaran Regency, has been designated as a Karst Landscape Area. This is in accordance with the Ministerial Decree of ESDM on the Determination of the Pangandaran Karst Landscape Areas so that the Districts that become geological protected areas in the form of karst landscapes that have been regulated in the

Regional Regulation on RTRW of Pangandaran Regency, one of which is the District of Parigi has changed. Here there are Karst Landscape Areas and Non-Karst Landscape Areas. However, the public has not paid close attention to the legal rules that apply and the principles of sustainable environmental management. In rock mining and logging (for example), here is performed to facilitate the community in making use of it. However, this will be contrary to development that takes into account the continuity of future generations to improve the quality of the environment (Purnama, 2018)

Tourism activities to preserve geological heritage are the right choice, but the link between natural tourism and environmental issues is the most important thing. The beauty of the authenticity of a tourist area is support for the environment. The existence of a tourist attraction will bring many people and it is also possible for the development of social, cultural and economic life. What should be underlined is that the karst area must be preserved and must not be damaged just because it considers one side of development by taking into account sustainable principles.

The establishment of the Karst Landscape Area, especially in Pangandaran Regency, is important for the Regional Government. This means that the region can maximize land use in the area so that the karst area of Pangandaran Regency makes any area that needs to be restricted to carry out development properly, such as in Selasari Village, Parigi District.

The potential of Geotourism which is owned by Selasari Village, Parigi District, is already regulated in the Regulation of Selasari Village, Parigi District, Pangandaran Regency regarding Tourism Village. The regulation can support tourism in geological areas, especially in this case the karst area in Selasari Village, Parigi District, Pangandaran Regency. With the existence of this Village Regulation, all actions or actions carried out by the manager or business actor must be based on applicable regulations and also must consider the living law of the community that can support or accommodate Sustainable Development Goals (SDGs).

The management and utilization of the Karst Landscape Area of Pangandaran Regency can be optimized for geotourism in the context of Sustainable Development Goals aimed at protecting the terrestrial ecosystem. In this case, it will protect, restore, support sustainable use of terrestrial ecosystems, manage forests sustainably, fight desertification, inhibit or reverse land degradation, and inhibit the loss of biodiversity as a form of purpose in carrying out development in an environment.

## METHOD

This study uses a normative juridical approach, namely research that uses secondary data in the form of primary legal materials, secondary legal materials, and tertiary legal materials (Soekanto, 2010) but continues

to focus on examining the rules or norms in positive law through the legislation approach (Ibrahim, 2007).

The specifications used in this study are descriptive analytical means that this study aims to describe the state or symptoms of an object that is studied thoroughly and systematically (Hartono, 2006).

Then, this is supported by field studies in the form of primary data obtained from resource persons at the location (Soekanto, & Mamudji, 2001) in this case, interviews with the Regional Development Planning Board of Pangandaran Regency and representatives of the community components.

Data analysis method is qualitative juridical analysis which starts with paying attention to the hierarchy of existing regulations as positive legal norms in order to realize legal certainty and look for living laws, both written and unwritten. Then the data will be arranged systematically and analyzed qualitatively.

## RESULT AND DISCUSSION

### Synchronization and Harmonization of the Setting of the Pangandaran Karst Landscape Area

Pangandaran Regency is one of the areas surrounded by karst, so the local government needs to determine the allotment of the area by making regulations regarding the use of karst area by implementing the regulations on it or special regulations governing it.

Environmental conditions in Indonesia are closely related to the implementation of spatial planning. This is in line with Article 3 of Law Number 26 of 2007 concerning Spatial Planning (UUPR) whose objectives are: a. the realization of harmony between the natural and artificial environment; b. realization of integration in the use of natural resources and artificial resources by taking into account human resources; and c. the realization of the protection of spatial functions and prevention of negative impacts on the environment and spatial use.

The regulation on karst in UUPR is not explained in depth but the legal protection of karst area is based on UUPPLH as Article 1 paragraph (2) states: "Environmental protection and management is a systematic and integrated effort undertaken to preserve environmental functions and prevent pollution from occurring. and/or environmental damage which includes planning, utilization, control, maintenance, supervision and law enforcement". The protection and management of the environment in the karst region will balance the potential of natural resources in an area with the needs of community economic development while maintaining the function of karst.

In the regional protection law, regulations are classified based on the system, the main functions of the region, administrative areas, regional activities, and the strategic value of the area. In spatial planning, this emphasizes the two functions of the area, which are



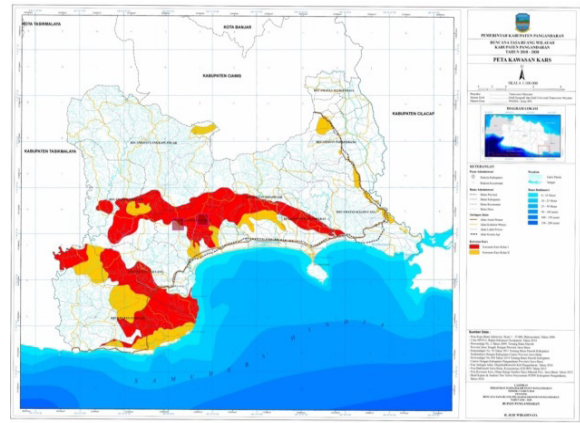
protected areas and cultivation areas. In fact, it is known that karst is an area that has the ability to absorb and store rainwater for a long time so that it is associated with UUPR as Article 5 paragraph (2), which is included as a protected area are: a. areas that provide protection to subordinate areas, including protected forest areas, peat areas and water catchment areas. Karst area in UUPR is declared as protected area in the form of water catchment area.

As Article 7 paragraph (1) of Government Regulation No. 26/2008 concerning National Spatial Planning that there are policies and strategies in the development of protected areas for the maintenance and realization of environmental functions and prevention of negative impacts of human activities that can cause environmental damage. Article 7 paragraph (2) letter a Article 8 paragraph (2) letter (a) Government Regulation Number 13 of 2017 concerning Amendment to Government Regulation Number 26 of 2008 concerning National Spatial Planning (PP RTRWN), in terms of realizing and improving strategies, both maintenance and realization of environmental sustainability and increasing integration between cultivation activities, is carried out by establishing cultivation areas and protected areas in land space, sea space, and air space, including space in the earth in synergy to create a balanced use of space the region.

Article 1 number 9 PP RTRWN jo. Article 1 number 10 PP RTRWN that what is meant by a protected area is an area designated with the main function to protect environmental sustainability which includes natural and man-made resources. While the cultivation area is an area designated with the main function to cultivate on the basis of the conditions and potential of natural resources, human resources, and artificial resources.

As Article 51 letter e PP concerning RTRWN of national protected areas, one of which is a geological protected area. Based on Article 52 paragraph (4) jo. Article 53 paragraph (1) jo. Article 60 paragraph (2) PP concerning RTRWN, karst is part of the area that has a unique landscape which is included in the geological nature reserve area. Geological nature reserve areas are included in national protected areas so that karst landscapes are included as national protected areas.

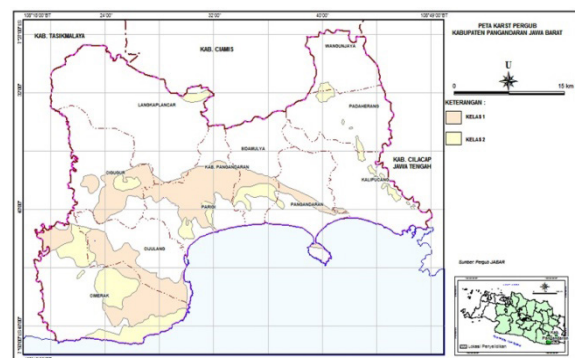
Then Article 26 paragraph (7) of the UUPR states that it is necessary to stipulate regional regulations regarding the Regional Spatial Plan. Pangandaran Regency is an area that is obliged to make Regency/City Regional Spatial Planning by developing spatial patterns in the form of Protected Areas and Cultivation Areas. Regional Regulation on RTRW of Pangandaran Regency stipulates that the protected area is a geological protected area in the form of karst area. As Figure 1 Article 41 of the Regional Regulation of the RTRW of Pangandaran Regency that the karst area covers: Cimerak District, Cijulang District, Parigi District, Sidamulih District, Pangandaran District, and Kalipuncang District.



Source: Attachment of the RTRW of Pangandaran Regency, 2018-2038

**Figure 1. Map of Pangandaran Karst Landscape Area (Regional Regulation on RTRW of Pangandaran Regency)**

Figure 1 shows the classification of Class I and Class II classifications in the Pangandaran karst landscape as Governor Regulation Number 20 of 2006 concerning the Protection of Karst Areas in West Java which forms the basis of the Regional Regulation on RTRW of Pangandaran Regency in determining the boundaries for utilizing karst areas this. This is shown in Figure 2 which explains there are karst classifications namely Class I and Class II:



Source: Attachment of Governor Regulation Number 20 of 2006 concerning Protection of Kars Area in West Java

**Figure 2. Map of Karst landscape, Governor Regulation of Pangandaran Regency**

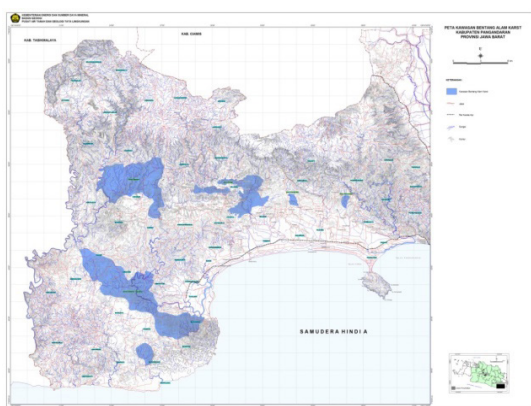
The definition of karst area, as Article 1 number 10 according to Governor Regulation Number 20 of 2006 concerning Protection of Kars Area in West Java, is carbonate rock area (limestone and or dolomite) which is concerned with the morphology of karst which is marked by conical building and dolina valley towers, caves, and stalice and rivers carry soil. Meanwhile, in the explanation of Article 41 of the Regional Regulation on RTRW of Pangandaran Regency, the karst area is a unique and rare landscape because it is only found in certain areas. The karst area is stated as a component of geological environment conservation in protected areas.

Class I classifications are used as protected areas and can be used for activities that do not degrade the quality of the physical and biophysical environment and, in their use, one of them is conducted by developing tourism based on nature, ecosystems, and culture. Whereas Class II Classification has the same function but in making use can include the development of water resources, agricultural development and animal husbandry as well as excavation and conditional mining.

The RTRW of Pangandaran Regency sets limits in utilizing karst landscape areas with the general provisions of zoning regulations, then these provisions will further serve as the basis for making use of karst landscapes by taking into account class classifications on the map.

Furthermore, Pangandaran Regency must continue to investigate spatial planning for the protection of the geological environment. This refers to the regulations regarding the Karst Landscape Area in the Ministerial Regulation of ESDM on the Determination of Karst Landscape Areas. This regulation does not stipulate a definition of a karst area but rather a Karst Landscape Area, that is, a karst that shows a specific exokarst and endokarst form. Comparing with the previous understanding of the karst region, the understanding is narrower but the Karst Landscape Area is carried out with an investigation to find out the existence of eksokarst (permanent spring, karst hill, Dolina, Uvala, Polje or Telaga) and endokarst (Underground River and spelotem).

Affirmed in Article 15 paragraph (1) jo. Paragraph (2) the Ministerial Regulation of ESDM on the Determination of Karst Landscape Areas that since this Ministerial Regulation is in force, class I karst area remains in force and must be adapted to become a Karst Landscape Area. Therefore, the class classifications that already exist in the karst area of Pangandaran Regency still apply as the RTRW of Pangandaran Regency 2018-2038 but then adjustments must be made if the Karst Landscape Area has been determined. In 2019, the Ministerial Decree of ESDM on the Determination of the Pangandaran Karst Landscape Areas, as Figure 3



Source: Ministerial Decree of Energy and Mineral Resources Number 98 K / 40 / MEM / 2019

**Figure 3. Map of Karst Landscape in Pangandaran Regency**

Harmonization and synchronization must be carried out on legal products that have been formed, in this case the Minister of Energy and Mineral Resources on the Karst Pangandaran Landscape Area, as a new regulation will cause some legal products to be out of harmony and out of sync with the newly created laws and regulations.

Based on the results of interviews with the Regional Development Planning Board of Pangandaran Regency there are indeed differences in the location of karst protected area in the Regional Regulation on RTRW of Pangandaran Regency with the Ministerial Decree of ESDM on the Determination of the Pangandaran Karst Landscape Areas.

By observing the existence of the principle of sustainable development as well as the objectives in the UUPPLH or the Spatial Planning Law related to the potential of karst areas, it is important to align and harmonize geological diversity in the form of karst as a very important landscape for the surrounding communities.

The potential of karst landscapes can be seen from an economic, scientific and socio-cultural perspective (Nurkhoiron, 2016). First from an economic point of view that the potential in the form of water use is seen from humans who are used to carry out their lives.

Economic uses are like water use, mining use, and tourism use. The karst region produces so much water that comes from the surface or underground rivers. If the utilization is done in an inappropriate way, such as changing the landscape by mining or cutting down trees excessively in karst areas or outside it, it will cut off the existing hydrological cycle so that there will be a change in the water system (Oktariadi, & Tarwedi. In the Kaustary, 2019).

Economic utilization can be done by mining such as the use of limestone which can be used as a basis for cement. Utilization in tourism is one way to maintain the environmental function of this karst area but the economy is still obtained by the community. This is because karst formations that have a uniqueness, beauty, and aesthetics when they see it in the form of hills, valleys, ponds, and beaches.

Second, there is the potential of science in the form of Archeology where karst has a very diverse history of human culture and science to study the biology of cave animals and its influential factors. Third, there are social and cultural potentials where karst has legends that have historical value. In the past, this area was a cave of dwellings from prehistoric times. Through geotourism activities, tour guides will help tourists to gain knowledge and understand the geological phenomena of an area. Rocks, fossils, faults, folds and landscapes are explained by tour guides as part of a long story of the formation of the earth which began for many years. Knowledge of the geological uniqueness is expected to be an attraction that can help improve the tourism economy of Pangandaran, especially the local community in each geosite.

The potential of this karst landscape area is related to geotourism where the nature tourism approach is based on geological diversity. This can be in the form of a diversity of landscapes, diversity of rocks such as rock types, soil types, minerals, and crystals as well as the existence of a geological process that produces geological uniqueness.

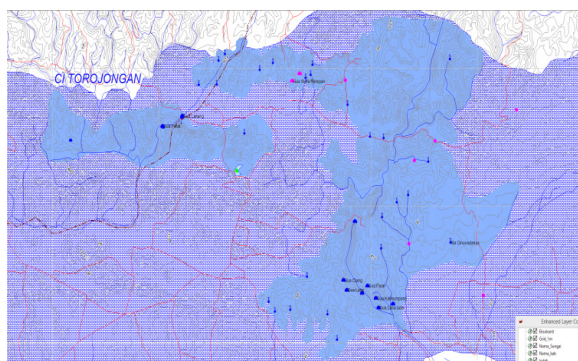
### **Geotourism in Selasari Village, Parigi District, Pangandaran Regency**

Regarding geotourism, the term geotourism began to be developed and introduced to the general public in the early 1990s. Tom Hose, an Australian geologist, defines “Geotourism is the provision of interpretation facilities and services to assist tourists in gaining knowledge and understanding the geological diversity of a site (geosite), including its contribution to the development of earth science” (Oktariadi, 2017).

Newsome & Dowling. 2010 define geo-tourism as sustainable tourism with a main focus on the evolution of the earth and geological features that encourage understanding of the environment and culture, appreciation and conservation, and this benefits local communities (Oktariadi, 2017).

Furthermore, regarding karst, which has been declared a Karst landscape area, that the use of this area as a protected area and cultivation area must be adjusted to the spatial pattern of the Spatial of Pangandaran Regency. It aims to develop tourism in Pangandaran Regency to obtain legal certainty.

Mentioned in the attachment to the Ministerial Decree of ESDM on the Determination of the Pangandaran Karst Landscape Areas, one of which is the Parigi Zone Figure 4 which contains inventories such as Endokarst in the form of Cinusadana Cave, Lanang Cave, Cave Parat, and Sutan Reregan Cave.



Source: Geological Agency

**Figure 4. Parigi zone karst landscape**

The Parigi Zone is a Parigi District, a village that is used for tourism objects contained in the Selasari Village Regulation, Parigi District, Pangandaran Regency Number 2 of 2019 concerning the Development of Tourism Villages. Article 15 paragraph (1) that the Tourism Village Development Zone is located in the Selasari Village area which includes excavation of new tourism potential and management of existing tourism objects, including

tourism objects:

- a. Santirah Body Rafting
- b. Sutan Reregan
- c. Goa Lanang
- d. Batu Lawang
- e. Pepedan Hill
- f. Cimanggu Waterfall
- g. Balundeng
- h. Citukur Cave
- i. Wana Wisata Parono (terrace)

Based on the tourism village regulations, there are attractions that are part of the Karst Landscape Area. The tourism village in Pangandaran Regency pays attention to the development of the tourism village which includes the excavation of potential, structuring, and management of the tourism area in Selasari Village as Article 3 paragraph (1) of the Selasari Village Regulation, Parigi District, Pangandaran Regency Number 2 of 2019 concerning Development of Tourism Villages. Not just utilizing the area to benefit economically, it also preserves socio-cultural values and environmental sustainability.

It should also be noted about the harmonization of law between the laws and regulations and the law that lives in the community which is reflected in the arrangement of Geotourism in Selasari Village. Article 1 point 23 of the Selasari Village Regulation Number 2 of 2019 that there is the term “cultural traditions” as a value system adopted by certain groups of people and, within them, there are values, attitudes and socio-cultural procedures believed to be able to fulfill the lives of citizens Public. In Article 1 point 24 of the village regulation, there is also an explanation of local wisdom as an expression of an individual or community that contains values, norms, and traditions or customs that are hereditary and reflect the way of life of a particular community. An example is the “culture of pamali / taboo” which applies hereditary in the use and use of environmental elements such as: water sources, land, rice fields, fields, forest areas, and marine waters, which are non-biological resources (Kurniati, 2019).

### **Achieving Sustainable Development Goals (SDGs) for Geotourism in Selasari Village, Parigi District, Pangandaran Regency**

Sustainable Development Goals (SDGs) are agendas or documents containing global goals and objectives for 2016 to 2030 as stated in Article 1 number 1 of the Regulation of the President of the Republic of Indonesia Number 59 of 2007 concerning the Implementation of Achieving Sustainable Development Goals which underlies the agenda such as the principle of sustainability and thinking about development carried out to meet current needs, and must not reduce the ability of future generations to meet their own needs (Hardjosoemantri, in Sood, 2019).

In the preamble of Law Number 32 Year 2009 concerning Environmental Protection and Management



(UUPPLH) it is emphasized that national economic development as mandated by the 1945 Constitution of the Republic of Indonesia is based on the principles of sustainable development and environmental insight. Sustainable Development explained in Article 1 number 3 of the UUPPLH is that a conscious and planned effort that integrates environmental, social, and economic aspects into a development strategy to ensure environmental integrity and safety, capability, welfare, and quality of life based on goals, objectives, and indicators that are adjusted to the situation of Indonesia. This is as regulated in Presidential Regulation No. 59 of 2017 concerning the Implementation of Achievement of Sustainable Development Goals (SDGs) which contains 17 goals and one of them is SDGs 15 to protect and enhance the sustainable use of terrestrial ecosystems. Karst area is a terrestrial ecosystem that affects the life cycle of the flora, fauna and creatures that surround it so that its utilization and management must be protected.

Carry out development in tourism to achieve SDGs point 15 that one of the points is the preservation of terrestrial ecosystems so that it is necessary to adjust the Karst Landscape Area in the RTRW so that the geotourism being carried out by the surrounding community can still utilize karst as a tourist attraction. This effort is also carried out by minimizing damage or optimal use. One way is to know the boundaries that must be imposed on areas that have been declared Karst Landscape Areas.

#### **Constraints faced in achieving Sustainable Development Goals (SDGs) 15 for Geotourism in the Karst Landscape Area of Selasari Village, Parigi District, Pangandaran Regency**

Development in an area, in this case Pangandaran Regency, especially in the karst area of Selasari Village, Parigi District, can improve the welfare of the community but there must still be guarantees for sustainable development. The concept of Sustainable Development Goals pays attention to 3 (three) main aspects in carrying out development such as economic aspects, social aspects, and environmental aspects.

Linking the existence of Geotourism practices where the concept of Geotourism is conservation-based tourism, to the environment with geological diversity, one of which is the karst landscape. This is intended to realize the preservation of terrestrial ecosystems as Sustainable Development Goals 15 as an environmental aspect.

Development through tourism will develop an economy that can continue to increase economic growth and welfare (Economically Viable) but the development of the community economy must be in accordance with the culture of society and the norms that exist in the community (Socially Acceptable) and must create sustainable development that considers environmental aspects, in terms of considering the capacity and carrying capacity of the environment (Environmentally Sustainable) (Sukarsa, 2017)

The obstacle faced in the context of preservation of terrestrial ecosystems is that this karst area, based on the interview with community component representatives Selasari Village refers to the condition of environmental utilization carried out by the community, as well as planning and law enforcement by local government and Government of Selasari Village.

Constraints allow the exploitation of natural resources in the form of mining. In Oki Oktariadi's opinion that based on the results of geological research, there are potential building materials such as Calcite which are scattered in several locations, one of them is in the Village of Selasari, Parigi District (Oktariadi, 2019). Communities or parties who obtain government permits can do rock mining, tree cutting. Another obstacle occurs in the karst hills which are not widely used properly and planned if the spatial pattern of protected areas and cultivation areas is not well planned.

After the Pangandaran Karst Landscape Area is determined, it will cause an area that is not a geological protected area. Then when the area has become a current geotourism activity, the impact on uncertainty will be a cultivation area or will become a protected area. The area that was previously included in the geological protected area in the form of karst area according to the RTRW of Pangandaran Regency in 2018-2038, was apparently issued according to the Ministerial Decree of ESDM on the Determination of the Pangandaran Karst Landscape Areas as the map of this region based on the Ministerial Regulation of ESDM on the Determination of Karst Landscape Area. Reducing the existing location in this RTRW can lead to uncertainty of legal protection for the protection and management of natural resources in the karst area.

SDGs 15 is one of the environmental aspects in sustainable development so Geotourism, which is seen from the perspective of realizing environmental preservation in the Karstas District of Selasari Village, Parigi District, Pangandaran Regency, requires complete legal protection and harmony with other regulations. This is aimed at the development and development of the tourism village in order to be realized as a subsystem of the tourism system in Pangandaran Regency.

Pangandaran is expected by the provincial and central government to become one of the world's tourist destinations. This is because Pangandaran has been designated as one of the National Tourism Strategic Areas as per Government Regulation Number 50 of 2011 concerning the National Tourism Development Master Plan 2010-2025.

If in the future the utilization of geological resources tends to be exploitative through mining activities so that some geological diversity with a value of geological heritage is threatened, national problems, or geotourism activities are not specified management limits, in addition to harmonizing the karst area protection regulations and

the RTRW, the implementation of geotourism is required which refers to the Regional Medium-Term Development Plan (RPJMD) and the Regional Long-Term Development Plan (RPJPD).

## CONCLUSION

After Ministerial Regulation of ESDM on the Determination of Karst Landscape Areas, the issuance of the Ministerial Decree of ESDM on the Determination of the Pangandaran Karst Landscape Areas resulted in a disharmony against the Regional Regulation on RTRW of Pangandaran Regency and uncertainty arises which impacts on the spatial pattern of cultivated and protected areas. The Pangandaran Karst Landscape has a unique karst landscape that is utilized for geotourism, karst is one of the terrestrial ecosystems so that with harmonious arrangements will create the achievement of Sustainable Development Goals 15. Against obstacles in achieving SDGs 15 such as the need for caution in the use of geotourism, condition of the utilization of the Tourism Village environment that has not been done optimally. At present, there is only one regulation that discusses karst landscape area, namely Ministerial Decree of Energy and Mineral Resources (ESDM) No. 17 of 2012 concerning the Establishment of Karst Landscape Areas. The obstacle faced is the absence of regulations that have a complete perspective to preserve and protect karst landscapes.

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