ABSTRACT

Water resources management is a socio-political issue where various interests influence the policy on the protection and utilization of water resources. This research wants to know the government's policies and efforts in protecting water resources amid the rapid industrialization of tourism, along with conflicts due to the use of water resources from a political ecology perspective. This study uses descriptive qualitative research, data collection methods through depth interviews, observation, and documentation. This study shows that the efforts of the Batu City Government in realizing the protection of water resources are not proportional to the acceleration of the conversion of forest and agricultural land functions to support the sustainability of water resources due to the rapid growth of the tourism industry. It can be seen from the inconsistency of policy products, the imbalance in the amount of the budget between the commercialization of land (tourism), and the lack of efforts to conserve springs. As a result, there was resistance from the community in the struggle for access to water resources. Therefore, it is necessary to affirm the boundaries of the utilization of water resources supporting areas, transparency of the sustainability of water resources, and disclosure of information to the public regarding the process of tourism development plans undertaken by investors to facilitate supervision by the public.

Keywords: batu city; political ecology; protection of water resources

ABSTRAK

Pengelolaan sumber daya air merupakan persoalan sosial politik dimana kebijakan perlindungan dan pemanfaatan sumber daya air di pengaruhi oleh berbagai kepentingan. Tujuan penelitian ini ingin melihat kebijakan serta upaya Pemerintah Kota Batu dalam perlindungan sumberdaya air di tengah-tengah pesatnya industrialisasi pariwisata, serta konflik akibat pemanfaatan sumber daya air dari perspektif ekologi politik. Penelitian ini menggunakan penelitian kualitatif deskriptif, metode pengumpulan data melalui depth interview, obeservasi dan dokumentasi. Penelitian ini menunjukan upaya Pemerintah Kota Batu dalam mewujudkan perlindungan sumber daya air tidak sebanding dengan percepatan alih fungsi lahan hutan dan pertanian sebagai penopang keberlangsungan sumber daya air akibat pesatnya pertumbuhan industri pariwisata. Terlihat dari inkonsistensi produk kebijakan, ketidakseimbangan besaran anggaran antara Komersialisasi lahan (pariwisata) dan minimnya upaya konservasi sumber mata air. Akihatnya terjadi perlawanan
dari masyarakat dalam perbuatan akses sumberdaya air. Oleh karena itu perlu penegasan batas-batas pemanfaatan kawasan penopang keberlangsungan sumber daya air, transparansi terhadap keberlangsungan sumber daya air dan keterbukaan informasi bagi publik terhadap proses rencana pengembangan pariwisata yang di lakukan investor sehingga mempermudah pengawasan oleh publik.

*Kata Kunci:* ekologi politik; kota batu; perlindungan sumber daya air

**INTRODUCTION**

Political ecology wants to explain the impact of environmental issues on the policy process and the role of the state in environmental management. Often in the management of water resources, building permits from the government lead to conflicts, one of which is conflicts over the use of water resources. Water conflicts can be understood as a struggle to get accessibility to water use. Simon and Dorothea explained that water conflict is a struggle between two or more actors to access, control, management and use of water resources (Mason & Blank, 2013). River water is one type of surface water that often triggers conflicts. Handayani’s research, for example, in the District of Maos, Cilacap Regency, noted that differences in the distribution of water records for rice fields and ponds resulted in conflicts between farmers and fish farmers (Handayani, Dwityaningsih, & Triwuri, 2018). Listiawati also captures the same phenomenon, competition over the use of water in fisheries triggers conflicts between fish farmers and food farmers who feel that irrigated rice fields are threatened (Listyawati, 2011).

The example confirms that water conflicts often involve the rights to use and use water resources, reduced distribution of water resources, and threats to livelihood sustainability related to water resources. For agrarian communities, water is a strategic agrarian driving force, especially rice fields that depend heavily on water. The UN-Water report states that 70% of the world's water use is for agricultural needs (UN-Water). In Indonesia, based on the 2000 FAO report, the use of water for agricultural consumption reached 82%.

Politics of massive tourism development spur the development of infrastructure and public facilities by utilizing natural resources. As a result, land-use change and large amounts of water use threaten the sustainability of water resources. Malang Corruption Watch (MCW) notes that based on the East Java Regional Environmental Status (SLHID) report, in 2015, the water quality in Batu was deficient, at 51.67. Whereas in 2011, the number of springs was 57, down from 2009 with 109 springs. This data is strengthened by WALHI Nasional, compiled from the Mata Air Care Community Forum (FMPMA), which notes that more than 65% of the springs in Batu City are on severe and dangerous land. In the FMPMA record, the percentage of severe locations was 57 spots (53%), dangerous 15 spots (14%), both four spots (4%), and in normal conditions 32 spots (29%).

The spring water crisis is a severe problem for agrarian communities because it has an impact on the sustainability of the ecosystem. The distribution or availability of water for agriculture cannot be ignored because it can lead to conflict. At the local level, water conflicts can arise between different economic sectors, such as agriculture and industry.
There are several conflicts over water resources management in Batu City (Hasan, 2018). First, disputes between the people of Bulukerto Village, Bumiaji Subdistrict, Batu City who oppose the construction of the "The Rayja" hotel and resort (Java, 2016) and (Widianto, 2018). Second, the conflict between the residents of Junrejo Village and the management of Dino Park related to water source management that was triggered by efforts to change the function of the function irrigation river into the tourist attractions (Sabdianto, 2018) and (Ida, 2018).

Conflicts over water resources management in Bulukerto Village is seen as a model of resistance and community empowerment in facing threats to the sustainability of spring water resources (Susilo, 2017) and (Lestari, 2019). While this research, citing Satria's (2010) statement, wants to see resources, including water, as socio-political issues that are a political ecology issue, so this research is more focused on the political explanation of environmental degradation (Satria, 2010). That is, the crisis of water resources management that occurred in Batu City did not happen naturally, but was influenced by various interests in environmental management policies.

Moreover, the escalation of land conversion due to tourism development in Batu City can rapidly increase the amount of water use, both for agriculture, households, and the tourism industry. The many actors who have an interest in using water economically can trigger water use conflicts. Investors who have obtained permits in various forms of tourism policies pose a threat to community water resources and agricultural irrigation. Based on this condition, this study tries to explain how the political ecology of the protection of springs in Batu City.

METHOD

This type of research is qualitative with a descriptive approach to produce descriptive data in the form of written or oral words from people and observable behavior (Moleong, 2013). This study would like to describe the policy of the protection of springs in Batu city, amid rapid tourism development. The type of data used is primary data obtained from observations at the research location and the results of interviews with informants. At the same time, secondary data is collected by searching the archives and documents about the water protection policy in Batu. Thus there are three sources of data in this study, namely informants, events, and documents. Informants were selected using a purposive sample technique with predetermined criteria. This research also used the snowball sampling technique because field research will bring up more informants than has been determined. The informants in this study were Mr. Trisno as Secretary of the Junrejo Village, Mrs. Ratna Head of Development Planning Sie in the Batu City Environment Agency, Mr. Andi Faisal as the Head of Junrejo Village, Mr. Arifin as Head of Rejoso Hamlet and Mr. Basuki as the head of the Kaliwatu team.

Data collection techniques used were participatory observation, depth interviews, and documentation of several relevant research sources. Data analysis uses interaction models, and basically, the data has been analyzed since the data collection process. This interaction method according to Miles and Huberman includes data
reduction, data display and Conclusion drawing. Because the analysis model used is the interactive model, then researchers may carry out the repetition in data mining (Sugiyono, 2014). In the sense that if the information obtained is not yet saturated, the researchers will be collecting data back in, and then analyzed according to the analysis stage further. Researchers use the triangulation method to test the validity of the data, such as source triangulation and triangulation data.

RESULTS AND DISCUSSIONS

1. The tourism industry and the Crisis of Water Resources in Batu

The strengthening of the role of local government in the era of decentralization brought a new dynamic of how governance structures and actors in the regions manage natural resources, including water. This issue cannot be separated from the political and economic context in which the problem arises, as stated by Satria (2010), that the politics of environmental management is not neutral. The tourism development policy in Batu City provides economic benefits for tourism actors or investors, opens up new jobs for the community, and increases local revenue (PAD).

But for environmental activists, tourism industrialization is a form of environmental politicization that will hurt the urban spatial use and management. Industrial development and its supporting facilities and increasing population due to urbanization can lead to environmental exploitation in Batu City, which threatens the condition of water resources. Even though Batu City is an upstream part of the Brantas River Basin, it has hundreds of strategic water sources, not only for meeting Kota Batu's clean water needs but also for Malang City and Malang Regency.

The attitude of the local government in supporting the exploitation of natural resources is reflected in the history of tourism development in the city of Batu. After officially becoming the City Government on 17 October 2001, Batu City began to organize and develop. The government started implementing specific policies to develop and advance the tourism industry. It is stated in the Batu City vision under the leadership of the first Mayor, H. Imam Kabul, namely, Batu agropolitan nuanced tourism with civil society ".

The vision relay to make Batu City as a tourism city continued with the leadership of Eddy Rumpoko as Mayor of Batu 2007-2012. The vision is Batu City as a tourism center supported by human resources (human resources), natural resources (natural resources), and SDB (cultural resources) as well as the creative, innovative and clean government for all people, imbued with faith and devotion to God. The vision as a tourism city was reinforced in the second period of Edy Rumpoko's leadership. The vision emphasizes Batu City to become a center of organic tourism based on international tourism, which is then enshrined in Batu City Regional Regulation No. 7 of 2011 concerning Batu City Spatial and Regional Planning (RTRW) for 2010-2013. The Vision of Batu City Spatial Planning is to make Batu City a Tourism and Agropolitan City in East Java.

The Mayor's Vision of Batu tends to lead to the development and improvement of a tourism-based economy. In the period of the next Mayor, Dewanty Rumpoko, the vision did not change, reflected in the vision
of the mayor, namely, 'the city empowered villages succeeded in realizing Batu City as an international center of agro-tourism that has character and competitiveness towards the realization of civil society.'

Even this effort was emphasized by the issuance of Batu City Regional Regulation No. 1 of 2013 concerning the Implementation of Tourism. In its development, various regulations provide an opportunity for the private sector to commercialize urban / land space. One of them is the commercialization of land for the construction of artificial tourism, as well as tourism support facilities in Batu City.

Batu City reinforces branding as a Tourism City by making artificial tourism a leading tourism destination. In the Master Plan for Tourism Development in Batu City in 2014-2029, Selecta, Jatim Park I, Secret Zoo, and Batu Night Spectacular are artificial tourism objects that are designated as superior tourism.

The growth of artificial tourism is increasing. One by one, the artificial attractions appear, such as the Wonderland Stone, Batu City Square, Punten Fish Seed Hall, Animal Museum, Eco Green Park, Angkut Museum, Predator Fun Park, and the latest is Dino Park. The increase in the number of artificial tourism is directly proportional to the rise in the number of tourist visits by 4,188,910 in 2017 (BPS) to 6.52 Million tourists in 2018, the amount exceeds the tourist target of only 5.26 million people (Lakip of Batu City Tourism Office). The increase in the number of tourists will simultaneously affect the development of infrastructure and supporting tourism facilities, such as the construction of hotels and restaurants.

### Table 1. Developments Hotel in Batu

| No. | Number of Hotels and Rooms | Year |
|-----|----------------------------|------|
|     |                            | 2016 | 2017 |
| 1   | number of Hotels           | 550  | 953  |
| 2   | Number of rooms            | 6,066| 8,535|

Source: compiled from BPS

In 2016 there were 550 hotels and in 2017 increased to 967 hotels. Increasing the number of hotels also affect the number of rooms. In 2016 there were 6,066 rooms and 8,535 rooms in 2017. It shows that in one year, the number of hotels increased by 57.71% and hotel rooms 71.07%. The high number of hotel developments makes Batu City as the second level area has many starred hotels after Surabaya and Malang. The high investment in building hotels and resorts shows the increasing industrialization of tourism in Batu City. Based on the tourism business registration document in 2018 Batu City, a total of 51 companies from various sectors listed in Tourism Business Registration Certificate (TDUP) as investors supporting tourism with the number of overall capital Rp 1,099,789,414.238. Artificial travel increasing trend, an increase in the number of tourists, and improvement of tourism infrastructure in Batu, along with the many tourism developments and facilities provided by the government at least advantageous in improving the government side of the budget and investors in the sector of capital accumulation.
In contrast to the economic benefits obtained from these investments, the other side of this condition is a threat to the sustainability of agricultural land. Space commercialization through investments in Batu caused the conversion of agricultural land into non-agricultural. For example, a tourist area Predator Fun Park built on an area of 2.7 hectares of agricultural land, Batu Night Square area of 4.5 hectares, and the business district as Batu Town Square area of 10,000 m2. Department of Agriculture report confirms that Batu City area of agricultural land in 2018 was decreased, i.e., an area of 5753.592 hectares of an area of 5767.57 ha in 2017 (LAKIP Disperta Batu, 2018).

In the perspective of political ecology, the occurrence of the above land conversion due to the impartiality of the government's policy of land protection efforts. It is reflected in Regional Regulation No. 14 of 2012 concerning the Protection of Sustainable Food Agriculture Land of Batu City (PLP2). Based on existing data, agricultural land owned by the City of Batu of 2,888.82 hectares, but land allocated in the RTRW of 1,252.00 hectares, it denotes there are 1636.82 hectares of land that is not protected by the government Batu (Difirsta, 2017).

This situation shows that the agricultural land in Batu is shrinking, while the acceleration of changes in the function of agricultural land into smaller plots increased. The massive increase of the tourism industry in Batu City not only threatens agricultural land but also allegedly contributed to the reduction of springs in Kota Batu. Sixty spring water owned by Batu City, East Java, was disturbed. It was allegedly induced investors to invest in the hospitality sector and villas as well as other attractions that have increased in the tourist town (Kompas).

Data collected from the National WALHI Spring Water Concern Community Forum (FMPMA) shows that more than 65% of springs that exist in Batu located on lands with severe conditions. In a note FMPMA, the severe location of the spring percentage was 57 (53%) point, the very crucial 15 (14%), both 4 (4%) and under normal conditions of 32 (29%) (Apriando). This condition is different from the results of research conducted by Artha, Rahadi, and Suharto (2014), which states that the number of water reserves in Batu had a surplus.

2. Conflict Protection Spring Water in Batu

Efforts to remove springs in Batu city have been stated in Batu Kota Regional Regulation No. 7 of 2011 concerning Spatial Planning and Batu City Area (RTRW) for 2010-20130. The Batu city spatial plan describes the springs network in Batu including (a) Darmi springs for the Oro-oro Ombo, Ngaglik, and Temas Village; (b) Banyuning springs for Beji, Ngaglik, Sisir, and Emas Village; (c) Gemulo springs for Sidomulyo, Pandanrejo, and Torongrejo Village also part of Beji Village and Mojorejo Village; (d) Torong Belok springs for Songgokerto and Pesanggrahan Villages; (e) Cemoro Kandang springs for Bukit Panderman; (f) Spring of Ngesong I and II for Sumberejo Village, Santrean Hamlet, and Panglima Sudirman Street; and (g) Kasinan springs for Pesanggrahan Village.

The regulation illustrates that the State (Batu City Government) has an interest in managing natural resources (water). As an agricultural area, water resources are an important component in the process of agricultural production in Batu. Batu City Regional Regulation Number 16 of 2011 concerning Protection,
Preservation, and Management of the Environment is the government's effort to protect and manage the environment to realize sustainable development that is environmentally friendly, including the sustainability of the availability of springs.

The protection of springs faces a complex problem, which is unpredictable climate change and the loss of forests as water catchment areas. Information on forest conversion in Batu city is not explicitly known because the data on forest area from the Central Statistics Agency (BPS) of Batu City with the Central Statistics Agency (BPS) of East Java Province is different. In 2016 BPS Kota Batu recorded 2,970 Ha of protected forest and 4,641 Ha of conservation forest while BPS East Java data in 2016, 2017, and 2018 recorded 3,340 Ha of protected forest and 5,013 Ha of conservation forest. When referring to the two sources, there are differences in the forest area in Batu City; however, if there are periodic BPS data from East Java Province, there is no shrinkage of forest area. In contrast to the BPS data, research by Syihabuddin and Gunawan (2014) shows that there is a change of function of the forest in Batu. From 2000 to 2010, the conversion of forests in the form of 1,793.22 hectares (36.56%) of dryland forests to plantations, 449.44 hectares (9.16%) converted into agricultural land and the conversion of forests into settlements as large as 309.68 hectares (6.32%).

Efforts to protect the preservation of spring water sources are also caused by a dilemma between the political will of the government to ensure safety and environmental sustainability on the one hand and economic development through the tourism sector on the other. This condition is exacerbated by the low effort to optimize the Batu City government in carrying out conservation and protection of water sources. It is reflected in the accountability report of the Batu City environmental agency. In 2018 the realization of the Conservation of Water Resources and the control of damage to water sources carried out by DLH Kota Batu has only been realized 81.9% while the increase in the conservation of water catchments and new water sources has only been realized 57.41%. Law enforcement efforts for environmental violations by industrial activities are also weak. Batu City Environmental Agency (DLH) only provides administrative sanctions (Interview with Ratna: 2019) if the tourism industry violates the environment, so the environmental monitoring function is only a formality.

The depiction of the decline in the availability and potential of water resources reported by Malang Corruption Watch (MCW) indicates that the city of Batu is experiencing a crisis in the sustainability of water resources. It was confirmed by a report from the Batu City Agriculture Office (2018), that changes in land use resulted in fewer sources of groundwater that could be used for agriculture or consumption.

The water crisis occurs due to weather changes, environmental damage, and unsustainable development practices. The water crisis due to environmental damage that occurred in Batu City was caused by changes in spatial use through tourism development projects and supporting tourism infrastructure. Quoting the statement of Mason and Dorothea, this condition can trigger conflicts, namely as a struggle to gain access, control, management, and use of water resources (Mason & Blank, 2013). This conflict concerns the depletion of water resources that threatens their livelihoods (Mason & Blank, 2013).
In the last few years, the water crisis in Batu city has triggered water management conflicts. Local conflicts arise due to competition between groups of water users who have the same needs and users with different needs (Mason & Blank, 2013). Water conflicts also occur in various economic sectors. In Batu city, water is contested by the conservation group versus the business group for increasing economic development.

Conflicts that occur include the people of Bulukerto Village, Bumiaji District, Batu City who oppose the construction of "The Rayja" hotels and resorts, which are considered to threaten the sustainability of the spring. Next, the conflict between the people of Junrejo Village and the management of Dino Park related to the transfer of the function of the irrigation river into the tourist attractions. The developer fenced off by constructing a 6-meter wall above the irrigation river body so that people had difficulty accessing irrigation water.

Conflict over water resources management between the people of Bulukerto and Junrejo Village with investors can be seen as an injustice of access caused by government policy. From a political ecology point of view, natural resource management decisions cannot be understood from a technical-administrative point of view. Planning for environmental management is not perceived as caring for the environment, but a matter of control overpower. The Rayja Hotel Building Permit (IMB) issued by the Batudinilai City Investment and Integrated Services Office (KPPT) violates the rules. The hotel building, which is 150 meters away from the spring, is included in the protected area and also considered to violate Government Regulation No. 26/2008 concerning National Spatial Planning, and Government Regulation No. 38/2011 concerning Rivers. Furthermore, Batu City Regional Regulation No. 7/2011 concerning the Batu City Regional Spatial Plan for 2010-2030 states that the spring area is a local protection area and must be protected within the radius of the spring's border within 200 (two hundred) meters.

In 2018 a water conflict between the people of Junrejo Village and the Dino Park was raised due to the issue of breach of agreement (point 8), which reads "river and irrigation river continue to function as before and outside the Dino Park fence." However, the reality is that irrigation canals for residents are limited by walls, making it difficult for residents to process rice fields, water discharge is also apparently reduced (interview with Basuki, Faisal and Arifin: 2019). Whereas the need for irrigation water in Batu City reaches 50.90% of total water use and the Junrejo sub-district requires 14.46% of water for irrigation from the entire water needs in Batu City (Artha, Rahadi, & Suharto, 2014).

Based on the Government Regulation of the Republic of Indonesia Number 20 of 2006 concerning Irrigation explains that the function of the irrigation river is a river intended for agriculture, not industry. The diversion of waterways for the tourism industry not only threatens the citizens' agriculture but also threatens the survival of the residents of Batu City who depend their lives on the agricultural sector.

Kota Batu began to improve irrigation infrastructure facilities in 2018. The Agriculture Office provided infrastructure by building a Tertiary Farming Irrigation Network (JITUT) and the Village Irrigation Network (JIDES) that passes through the areas of food crops, horticulture, plantations, livestock, and fisheries. The aim is to improve the function of irrigation, expansion of planting areas, cropping index, and productivity. The
Regional Budget II funded the construction of JITUT in Junrejo Village, covering an area of 130 m², but this effort is not comparable to the acceleration of land-use change. The City of Batu took over the function of 42.13 hectares of land (Nrl, 2019) in 2016-2018, the impact not only on the availability of land but also on the availability of water resources.

The expansion of artificial tourism and supporting infrastructure exploiting water resources makes the meaning of water reduced. People who interpret water from the ecological, social, cultural, and religious aspects have turned into commercial purposes. This condition has moved various social organizations and non-governmental organizations to aggressively fight the water resources crisis and the injustice in the use of water resources in Batu City.

In the village of Bulukerto, the community is incorporated in the Spring Water Care Community Forum (FMPMA) and Nawakalam Gemulo. This forum was established as a Gemulo spring conservation organization that was threatened by hotel construction. This movement was then strengthened by the collaboration of the leaders of three villages, namely Bulukerto, Sidomulyo, and Bumiaji Villages, along with NGOs such as the Yayasan Pusaka, Brantas Conservation, Malang Corruption Watch (MCW) and WALHI (Susilo, 2017). Several attempts were made to protect the Sumber Gemulo springs, including conducting spring conservation, strengthening cultural awareness and environmental issues, and empowering youth potential (Susilo, 2017).

As for Junrejo Village, people who are members of the Kaliwatu Community Forum are trying to advocate for losses due to the construction of Dino Park. This forum does not only focus on the issue of residents' irrigation channels that are bounded by walls making it difficult for people to process rice fields but also has not fulfilled the promise of labor quotas from the residents of Desa Junrejo and Beji (Interview with Sutrisno: 2019).

**CONCLUSION**

The acceleration of sectoral economic growth by the Batu City Government through the development of the tourism industry seems political. It has an impact on the sustainability of water resources in Batu City. The massive growth of tourism and supporting infrastructure is destroying water catchment areas and reducing water sources.

Degradation of spring water sources in Batu City is not only interpreted as a result of climate change and occurs naturally, but is caused by government policies that do not favor environmental preservation efforts. This condition triggers conflicts between the communities as affected by the government as regulators and the private sector as investors who are considered to threaten ecological sustainability in Batu City.

The Kaliwatu River management conflict involves several actors, ranging from community groups, village governments, local governments, and investors. Politics of development and local government alignments to investors by providing access to tourism development and development causes marginalized communities to access and utilize water resources.
The results of this study suggest two things, first, information disclosure in the tourism industry development plan in Batu City to minimize space/land use. Second, tightening and clarifying the zoning boundaries of the region to maintain the sustainability of the water resources ecosystem in Kota Batu.

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