

HARMONIZING THE RIGHTS OF WATER RESOURCES REGULATION BASED ON ECOLOGICAL JUSTICE

I Gusti Ayu Ketut Rachmi Handayani,
Erna Dyah Kusumawati,
Henning Gasser,
Seguito Monteiro,
Abdul Kadir Jaelani,
Fatma Ulfatun Najicha

ABSTRACT

This research is motivated by the decision of the Constitutional Court (MK) which completely annulled Law no. 7 of 2004 concerning Water Resources (SDA Law). This research is a normative legal research, this research seeks to find the correlation and coherence of constitutionality problems between the first test through the Constitutional Court decision No. 058-059-060-063 / PUU-II / 2004 and No. 008 / PUU-III / 2005 with a second test through No. 85 / PUU-XI / 2013. The results showed that after the Constitutional Court decision there was a paradigm shift in control of water resources by the private sector and / or foreign parties which were monopolistic and exploitative in nature which had the potential to cause social conflict. The cancellation of the SDA Law by the Constitutional Court reopened a new page of struggle to fight water commodification contained in the SDA Law which was influenced by the interests of water privatization promoted by the World Bank and the International Monetary Fund (IMF).

Key words: Water Resources; Regulation; Ecological Justice.

INTRODUCTION

The annulment of Law Number 4 of 2007 concerning Water Resources (SDA Law) through the Constitutional Court Decision is a monumental decision because this decision is the second time the Constitutional Court has decided to cancel the entirety through review of norm material. There are several interesting things which then arise which are considered unsolvable. In addition, the question that is then interesting is whether the constitutional issue arising from the enactment of the SDA Law which then the Constitutional Court in the end canceled the entire SDA Law. (Nurhayati & Karjoko, 2019)

When looking at the posture of the Natural Resources Law in its entirety, and the historical journey of its testing, it cannot be separated from the constitutional review of several laws in the field of other natural resources. The issue of privatization, commercialization, globalization vs. state sovereignty over natural resources has indeed become a soft cushion covering the review of laws in the field of natural resources. The issues of privatization and commercialization are, for some, still a classic myth that should not be gossiped about in the modern era and industrialization, but for some opinions that the national framework and national interests wrapped in sovereignty are non-negotiable filters. Such a situation ultimately provides a position for some of the elements in the country to participate in guarding the desired values for the enforcement of the law which they consider touch the public interest, in this case for example the SDA Law. (Karjoko, 2017)

In the midst of the situation and conditions of economic globalization that have resulted in privatization and / or commercialization of water resources, the potential for water in Indonesia is facing threats. It is also indicated that the growth of bottled drinking water (AMDK) industry is experiencing a rapid increase. The proliferation of bottled drinking water (AMDK) business has implications for the increasing number of areas that become targets of water exploitation. A number of conflicts over the use of water resources continue to occur in line with the pace of investment which tends to be detrimental to environmental sustainability. Take a look, for example, of water exploitation by a multinational company in Curug Goong Village, Padarincang, Serang, Banten. The community was anxious because they were worried that the company would take control of the Cirahab springs. ⁵ This was the case with the conflict between PT. The Rayja and the Bulukerto community of Bumi Aji District for the establishment of a hotel and resort area above the Gemulo spring. The conflict occurred due to anxiety over the water crisis, and the weakness of the government because it violated applicable laws. Following the provisions on buildings around the water source area, the minimum distance should be 200 m. In planning the hotel distance is 150 m, which has the potential to damage water sources. (Utomo & Karjoko, 2018)

It does not stop at the case referred to above, the practice of exploitation of water resources continues to go along with the pace of development. There were also conflicts that occurred in the form of rejection by residents of Rembang Regency against the construction of a cement factory by PT. Semen Indonesia due to its factory location and mining exploitation location in the Watuputih Groundwater Basin (CAT) area. This area is an area that has the function of storing water reserves. The results of groundwater research on Mount Watuputih by the Mining Service of Central Java Province in March 1998 explained that Mount Watuputih and its surroundings are physiographically classified as a karst landscape type. There is a unique natural phenomenon with natural caves and underground rivers. The results of field data collection conducted by the Semarang Caver Association (SCA) and the Kendeng Mountains Care Community Network (JMPPK) Rembang, there are caves scattered in the area. Among them are caves that have underground rivers that are still active. The mining business license issued by the Rembang

Regency government recommends PT. Semen Gresik (Persero) Tbk to carry out mining in the area that is included in the Watuputih CAT area covering an area of 131.55 hectares (1,315,500 m²). (Karjoko, 2017).

If the area mentioned above is mined, there will be a big risk, namely the potential loss of water sources. Apart from that the ecological impact due to the loss of the function of water absorption in the Watuputih CAT area, will threaten 607,198 people in 14 sub-districts, Rembang Regency which have been dependent on the area so far. In addition, in the context of a disaster, the loss of absorption function causes the loss of time lag for water to be stored so that during the rainy season, water that should be absorbed into the ground will turn into surface water / run off. When the water exceeds the peak discharge, the incoming rainwater will quickly disappear as surface water flow. This can result in flooding in plain areas that are directly connected to the Watershed (DAS) which leads to CAT Watuputih. The author views that the Watuputih Groundwater Basin (CAT) area is a stretch of karst area so that mining activities are prohibited. If the factory construction continues, the water absorption function of the Watuputih CAT area will disappear and threaten more than 607,198 people in 4 sub-districts whose water needs are supplied from this area. In the context of industrialization that is currently breaking out in Indonesia, the authors view that the empirical practice of development and investment which tends not to pay attention to the carrying capacity and carrying capacity of environmental sustainability will further accelerate ecological disasters as currently threatening many areas in Indonesia. (Karjoko, Santosa, & Rachmi Handayani, 2019)

Based on the situation and conditions of conflict over Water Resources and the revocation of regulations on Water Resources as described above, the political direction of the legislation on the Water Resources Law has generated various debates. Even though the Constitutional Court has given a decision on the a quo Law through Decisions Number 058- 059-060-063 / PUU-II / 2004 and Number 008 / PUU-III / 2005 and declared a conditional constitution, the elaboration of the Constitutional Court Decision has not been fully implemented. These matters are inseparable from the substance of the Act in question which provides concessions for foreign investors in managing water resources. In the end, the Constitutional Court (MK) affirmed through Decision Number 85 / PUU-XII / 2013 which in its decision nullifies the overall enforcement of Law Number 7 of 2004 concerning Water Resources because it does not fulfill the six basic principles of limiting resource management. water. In its consideration, the Constitutional Court stated that water resources are part of human rights, the resources contained in water are also needed by humans to meet other needs, such as for agricultural irrigation, power generation, and for industrial purposes, which have an important contribution to the progress of life humans and become an important factor for humans to live properly. (Karjoko, 2017)

The constitutional requirements of the SDA Law are that the SDA Law in its implementation must guarantee the realization of the constitutional mandate regarding the state's control over water. State control rights over water can be said to exist when the state, which is mandated by the 1945 Constitution to make policies (beleid), is still in control in implementing management actions (bestuursdaad), regulatory actions (regelendaad), management actions (beheersdaad), and actions supervision (toezichhoudensdaad). Based on the description above, the focus of the problems to be discussed is the correlation and coherence of constitutionality problems between the first test through decision No. and the Constitutional Court decision No. 058- 059-060-063 / PUU-II / 2004 and No. 008 / PUU-III / 2005 with a second test through No. 85 / PUU-XI / 2013 could result in the nullification of the SDA Law. (Handayani, 2015)

RESERCH METHOD

This research is structured using a normative legal research methodology. The data in the research were collected either through literature study or document study. The research was conducted on primary, secondary and tertiary legal materials. Based on what has been stated previously, this research has a focus of study, namely the constitutional Purification of Water Resources. Research This research makes library material as its main component. Secondary legal materials in this study include: (i) various books that describe legal concepts of natural resources in general and their implementation in various countries, (ii) various books on application of law and political influence on these applications, (iii) various articles, papers, journals, magazines, and other recorded matters relating to developments in the implementation of the concept of law and water resources. Tertiary legal materials consist of, among others (i) legal dictionaries, (i) political dictionaries, (iii) and various other dictionaries relevant to legal and political studies. (Candrasari & Karjoko, 2018)

RESULTS AND DISCUSSION

Law in the field of water in Indonesia is inseparable from another important issue, namely the right to water and water rights. Water rights or rights to water are two powerful arguments in the formation of water laws anywhere in the world. In 1995, the Vice President of the World Bank (World Bank) stated, "If the wars of this century are mostly caused by oil disputes, future wars will be triggered by water." That phrase is no joke. The following data provides a glimpse of why water is such an important issue that it has become a trigger for future wars. (Sari & Karjoko, 2018)

Of all the water on earth, only 2.35% is freshwater, the rest is sea water (saltwater). Of this 2.35% fresh water, two-thirds are trapped in glaciers and covered in permanent snow. The remaining one-third is still littered with pollution. According to data, there are about 2 million tons of fresh water every day wasted because of pollution and others. Meanwhile, in line with global climate change, water scarcity will increase by 20% in the next 25 years. On the other hand, the population continues to increase and the need for agricultural land to feed the earth's population is also increasing. (Handayani, 2015)

This data is supported by many studies. One of them is a research conducted by the International Water Management Institute (IWMI), a research center under a body called the Consultative Group on International Agricultural Research (CGIAR). From the results of its research, IWMI found that one third of the world's population is expected to experience severe water scarcity in the period up to 2025. This situation is expected to trigger conflicts and political crises, and even wars, especially in Asia and the Middle East. In the 3rd world, Ryutaro Hashimoto said that for the sake of harmonizing world life, humanity must eliminate water scarcity, food contamination, unhealthy quality of life and the danger of flooding, therefore this forum can be used as a momentum to make the earth a more comfortable place. The world's attention to the value of water actually started a decade before Hashimoto spoke at the 3rd World Water Forum, which was marked by the 1992 Rio Earth Summit as a follow-up to the International Conference on Water and Environment held in Dublin the same year. (M. -, 2014)

At the conference, what were called the "Dublin Principles", which contained guidelines, namely:

1. Fresh water is a natural resource that is finite and vulnerable or vulnerable, which is essential for the sustainability of life, development and the environment;
2. Water governance and development should be based on a participatory approach, involving the participation of users, planners and policy makers at all levels;
3. Women play a central role in providing, regulating and saving resources;
4. Water has economic value for all its competing users and should be treated as an economic good.

Of these principles, in particular the first principle (with regard to water scarcity) and the fourth principle (water as economic good) then becomes the main basis of all international water policy proposals made thereafter. In particular, the World Bank used it as a reference for drafting and changing its policy framework since 1993. Armed with the Rio Environmental Summit and the 1992 Dublin Conference, the World Bank drafted a new water policy in 1993 and disseminated it to direct debtor countries that same year. If during the previous three decades the World Bank focused its investment on water resources infrastructure, since 1993 the World Bank has shifted its attention to legal and institutional reforms to streamline the world water market mechanism. (Ketut Rachmi Handayani, 2013)

The desire of world financial institutions and the investor countries behind them to make water an economic good, as seen in the Dublin Principles, cannot be separated from the conclusion previously stated that water has been, is and will become an increasingly scarce item. It is this scarcity that encourages international financial institutions and rich countries to bring water into the economic framework of capitalism, namely that the rarer an object is, the higher its economic value. In Indonesia, the Indonesian Parliament on February 19, 2004 passed the Water Resources Bill (RUU) into a new law. The Draft Law was signed by the President on 18 March 2004 to become Law no. 7 of 2004 concerning Water Resources, State Gazette of the Republic of Indonesia of 2004 No. 32. Supplement to the State Gazette of the Republic of Indonesia Number 4377. (T. A. R. -, -, & -, 2016)

The Water Resources Law (UUSDA) was created to replace Law of the Republic of Indonesia No.11 of 1974 concerning Irrigation. Commission IV DPR RI plans to ratify this Water Resources Bill on September 23, 2003 and has been delayed up to 3 times due to disagreements between faction members and between commissions and between technical ministries. Complaints through the mass media include, among others, the State Ministry for Research and Technology, the Ministry of Environment, the Ministry of Finance, the Ministry of Home Affairs and the Ministry of Energy and Mineral Resources. The UUSDA's content, which was considered by its opponents to be very neoliberalistic, generated waves of blasphemy, protests and complaints, especially from non-governmental organizations (NGOs). Some of them have even filed a request for a judicial review of the law to the Constitutional Court of the Republic of Indonesia (MKRI). The main argument put forward by the applicants for the judicial review is that the Water Resources Law has violated the people's constitutional rights to water and its sources. Controversy has actually occurred since the UUSDA was first proposed as a bill to the House of Representatives (DPR). The submission of the Water Resources Bill by the government to the DPR that seems out of place is the result of pressure from the World Bank through a Water Resources Sector Adjustment Loan (WATSAL) Program which relies on loan disbursements on the Indonesian government's achievements in seeking to enact the Water Resources Law in accordance with the global water agenda. has been formed through the results of the world meeting. (Akhmaddhian, Hartiwingsih, & Handayani, 2017)

The spirit of liberalization in the water sector in the SDA Law does appear to be prominent. From the provisions contained in the law, such as articles relating to licenses, the role of the private sector, the water market, water use rights, water control and others, it can be easily understood that the spirit of this law is a new view of commercial value. water as an economic commodity that appears to be more prominent than its social value as a public good. In the effort to liberalize water supply, for example, the framework used is not against the position of water as public good, but by categorizing water exploitation as a form of service industry related to water supply. In other words, supporters of water liberalization argue that what they sell is not the water, but the services, such as water refineries, distillation, bottling, and so on.

Jimly Asshiddiqie emphasized that one of the main principles of the rule of law (*rechtsstaat*) is "the existence of constitutional protection of human rights with legal guarantees for their enforcement demands through a fair process." Agreeing with that, Bagir Manan stated in his book *Theory and Politics of the Constitution: The state based on the constitution*, contains at least two meanings. First; regulations regarding the limits of the role of the State or government in interfering in the life and interactions of the people. Second; legal guarantees and rights, both civil and personal rights (individual rights), political rights (political rights), as well as the rights of a group or social [sic]. (Handayani, 2015)

In terms of the right to water, Indonesian citizens are actually quite lucky, because Article 33 paragraph (3) of the 1945 Constitution has contained written provisions regarding the earth, water and the wealth in it. Even though the perspective is the control of the state, control here means more as the "obligation" of the state, as an implication of the public interest in the land, water and the wealth contained therein in which the state is obliged to control (and protect) it in such a way. such that it can be used for the greatest prosperity of its people. The hope that the reality of water scarcity should not be seen as an economic opportunity as in the logic of liberal liberal capitalism, but rather see it as a threat to human survival, so that what should be put forward is constitutional protection of human rights to water and their access to its sources. Included in that is the protection of the state over the water resources themselves which must be preserved to protect the constitutional rights of future generations to one of the most important sources of life, namely water. In this perspective, regulations should be made and enforced not only to protect private property rights, which are implemented in giving the widest possible space to the private sector to capitalize water into a trading commodity, but to protect water as a basic human need so that it is not wasted. exploited, destroyed or deprived of their sources.(Karjoko, 2017)

Based on Article 33 of the 1945 Constitution and the elaboration of its meaning in Article 2 of Law No.5 of 1960 concerning Basic Agrarian Regulations (UUPA), in principle it can be said that Indonesia does not recognize civil ownership rights over water. This is because water was given by God to the Indonesian people. Then the water is entrusted to the state as a trustee with a 'right to control' as further stipulated in Article 2 of the UUPA which limits the state to only exercise its power over water in the framework of "to achieve the greatest prosperity of the people, in the sense of happiness, welfare and independence in society and the Indonesian constitutional state which is sovereign, just and prosperous". Therefore, basically, water in Indonesia is not under anyone's control except in the power of the state itself - not individuals, let alone corporations. Then, the people, with human rights guaranteed to them by the Constitution, have the right to get access to water for the fulfillment of basic needs of life and livelihood.(Hutomo & Karjoko, 2018)

The conception of "controlled by the state" as contained in Article 33 paragraph (3) of the 1945 Constitution, is further confirmed by the excellent interpretation of the Constitutional Court in case number 01-021-022 / PUU-I / 2003 regarding the review of Law no.20 years 2002 and 02 / PUU-I / 2003 regarding the review of Law Number 22 of 2002 concerning Oil and Gas, dated December 1, 2004, which formulated that control of the country was something higher than ownership at the time of the economic crisis that hit Asia in 1997 which led to the collapse of the Indonesian economy and a deficit in the balance of payments, ultimately prompting the Government to seek 'quick qisburse' loans to support Indonesia's negative balance of payments at that time. In this regard, the World Bank offers loans such as Structural Adjustment Loans (SAL) to the Indonesian government, subject to structural changes (institutional, regulatory and management of certain sectors).(Utomo & Karjoko, 2018)

In the judicial review decision on the SDA Law, the Constitutional Court stated that it did not find any constitutional violations of all the provisions contained in the SDA Law. Based on the considerations put forward in the decision, it appears that the Constitutional Court is trying to align the UUSDA with the spirit of the constitution without forgetting the developing global reality. This, for example, can be read from the viewpoint of the Constitutional Court on the issue of human rights to water. In considering the state's obligations to human rights to water, the Constitutional Court is of the opinion that apart from the obligation to guarantee human rights in respect, protection and fulfillment of human basic needs for water, the use of water resources for secondary needs must also be regulated, because this, according to the Constitutional Court, is no less important for humans in order to live.(C. Gueymard, 1989)

In addition, the Constitutional Court also stated that the UUSDA is conditionally constitutional. That is, the UUSDA is considered not contradicting the 1945 Constitution if its implementation is in line with the Constitutional Court's interpretation of the provisions contained in it. Several interpretations of the Constitutional Court have saved the SDA Law from its original intent as stated in the WATSAL program or the Decree of the Coordinating Minister for the Economy of 2001. However, it turns out that PP No. 16 of 2005 concerning the Development of a Drinking Water Supply System as the implementation of the UUSDA actually returns the original intent of the SDA Law, particularly regarding full cost recovery. 48 The World Bank mentions no less than 41 times the words cost recovery or full cost recovery in various issues discussed. This shows how important this problem is in the eyes of the World Bank. This full cost recovery policy is stated more explicitly and in detail in Government Regulation no. 16 of 2005. Article 60 paragraph (3) clearly states that based on the components that are taken into account in determining the amount of drinking water tariff, the price of drinking water that must be paid from the start is definitely a commercial price or an economic price. Apart from the provisions regarding prices, Article 1 point 9 also emphasizes the involvement of the private sector in the drinking water supply system. Then Article 64 regulates in more detail the role of the private sector in the operation of the drinking water supply system.(Candrasari & Karjoko, 2018)

With the issuance of PP. 16 of 2005, especially with the existence of regulations regarding the determination of the cost of water resources management services (full cost recovery), has clearly and clearly contradicts the interpretation of the Constitutional Court which places UUSDA as conditionally constitutional. So it is better if the community can re-apply for a judicial review of the SDA Law. The journey of water law in Indonesia faced challenges when entering 2013. In that year the SDA Law was again tested for its second volume with the support of the influential religious organization in Indonesia, namely Muhammadiyah. Regardless of the movement's tagline with constitutional jihad. The idea in the test carried out is based on several continuity of similar thoughts expressed in the review of the SDA Law in volume 1. The reason for the broad examination is that the water law must be tried again through the existing constitutional mechanism. The overall decision to cancel the implementation of the SDA Law is an interesting matter. This is because the cancellation coincides with the reintroduction of Law No. 11 of 1974 on Waters. The verdict, which was nuanced by ultrapetita and ultraviresistence, positioned the construction of the review of laws in the natural resources sector in Indonesia.(C. A. Gueymard & Ruiz-Arias, 2015)

The Constitutional Court in its decision has considered that in water exploitation there must be very strict restrictions as an effort to preserve and sustain the availability of water for the life of the nation. The court further explained that if after all of the aforementioned restrictions have been met and it turns out that there is still water availability, it is still possible for the Government to grant permits to private businesses to exploit water with certain and strict conditions. The Court's review of the mandate contained in Article 33 paragraph (3) of the 1945 Constitution, particularly regarding water resources, led the Court to the conclusion that access to water is part of human rights. This is reinforced by the views of the international community which are reflected in the acceptance of the UN Committee on Economic, Social and Cultural Rights of its General Comment on the right to health as stated in Article 12 (1) of the ICESCR, which has also been quoted in the decision. The Court, which stated, "The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health". (Ketut Rachmi Handayani, 2013)

In the legal consideration of the decision, the Court further stated, among other things, "The General Commentary interprets the right to health as an inclusive right which includes not only continuous and appropriate health services but also includes factors that determine good health, including one of the following: in it is access to safe drinking water. In 2002 the Committee further recognized that access to water is a separate human right. " Therefore, the Court then emphasized that as part of human rights, the state is obliged to respect (to respect), protect (to protect), and fulfill (to fulfill). At the same time, the Court also emphasized that the three aspects of human rights to water, namely respect, protection and fulfillment, not only concern the present needs but also must be guaranteed its sustainability for the future because it involves human existence. *Jaminan bahwa negara masih tetap memegang hak penguasaannya atas air itu menjadi syarat yang tak dapat ditiadakan dalam menilai konstitusionalitas UU SDA sebab hanya dengan cara sebagaimana ditegaskan dalam Putusan Mahkamah Nomor 058-059-060-063/ PUU-II/2004 dan Nomor 008/PUU-III/2005 tersebut, dapat diwujudkan hak penguasaan atas air.* (T. A. R. - et al., 2016)

CONCLUSION

The Constitutional Court's decision canceling the existence of the SDA Law opens an opportunity to end the water commodification and privatization regime in Indonesia. Muhammadiyah became an important actor in making these changes which made water resources management can be returned to the ideals of the founders of the republic as stated in Article 33 Paragraph (3) of the 1945 Constitution. Even though the constitutional jihad carried out by Muhammadiyah was one of the important driving forces in this regard. However, it cannot be denied that the composition of judges that has changed greatly determines how the SDA Law can be declared contrary to the 1945 Constitution. The Constitutional Court's decision in the Judicial Review of the SDA Law proposed by Muhammadiyah was a refinement of the previous Constitutional Court Decision. In the review of the first SDA Law in 2005 there were doubts from 7 judges of the Constitutional Court regarding the constitutionality of the SDA Law, therefore a conditionally constitutional clause was made, in other words the SDA Law could be submitted back to the Constitutional Court if its implementation contradicts the principles of water resource management that have been considered. The MK in its decision. This is what Muhammadiyah has put to good use to make corrections to regulations that are neoliberalist water resources and in practice are detrimental to the little people.

REFERENCES

- Ketut Rachmi Handayani, I. G. A. (2013). Pembentukan Peraturan Daerah Berbasis Lingkungan Dalam Rangka Mewujudkan Praktik-Praktik Good Governance Di Daerah. *Yustisia Jurnal Hukum*, 2(1), 66–73. <https://doi.org/10.20961/yustisia.v2i1.11072>
- Nurhayati, I., & Karjoko, L. (2019). *CIVIL RELATIONS REGULATION AFTER THE EXPIRATION OF BUILDING*. 4(1), 28–34.
- Sari, I. M., & Karjoko, L. (2018). The Rationality on Regulation of Village Government Function on First-Time Land Registration to Form the Land Ownership Certainty in Indonesia. *International Journal of Multicultural and Multireligious Understanding*, 5(4), 308. <https://doi.org/10.18415/ijmmu.v5i4.274>
- Utomo, R. N., & Karjoko, L. (2018). Role of the Shareholders within the Composition of Authentic Deed by the Notary. *International Journal of Multicultural and Multireligious Understanding*, 5(3), 307. <https://doi.org/10.18415/ijmmu.v5i3.428>
- , M. (2014). HUBUNGAN KEMANDIRIAN PERADILAN DENGAN KEYAKINAN HAKIM MAHKAMAH KONSTITUSI UNTUK PENEGAKAN KEADILAN. *Yustisia Jurnal Hukum*, 3(1), 16–24. <https://doi.org/10.20961/yustisia.v3i1.10104>
- , T. A. R., -, I. G. A. K. R. H., & -, P. S. (2016). Inefficiency of Forestry Regulations and Management Applicability on Rosewood (Dalbergia. Spp) Exploitation in Madagascar: Case Study of Marojejy and Masoala National Parks. *Researchers World : Journal of Arts, Science and Commerce*, VII(3), 41–47. <https://doi.org/10.18843/rwjasc/v7i3/05>
- Akhmaddhian, S., Hartiwiningsih, & Handayani, I. G. A. K. R. (2017). The government policy of water resources conservation to embodying sustainable development goals: Study in Kuningan, Indonesia. *International Journal of Civil Engineering and Technology*, 8(12), 419–428.
- Candrasari, L. S. D., & Karjoko, L. (2018). The Principle of Social Function of Land Cultivation Right in Agritourism Accommodation in Indonesia. *International Journal of Multicultural and Multireligious Understanding*, 5(2), 271. <https://doi.org/10.18415/ijmmu.v5i2.374>
- Gueymard, C. (1989). A two-band model for the calculation of clear sky solar irradiance, illuminance, and photosynthetically active radiation at the earth's surface. *Solar Energy*, 43(5), 253–265. [https://doi.org/10.1016/0038-092X\(89\)90113-8](https://doi.org/10.1016/0038-092X(89)90113-8)
- Gueymard, C. A., & Ruiz-Arias, J. A. (2015). Validation of direct normal irradiance predictions under arid conditions: A review of radiative models and their turbidity-dependent performance. *Renewable and Sustainable Energy Reviews*, Vol. 45, pp. 379–396. <https://doi.org/10.1016/j.rser.2015.01.065>
- Handayani, I. G. A. K. R. (2015). Formulasi Legislative Drafting Yang Ideal Dalam Rangka Mewujudkan Negara Hukum Yang

- Demokratis Dan Menjunjung Nilai-Nilai Lingkungan. *Jurnal Hukum Ius Quia Iustum*, 22(3), 373–393. <https://doi.org/10.20885/iustum.vol22.iss3.art3>
- Hutomo, A. S., & Karjoko, L. (2018). Issuance Legality of the Ownership Certificate for the Riparian Area and Its Legal Consequences in Sukoharjo Regency. *International Journal of Multicultural and Multireligious Understanding*, 5(2), 239. <https://doi.org/10.18415/ijmmu.v5i2.328>
- Karjoko, L. (2017). Setting of Plantation Land Area Limitation Based on Social Function Principles of Land Cultivation Rights To Realize Social Welfare-Promoting Plantation. *Jurnal Dinamika Hukum*, 17(1), 1. <https://doi.org/10.20884/1.jdh.2017.17.1.606>
- Karjoko, L., Santosa, J., & Rachmi Handayani, I. G. A. K. (2019). Disfungsi Peraturan Perundang-Undangan Tanggung Jawab Sosial dan Lingkungan di Indonesia. *Jurnal Hukum Ius Quia Iustum*, 26(2), 305–325. <https://doi.org/10.20885/iustum.vol26.iss2.art5>
- Ketut Rachmi Handayani, I. G. A. (2013). Pembentukan Peraturan Daerah Berbasis Lingkungan Dalam Rangka Mewujudkan Praktik-Praktik Good Governance Di Daerah. *Yustisia Jurnal Hukum*, 2(1), 66–73. <https://doi.org/10.20961/yustisia.v2i1.11072>
- Nurhayati, I., & Karjoko, L. (2019). *CIVIL RELATIONS REGULATION AFTER THE EXPIRATION OF BUILDING*. 4(1), 28–34.
- Sari, I. M., & Karjoko, L. (2018). The Rationality on Regulation of Village Government Function on First-Time Land Registration to Form the Land Ownership Certainty in Indonesia. *International Journal of Multicultural and Multireligious Understanding*, 5(4), 308. <https://doi.org/10.18415/ijmmu.v5i4.274>
- Utomo, R. N., & Karjoko, L. (2018). Role of the Shareholders within the Composition of Authentic Deed by the Notary. *International Journal of Multicultural and Multireligious Understanding*, 5(3), 307. <https://doi.org/10.18415/ijmmu.v5i3.428>