

Critical analysis of River Basin Management Regulation in Bengawan Solo for Water Tourism: Local Legislation in 7 Regency

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Abstract: - Indonesia is a legal state in Southeast Asia. Therefore every policy that is born must be following applicable regulations, unfortunately, not all objects in Indonesia have regulations that govern and one of them is the Bengawan Solo watershed. This situation makes the Bengawan Solo watershed vulnerable to damage and difficult to develop. Even though the Bengawan Solo watershed has great potential, one of which is the development of water tourism. With natural conditions that support the development of water tourism, it is suitable to be developed in the Bengawan Solo watershed area, but before it is developed into water tourism, it should have special regulations for the sustainability of the Bengawan Solo watershed. This research is research that uses qualitative data and a critical legal approach, then coupled with field observations. The results of the research in this study are: (1) there are no specific rules regarding the Bengawan Solo watershed, but there are rules that are still general regarding Bengawan Solo management policies. (2) the potential for the development of water tourism in the Bengawan Solo watershed is quite potent and has an impact on the preservation of the Bengawan Solo watershed and provides additional income for the community. (3) the opportunity to make special regulations regarding the Bengawan Solo watershed still exists, because it can take as an example the presidential regulation regarding the Citarum watershed.

Key-Words: - Watershed, Indonesia, Bengawan Solo, Regulation.

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1 Introduction

Indonesia is a constitutional state and has a goal of improving the welfare of its people, but in practice, it is often problematic, [1]. Among the legal issues that often occur is the problem of environmental damage, [2]. Then various environmental problems occur in Indonesia, such as forest destruction, [3], [4], pollution of rivers, [5], and watersheds, [6], damage to coral reefs, [7], marine pollution, and damage to land due to illegal mining.

Cases of environmental damage in Indonesia that are often overlooked are cases of damage to rivers and watersheds, [8]. Indonesia has the highest pollution index in terms of river pollution and watershed pollution, [9], [10]. Several watersheds in

Indonesia are categorized as critical watersheds and must be restored immediately. Watersheds in Indonesia have an important role in the source of life in Indonesia. Several watersheds in Indonesia are used as a place to work and find food. One of them is the Bengawan Solo watershed.

The location of the Bengawan Solo watershed is on the island of Java and divides the island of Java, [6]. Bengawan Solo Watershed is a watershed that has a long process of formation, starting from ancient times to the kingdom era in Indonesia. Unfortunately, the condition of the Bengawan Solo watershed has decreased in quality, [11]. Water pollution in the Bengawan Solo watershed due to

textile waste is the cause, pollution from the waste of residents adds to the problems of the Bengawan Solo watershed and the loss of trees in the Bengawan Solo watershed area reduces the quality of the function of the Bengawan Solo watershed.

Having historical status and being a source of life for living things, the Bengawan Solo watershed does not yet have a special legal basis made for the Bengawan Solo watershed. several areas included in the scope of the Bengawan Solo watershed also do not have regional regulations specifically made for the Bengawan Solo watershed. This situation did occur because the central government withdrew authority from the regions related to the management of the Bengawan Solo watershed. However, the regions still have opportunities to manage the Bengawan Solo watershed, although they do not have to make special regional regulations.

Taking advantage of the opportunity to manage the Bengawan Solo watershed can occur if tourism routes are made in each regional area that the Bengawan Solo watershed traverses. Tourism is one of the biggest income contributors in Indonesia. Tourism management can also be carried out by local governments, thus providing benefits.

2 Methods

This research is research with qualitative data and uses a critical approach, using the theory of critical legal studies as well as field observations. Qualitative research with a critical approach is a combination of theoretical research where the data taken is qualitative and then analyzed with a critical approach from the theory of critical legal studies, this theory is a theory used to conduct analytical studies of legal regulations that are biased and not by the needs of social order. Based on the data that has been collected, qualitative research with a critical approach is carried out in the following steps: first, by collecting regulations that are by the research object, namely the Bengawan Solo watershed, second, by selecting these regulations according to the theme used, third, analyzing the substance of selected rules. Thus the research approach used is very suitable to be used to reveal the management of the Bengawan Solo watershed and provide solutions with a water tourism development approach.

Water tourism is considered the solution offered because according to researchers, the Bengawan Solo watershed has a river flow that can be utilized to provide education and socialization of regulations whose legality is issued by the state. So if an object

in Indonesia has a good legal basis then the object will have more protection power from the state. Furthermore, water tourism will also contribute funds originating from the tickets produced, [12], these tickets will be managed to protect the watershed area from the environmental damage that is threatening at this time.

The data in this study are regional regulation number 4 of 2021 concerning spatial planning for the city of Surakarta, regional regulation number 1 of 2018 concerning spatial planning for Suoharjo district, regional regulation number 2 of 2020 concerning spatial planning for Wonogiri district, regional regulation number 1 of 2020 concerning Sragen regency spatial plan, regional regulation number 19 of 2019 concerning the Karanganyar regency spatial plan, regional regulation number 5 of 2021 regarding the Bojonegoro regency spatial plan and regional regulation number 17 of 2020 concerning the Tuban regency spatial plan. These data were selected based on considerations of their relevance to watershed management plans. In addition to regional regulations data, the data in this study are various regulations at the higher level, namely Law Number 32 of 2009 concerning Environmental Protection and Management, Law Number 41 1999 on forestry, Law Number 17 on water resources, government regulation number 37 of 2012 on water resources. These regulations were adopted on the grounds that they are a source of law from regional regulations.

To overcome various obstacles in document administration and data analysis, researchers used Atlas.ti software as a tool. Apart from assisting in the administration process and data analysis, Atlas.ti also makes it easy for researchers to represent research findings through visualization of the flow of thought and relationships between variables, [13], [14]. Thus, the research findings can be written more thoroughly and comprehensively.

Field observations made in this study aim to determine the potential and opportunities for developing water tourism in the 7 districts studied by the author. Field observations were carried out in the Bengawan Solo watershed or on the outskirts of the Bengawan Solo River.

3 Result and Discussion

3.1 Regulatory Analysis

The results of this study will be visualized using atlas.ti software. The software makes it easy for researchers to group the contents of the substance of the law which have the same goal, namely the

protection of the Bengawan Solo watershed and its area.

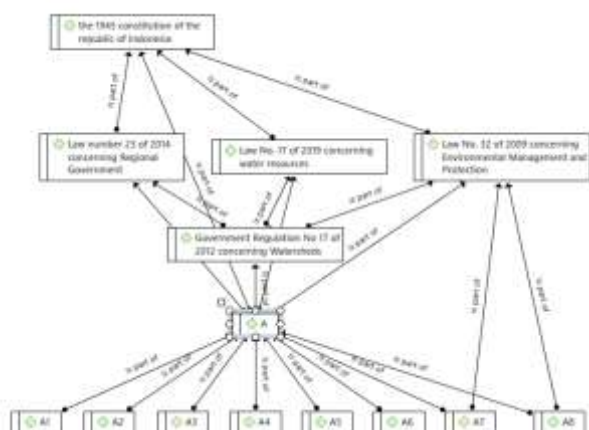


Fig. 1: Chart of the relationship between laws and regulations related to the Bengawan Solo watershed From ATLAS.ti

The chart above (Figure 1) is a chart in which there is a combination of laws and regulations with letters of the alphabet which are used as symbols or substantive groupings of all laws and regulations that are related to the protection of the Bengawan Solo watershed and the development of water tourism. The explanation is as follows.:

- A1: Understanding of the principle of protection and management of natural resources
- A2: Regional government authority, central government authority, regional supervision objectives, regional management objectives. Local government.
- A3: water network system, watershed network system, flood control system, pollution control
- A4: law, business license, criminal sanctions, administrative sanctions, and civil sanctions
- A5: definition of the right to sue, the government's right to sue, the people's right to sue, and the non-government organization's right to sue
- A6: Environmental quality standards, environmental carrying capacity, and environmental capacity.
- A7: River basin definition, spatial definition, river definition, and spatial planning definition
- A8: definition of government, central government, local government.

A: regional regulation number 2 of 2020 regarding spatial planning for Wonogiri regency, regional regulation number 1 of 2018 regarding spatial planning for Sukoharjo regency, regional regulation number 4 of 2021 concerning spatial planning for Surakarta city, regional regulation number 19 of

2019 regarding spatial planning for Karanganyar regency, regional regulation number 1 of 2020 regarding spatial planning for Sragen regency, regional regulation number 5 of 2021 regarding spatial planning for Bojonegoro regency, regional regulation number 17 of 2020 regarding spatial planning for tuban regency.

The chart above explains how the existing laws and regulations in Indonesia and those that have a relationship with the protection of the Bengawan Solo watershed. At the top is the 1945 Constitution of the Republic of Indonesia which is the source of all laws and regulations that were born in Indonesia. The function of the 1945 Constitution of the Republic of Indonesia is as a basis for running a government in the form of legislation, including the protection of the Bengawan Solo watershed. Then below is the 1945 Constitution of the Republic of Indonesia and below it is Law Number 23 of 2014 concerning Regional Government and Law Number 32 of 2009 concerning Protection, Environmental Management, and Law Number 17 concerning Water Resources. The three laws in substance have specific rules to protect and manage watersheds.

Under the three laws above are Government Regulations No 17 of 2012 Concerning Watersheds. These government regulations are regulations that are specifically made to assist the implementation of the tasks of the law above them. The government regulation contains rules and policies regarding watersheds in particular. This government regulation is also a reference for making regional regulations which are made to assist in the management of watersheds. Unfortunately, at the regional level, the researchers studied, there was no regional regulation specifically made for the Bengawan Watersheds. Then the researcher focused on regional regulations regarding spatial planning in each area studied by the author, namely regional regulations regarding spatial planning for Wonogiri Regency, regional regulations regarding spatial planning for Sukoharjo Regency, regional regulations regarding spatial planning for Surakarta City, regional regulations regarding spatial planning. Karanganyar Room, Regional Regulation concerning Sragen Regency Spatial Plan, Regional Regulation concerning Tuban Regency Spatial Plan, and Regional Regulation regarding Bojonegoro Regency Spatial Plan.

Based on the analysis obtained by the researcher from several articles contained in each law, government regulation, and regional regulation, the authors found several substances related to the Bengawan Solo watershed policy and substance regarding Bengawan Solo management plans in the

future. The substance is divided into the words: management, understanding, protection, sanctions, spatial planning, law enforcement, environmental carrying capacity, disaster-prone areas, environmental damage, conservation of water resources, business permits, and stages of watershed management. These words, when connected, mean that the Indonesian government has an effort in managing the Bengawan Solo watershed. Although in an empirical setting, there have been no specific rules made by the government for the Bengawan Solo watershed, both at the national level and at the regional level.

In the absence of special regulations for the Bengawan Solo watershed, it is feared that it will disrupt the sustainability of the Bengawan Solo watershed. In the view of Critical Legal Studies, the law should be created and intertwined and sensitive to developing social problems. The problem of the Bengawan Solo River Basin that occurs does require special handling. In previous research conducted in the Bengawan Solo watershed, researchers found problems regarding river water pollution in the Bengawan Solo watershed, this happened because there were no appropriate policies in the area of law enforcement at the regional level, [6]. In the thinking of critical legal studies, sometimes laws are only made for the holders of power, and those who make the rule of law obey the rulers, [15]. In the end, imperfect laws or laws that are not under the problems that occur are born, [16]. The imperfection of the law will affect its implementation. For example, the absence of a legal vacuum in the Bengawan Solo watershed will weaken law enforcement in that area. Another view is also conveyed by the originators of the theory of critical legal studies, which provides the assumption that law is always close to the authorities. The point is that the laws issued by the authorities tend to be only for the benefit of the ruling circle.

The preservation of the Bengawan Solo watershed is urgently needed because Indonesia itself has ratified the concept of sustainable development and Indonesia itself has implemented the concept of regional autonomy. These two concepts have a very big role in Indonesia, even though these concepts are not original concepts from Indonesia, the impact that is born is very large. Unfortunately, one of these concepts, namely the concept of regional autonomy, has weakened its authority in the watershed conservation sector. It is proven by the analysis of the author who has not found specific regulations for the Bengawan Solo watershed in every district or city that is passed.

3.2 Tourism Potential of the Bengawan Solo Watershed

Indonesia is a country that has beautiful nature and lots of biodiversity, [17], [18]. These two potentials have been utilized by Indonesia to increase the country's foreign exchange and regional income. After the Covid storm that attacked Indonesia and paralyzed Indonesian education, [19], [20], [21], and economy, [22], [23], [24], the Indonesian government continues to strive to grow the Indonesian people's economy, one of which is through the tourism route. Several regions in Indonesia have also started to increase in tourist visits, such as Bali, NTB, and Yogyakarta. The increase in tourism in several regions in Indonesia is a momentum for other regions to improve their tourism sector, including the area through which the Bengawan Solo River Basin passes, especially in the 7 regencies studied by the researchers.

The potential for tourism development in 7 regencies in the Bengawan Solo watershed is very good considering the policies that the central government continues to develop in an effort to promote regional potential through regional product development or regional natural potential. During observations in the Bengawan Solo watershed, researchers found several points that could be developed by the local government for the development of water tourism, for example, the arrangement of the river area in the Bengawan Solo watershed in Surakarta City. the arrangement of the Bengawan Solo watershed area was carried out by BBWS (Bengawan Solo River Basin Area) to make the appearance of the Bengawan Solo watershed area better and more attractive.

The utilization of tourism in certain areas has a positive value in the eyes of the community and provides a more natural and clean atmosphere. Water tourism has development opportunities in tropical regions such as Indonesia. Considering that Indonesia only has two seasons, namely the rainy season and summer. In addition, the use of water tourism also provides a position in environmental education. According to Trias Hernanda, an attitude of love for the environment can be created through education, [25]. The arrangement of watershed areas in Surakarta City is presented in Figure 2.



Fig. 2: Arrangement of watershed areas in Surakarta City

The picture above shows that the condition of the clean Bengawan Solo watershed area displays its dance charm for the community to visit and opens new jobs for people who will open food stalls in the tourist area. For example, Sukoharjo Regency has started to develop a tourism village on the edge of the Bengawan Solo watershed in the villages of Jangglengan and Bengawan Solo Music Jazz in Bojonegoro, these two examples prove that the tourism potential belongs to the Bengawan Solo watershed with good natural attractions. The development of water tourism in watershed areas has been developed in several other developed countries, such as Switzerland, [26], Germany, [27], and China, [28]. These countries develop watershed areas properly and correctly so that the benefits of watersheds have utility for the welfare of the surrounding community. Considering that the development of water tourism in watersheds is very diverse, such as tours along the river, culinary tours along the river, and educational tours on the river, [29]. On the other hand, the potential for the development of the Bengawan Solo watershed also has various challenges including from the perspective of each regional policy. Policies in the area are generally only policies that are general, such as regional regulations for tourism only and the Bengawan Solo watershed area which cannot be included in the regional spatial planning, because the concept of regional autonomy for watershed areas

The river authority is owned by the central and provincial governments. So there needs to be a policy study to develop ideas about the development of water tourism in the Bengawan Solo watershed area. The delegation of governmental authority from the center to the regions is one of the contents of the concept of regional autonomy. So actually the regional opportunities for the development of water tourism can also be implemented.

3.3 Policy Opportunities for the Development of Water Tourism in Watershed Areas

Indonesia has always emphasized its position as a law-abiding country, [30], [31]. This situation makes Indonesia always conduct studies and make rules for every policy that will be born. In addition, Indonesia also adheres to a hierarchical system in every regulation that is issued. The hierarchical system adheres to the Stufenbau theory coined by [32]. Where every law that is made may not conflict with the law above it. This legal basis also applies to legal arrangements for watershed areas. Where the source of watershed area regulations must come from the law above it. Unfortunately, not all watershed areas have their own special rules. Based on the search, researchers only found regulations made for the Citarum watershed. Other watersheds, do not yet exist or are still common.

Reflecting on the weak state of environmental law enforcement in Indonesia, the establishment of a regulatory basis must be implemented immediately, [33]. The regulatory basis is indeed important, especially with the concept of regional autonomy adopted by Indonesia, [34]. So the basis for implementation in carrying out law enforcement and protection of the Bengawan Solo watershed will be easy to implement. Based on the results of an analysis of regional laws and regulations that have a relationship with the Bengawan Solo watershed in point 3.1 above, the opportunity to create a legal basis for the protection of the Bengawan Solo and also for the use of water still exists or can still be implemented, this situation is based on a presidential regulation issued made for the Citarum river basin.

The benefits of having a specific legal basis can already be felt. For example, the legal basis for the Citarum River Basin has a legal basis. Acceleration of development and arrangement of the Citarum River Basin continues to be carried out and monitoring of pollution of the Citarum River Basin has been well institutionalized, although there are still cases of pollution that also spreads to the Citarum River Basin. So it is not impossible to create a legal basis for the Bengawan Solo watershed. This foundation can be used as a foothold for the development of water tourism in every area traversed by the Bengawan Solo watershed. Acceleration of the development of the Bengawan Solo watershed can also be implemented if it already has a legal basis for the watershed considering the situation experienced by the Bengawan Solo watershed and the Citarum watershed are the same. In addition, the opportunity to make policies for the development of the

Bengawan Solo watershed area can also be sourced from the concept of sustainable development which has been ratified by Indonesia, [35], even though the concept is not binding and only serves as the basis for achievement indicators, but with results that have been calculated through surveys, the urgency making special regulations for watershed areas can be implemented immediately based on the 2030 sustainable development concept, [5]. Based on research conducted by previous researchers, the handling of cases of pollution in the Bengawan Solo river basin area is very slow, and also each region blames one another, so it does not produce a good meeting point and tends to stop because no one has provided a good and correct solution. The future of watersheds is the future of humanity. Such as the future of the Bengawan Solo watershed which is very important because it is also a buffer for the future of the environment in the provinces of Central Java and East Java. Evidenced by the latest case experienced by the Bengawan Solo watershed, namely water pollution by alcohol waste in the river the Bengawan Solo watershed which made the regional drinking water company in the Solo city area stop taking water from the river in the Bengawan Solo watershed. Caring for the watershed by creating a legal basis is key to saving and developing an environment based on the original character of the Bengawan Solo watershed in the future, as has been implemented in the Citarum River basin.

4 Conclusion

The importance of caring for the Bengawan Solo watershed can already be seen from the various cases that have hit the Bengawan Solo watershed, based on the discussion above there are three conclusions that can be explained *first*, several rules are related to the flow of the Bengawan river, but in the opinion of the author that these rules are still general and not specific, so what happens is that there is no follow-up at the regional level. *Second*, the opportunity for the utilization of the Bengawan Solo watershed for the water tourism area is still open, but it must be preceded by the establishment of regulations as a legal basis. The potential possessed by the Bengawan Solo watershed is very large in terms of developing opportunities for water tourism. *Third*, there is still an opportunity to make policies for the Bengawan Solo watershed for the development of water tourism, following the example of the legal basis for the Citarum watershed which has a presidential regulation, although not yet in the form of a law or regional regulation, but the

position of the regulation can already be used as a policy basis. for the protection and management of watersheds, including in the framework of utilizing watersheds for water tourist

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Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)

- Absori: His contribution of research was found original idea of research; Designed experiment; Analyzed and interpreted the data; Contributed reagents, material, analysis tools or data; Wrote the paper

- Trias Hernanda: His contribution of research Designed the research; Selected data research, Contributed reagents, material, analysis tools or data Analyzed; interpreted the data; Wrote the paper.

- Kelik Wardiono: His contribution of research was Performed the research; Selected data research, Contributed reagents, material, analysis tools or data Analyzed; interpreted the data; Wrote the paper.

- Aidul Fitriadi: His contribution of research was Performed the research, Contributed reagents, material, Validate data; analysis tools, or data Analyzed; interpreted the data; Wrote the paper.

- Arief Budiono: His contribution of research was Contributed reagents, material, Validate data; analysis tools or data Analyzed; interpreted the data; Finishing publication revisions, Finalization paper, Wrote the paper

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Conflict of Interest

The authors have no conflict of interest to declare.

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