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Remaking of the New State In Water Management

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ABSTRACT

This study illustrates the dominance of the state through subdistrict governments and the private sector in managing water as a shared resource in the Special Region of Yogyakarta. The state's dominance in managing water resources, as a collectively owned resource, results in limited community access to water as a resource that should be enjoyed together. The need for waterfalls in DIY is very large every year, especially when entering the dry season. Girikerto's location at the foot of Mount Merapi means that the area has abundant water resources. However, the local community actually has limited access to water due to the cooperation between the district government and the private sector in dropping water into Gunungkidul Regency. The aim of this research is to illustrate how the state, through sub-district governments, can still provide local communities with access to utilize the water resources they need to meet their daily living needs. The results of this research show that the state, through the village government, has provided access to local communities to enjoy water.

Keywords: Government Making, Shared Resources, Water.

ABSTRAK

Kajian ini menggambarkan dominasi negara melalui pemerintah kecamatan dan swasta dalam pengelolaan air sebagai sumber daya bersama di Daerah Istimewa Yogyakarta. Dominasi negara dalam mengelola sumber daya air sebagai sumber daya yang dimiliki secara kolektif mengakibatkan terbatasnya akses masyarakat terhadap air sebagai sumber daya yang seharusnya dinikmati bersama. Kebutuhan air terjun di DIY sangat besar setiap tahunnya, apalagi memasuki musim kemarau. Letak Girikerto yang berada di kaki Gunung Merapi membuat kawasan tersebut memiliki sumber air yang melimpah. Namun, akses masyarakat terhadap air justru terbatas karena adanya kerja sama antara pemerintah kabupaten dan swasta dalam mengalirkan air ke Kabupaten Gunungkidul. Tujuan dari penelitian ini adalah untuk menggambarkan bagaimana negara melalui pemerintah kecamatan tetap dapat memberikan akses kepada masyarakat lokal untuk memanfaatkan sumber daya air yang mereka perlukan untuk memenuhi kebutuhan hidup sehari-hari. Hasil penelitian ini menunjukkan bahwa negara melalui pemerintah desa telah memberikan akses kepada masyarakat lokal untuk menikmati air.

Kata kunci: Pembuatan Pemerintahan, Sumber Daya Bersama, Air.

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INTRODUCTION

After the enactment of Village Law Number 6 of 2014 concerning Villages, the existence of villages experienced a substantial change. Villages whose authority was previously not recognized, after the enactment of Law Number 6 of 2014 concerning Villages, village authority became increasingly clear, namely in the arena of recognition and subsidiarity authority. The village as a legal community unit is recognized for its existence. Village authority is not given by the central government like regional governments. This can be seen from the General Explanation of Law Number 6 of 2014 concerning Villages, namely that Villages are Villages and Traditional Villages or referred to by other names, hereinafter referred to as Villages, are legal community units that have territorial boundaries that have the authority to regulate and manage government affairs, local community interests based on community initiatives, origin rights and/or traditional rights recognized and respected in the government system of the Unitary State of the Republic of Indonesia. Recognition and respect for these villages is necessary because villages existed with their diversity before and after the formation of the Unitary State of the Republic of Indonesia.

Village Development aims to improve the welfare of Village communities and the quality of human life as well as overcoming poverty through fulfilling basic needs, developing Village facilities and infrastructure, developing local economic potential, and sustainable use of natural resources and the environment. The government needs to design a clear and comprehensive policy on water management. Of course, the policy should cover aspects such as water allocation, environmental protection, regulation of water use, and conservation efforts. The government needs to carry out good planning regarding water resources, including estimating water availability, identifying potential conflicts, and determining long-term management strategies. This involves a deep understanding of the needs of water users, and the impacts of climate change. Creating and enforcing regulations related to water use is a key step. This includes the creation of regulations, water use permits, and monitoring systems to ensure compliance with those regulations.

It is important for the government to invest in infrastructure that supports efficient water management, including the construction and maintenance of dams, irrigation canals, wastewater treatment plants, and flood management. Involving the community and stakeholders in the decision-making process is very important. This can be done through public consultations, participatory meetings, and the formation of joint working groups to reach widely acceptable solutions. The government needs to educate the public about the importance of sustainable water management. Public awareness about water saving,

conservation and the impact of unsustainable water use can help reduce pressure on water resources.

Natural resources are limited in quantity and are used by everyone, each individual has the rationality to use them intensively. As a result, the abundance of natural resources decreases and all parties suffer losses. When CPR is not owned by anyone, or ownership of CPR is shared *in fact* does not work; hence CPR is an open access resource (*open access resource*). The research focuses on discussing government making through water resource management in the Girikerto sub-district, where in this case Girikerto has a BUMkal called Gate Merapi with one of the business units being the Water Tank Filling Station. As reported by several media, one of the stakeholders from the Bumkal stated that the increasing demand for SPTA means they hope to increase the water capacity from 40-50 tanks to 60-70 tanks per day. This research uses the CPR Theory to look at access to water resource utilization. CPR often faces the problem of overutilization (*overuse*) like *overfishing*, *overcutting*, pollution, because resources continue to be exploited. In this case, what has become a long discussion is regarding the excessive use of water as much as 8000 liters of water per tank, during a day 60-70 water tanks are taken for dropping water. This is a big question whether the same access can be obtained by the local community in the Girikerto sub-district.

THEORETICAL FRAMEWORK

Tragedy of the Commons

It is explained in (Atiandina, 2020) that *Tragedy of the Commons* is a theory proposed by biologist Garrett Hardin in 1968. This theory describes a dilemma in which shared resources *(the commons)* overused, and due to lack of effective management, these resources tend to be damaged or depleted. Basically, this theory presents a conflict between individual interests and collective interests in managing natural resources. An example often given is the shared pastures used by ranchers. Each rancher may have an incentive to increase his herd size for personal gain, but if all ranchers behaved this way, pastures could be overused and become barren, harming all ranchers in the long run. Hardin argues that in this situation, without regulation or good management, each individual will tend to act selfishly for his personal interests, and ultimately, the entire community will suffer losses due to damage or exhaustion of shared resources. In "The tragedy of the commons", Hardin describes that without the presence of institutions that can force the regulation of CPRs, destruction is the final result. Problem solving is then translated in two ways: (1) resources are transferred to

private ownership or privatization, or (2) management is handed over entirely to the government.

Common Pool Resources

Before talking about the Common Pool Resources (CPR) theory, there are several aspects that need to be explained first regarding ownership rights. There are 4 types of ownership rights according to Feeny et al,: 1990; Lynch & Harwell:2002, ie

1. Open access: There are no control/ownership rights over resources. Free & open resources accessed by anyone. There are no regulations governing it. Ownership rights (*property right*) is not clearly defined.
2. *Private property*: Resources do not belong to the state but are owned by organizations or individuals. There are regulations that regulate the rights of owners in utilizing natural resources. Benefits and costs are borne by the owner himself. Ownership rights can be transferred.
3. Belonging to a community group (*common property*): Resources are controlled by a group of people whose members have an interest in sustainable use. Outside parties who are not members may not take advantage. Ownership rights are not exclusive, they can be transferred as long as they comply with mutually agreed rules. Utilization rules are binding on group members.
4. State owned (*state property*): The right to use natural resources is exclusively owned by the government. The government decides on access, level and nature of exploitation of natural resources.

Common Pool Resources (CPR) are natural resources that can be utilized jointly by various individuals or groups. Some examples of CPR include forests, grasslands, common fisheries, and shared water systems (Ovando et al., 2013). These resources have two main characteristics, namely: (1) difficulty in excluding other users from their use (exclusion problems), and (2) difficulty in equally distributing resources or profits from them (subtractability problems). The concept of CPR is often associated with the idea of the "Tragedy of the Commons," namely that without effective management, common resources can be over-exploited by individuals or groups for personal gain, resulting in destruction or depletion of those resources. Effective management of CPR involves establishing rules, regulations, or governance that can ensure sustainable and fair use of these resources. Collaborative and participatory approaches are often used to ensure the sustainability of resources without compromising the interests of individuals or groups who rely on those resources.

Natural resources which are grouped based on their use and utilization are divided into common pool resources (CPRs)/common goods and public goods, public goods are often used for goods that are not limited and do not compete, such as it is impossible to prevent people from breathing. Examples of public goods in relation to natural resources like; clean air, clean environment and others. Meanwhile, the use of CPRs/common goods is competitive in relation to the benefits and access to these natural resources. The term common-pool resources was introduced more specifically that natural resources have two characteristics. *First*, has the nature of rivalry in its utilization, meaning that every person's consumption or harvest of a resource will reduce the ability or share of other people in utilizing that resource, such as; coal, petroleum and others. *Second*"There are costs that must be incurred to limit access to resources for other parties".

In the book *Governing the commons: the evolution of institutions for collective action*, Ostrom emphasizes two main points. First, the importance of institutional diversity in resource management, not just focusing on markets or countries. Second, the need for an understanding of the conditions (factors) that influence the integrity of resource management, which he views as one of the main tasks of social science. In principle, sustainable resource management requires: (1) rules that are appropriate to resource conditions, (2) clarity of territorial and user boundaries (resource rights), (3) accountability of the monitoring system; (4) there are gradual sanctions; (5) low-cost conflict resolution is available; (6) involvement of related parties so that an agreement is reached between the individuals involved; and (7) the presence of a supportive leadership system. Decentralized management is believed to make a positive contribution to resource sustainability.

Resource politics as Government Making

Resource Politics refers to the complex and dynamic interactions between political, social, and economic forces involved in the utilization, distribution, and control of natural resources. This concept covers all aspects of how natural resources are discovered, accessed, utilized and managed by individuals, groups or countries. Resource Politics often includes debates and conflicts regarding ownership, access, and management of certain resources. In this context, conflicts can arise between community groups, governments, companies, or even between countries regarding rights and responsibilities towards natural resources such as water, land, forests, energy and minerals.

Some frequently occurring issues in Resource Politics involve the distribution of wealth, human rights, inequality, environmental impact, and sustainability. Decision making regarding these resources can be a source of conflict or cooperation, depending on how the

parties involved resolve differences of opinion and seek fair and sustainable solutions. For example, in the context of Resource Politics, there are issues such as debates about land ownership, mining permits, forest management, and water conflicts which show the complexity and challenges in using natural resources sustainably and fairly.

Talking about water resources, water resources actually have the characteristics of being a shared resource (*common pool resources*) also has its own challenges. The existence of common pool resources which are "open to all" leaves consequences, namely freedom for users to access shared resources so that users cannot prohibit other users but competition arises between these users (Blomquist and Ostrom and Randal in Wade, 1987). Next, if you look at conceptualization *government making* can refer to the stages of government formation in every condition of society, namely:

1. Equal Society (*societies and equality*) In very primitive societies, such as hunting societies there is a permanent need for leaders. Food production, education, offspring, division of labor, demand leaders. One human is more active, faster, smarter than the others so that he is able and given the opportunity to lead his group. Leadership is limited and quickly disappears or changes in leadership occur based on a person's abilities.
2. Multilevel society (*ranked societies*) Ambitious and energetic men and in some societies women who can produce more than they consume themselves can use this excess production to gain and maintain influence and power over members of their group. Thus, the number of leadership positions is starting to be limited or limited. Not everyone who is talented can reach a position as a leader. Through kinship, descent and marriage, the position as leader is established and continued by the followers of the community group.Stratified society (*stratified societies*) In a stratified society, not only has a leadership position been established, so too have the opportunities to obtain the most basic necessities of life not been the same and evenly distributed for all members of society. Certain groups broke away or were forced to do so. They must be content with and in a more secure position and must be willing to be governed and servile.

This study specifically looks at conceptualization *Government Making* which is correlated with water resource management through the concept of institutional resource management (*evolution institution*). Ostrom proposes 8 design principles that are found consistently in effective and sustainable management of common pool resources, namely; (1) There are clear resource and user boundaries; (2) Matching costs and benefits for users;

(3) Collective choice settings; (4) Adequate monitoring system; (5) Application of multilevel sanctions; (6) Effective conflict resolution mechanisms; (7) The right to design institutions, and (8) Core manager.

RESEARCH METHODS

This research uses explanatory qualitative methods with case study techniques in Girikerto Village, Kapenewon Turi, Sleman Regency, Yogyakarta Special Region. Data was collected by means of observation, in-depth interviews (*indepht interview*) and document collection. Observations were carried out to see the condition of the springs in the Girikerto sub-district, including looking directly at the Water Tank Filling Station (SPTA) which is managed by Bumkal Gate Merapi. Indepht interviews were carried out through interviews with several stakeholders in Girikerto Village. The documentation is based on the RPJMKal/ Girikerto District Development Masterplan.

RESULTS AND DISCUSSION

Girikerto sub-district has very abundant water potential, so if this potential can be managed professionally in the future it will be able to improve welfare. It can be known in advance about the natural resources owned by Girikerto. The following is a table that describes the natural resources in Girikerto Village.

Water is something that cannot be separated from the framework of human life, in this case in the Girikerto community which has quite a lot of water sources as seen from the water discharge and the area of the springs. If it is related to the concept of CPR which is related to two main characteristics, namely: (1) difficulty in excluding other users from using it *(exclusion problems)*, and (2) difficulty equally distributing resources or profits from them (*subtractability problems*), then the water resources in Girikerto fall into this character.

In the development of seeing the potential for abundant water resources, through the Kalurahan Mandiri Budaya Program in collaboration with the Paniradya Special Region of Yogyakarta, it is encouraging the community's economy to increase the village's original income. One of these programs is the real work of the Girikerto Village Village-Owned Enterprise (BUMKal), namely "Gerbang Merapi" in collaboration with the community to build a Water Tank Filling Station (SPTA) using the potential of water from the "Sendang Panguripan" spring. The aim of building the Water Tank Filling Station (SPTA) is to improve the welfare of local sub-district residents. Carik Girikerto Village, Krisna Cahyana SH said that the operation of the Water Tank Filling Station (SPTA) was accompanied by the

Cooperative Service (Dinkop), which then had a master plan planned and made in 2022 and could then be implemented in 2023. Furthermore, Carik Girikerto Village also said that the purpose of using the name Water Tank Filling Station (SPTA) is so that the name can be remembered more easily and will easily create branding.

Table 1. The natural resources in Girikerto village

No	Description of Natural Resources	Volume	Unit
1	River Stone and Gravel Material	20.300,00	M
2	Urug Sands	32	Ha
3	Moorland	69	Ha
4	Rice Fields	155	Ha
5	Riverbank Land	12	Ha
6	River	51	Ha
7	Potential Rainy Season Water Discharge	70	Liters/Second
8	Potential Dry Season Water Discharge	30	Liters/Second
9	Water Storage Potential	3	Unit
10	Matt Water	15.005	M
11	Bamboo Forest	350	Clump
12	Sengon Forest	150	M
13	Coconut Plantation Commodities	600	boy
14	Coffee Plantation Commodities	1,5	Ha
15	Rice Plantation Commodities	15	Ha
16	Tuber Plantation Commodities	10	Ha
17	Horticultural Commodities	45	Ha
18	Avocado Plant	1,6	Ha
19	Goat Farming Commodities	1100	Tail
20	Cattle Farming Commodities	55	Tail
21	Poultry Farming Commodities	10.000	Tail
22	Potential for Vacant Land	5	Ha
23	Salak Plant	139	Ha
24	Forest Land	20	Ha
25	Boreholes	3	Unit
26	Plantation Plants	15	Ha
27	Settlements and Yards	44	Ha
28	Lahan Wedi cencer	2.000	M
29	Fishing land	1	Ha

The distribution of water from the SPTA, apart from the surrounding areas, also reaches the entire DIY area. In terms of collaborating with third parties, the Head of Girikerto Village, H. Sudibyo stated that the third party must follow the applicable laws and regulations and must also follow and obey the regulations in the sub-district. SPTA can be very profitable for the villagers of Girikerto sub-district, because it can provide jobs as drivers and internet maids. Apart from this, the plan to develop potential water resources in the future is the bottled drinking water (AMDK) business.

Apart from that, the potential of Jambon Springs which is used as a Pamsimas program is also an important part of water distribution for the surrounding community. Rempelas Springs are important as irrigation channels for irrigating agricultural land. Tuk Bening Nganggring is also inseparable from the source of life and livelihood of the Girikerto community which is the river flowing from the foot of Mount Merapi.

Talking about analysis, this analysis shows that the use of water for Pamsimas, Irrigation and even distribution of water from Water Tank Filling Stations cannot fully make springs the most important element in life. There are several existing problems, namely the number of trees is decreasing (Lack of water absorption and illegal cutting of trees which causes the springs to die), The springs are prone to landslides and damage and it is feared that the springs will be closed, The springs have not been optimized for the benefit of the residents, The dry season lack of water for agriculture and fisheries, clean water sources are shrinking and there is a shortage of water, shortage of irrigation water by P3A (Water User Farmers Association), and 180 families lack clean water/drinking water in Kemirikebo. On the other hand, uneven water use because water meters have not been used is a problem in itself in that users can use water as they wish without considering the needs of other communities.

Then in this section the researcher wants to answer the problem formulation above, which is related to sub-district government policies regarding water resources as well as access and distribution by the community. The analysis used uses Ostrom's conceptualization of natural resources related to the concept *government making* closely related to institutional management. Ostrom proposes 8 design principles that are found consistently in effective and sustainable management of common pool resources;:

Exixting Condition of Girikerto Village

	Design Principles ***Evolution Istitutions***	**Existing Condition of Girikerto**
1	There are clear resource and user boundaries	Rules that are appropriate to resource conditions, If you look at the regulations or policies of the Girikerto district government regarding the use and utilization of water from several springs, it can be linked to the existence of Law Number 20 of 2017 concerning Water Resources, which has the following objectives: provide protection and guarantee the fulfillment of people's rights to water; guarantee the sustainability of the availability of water and water sources in order to provide fair benefits to the community; guarantee the preservation of the function of water and water sources to support sustainable development; guarantee the creation of legal certainty, the implementation of community participation in monitoring the use of water resources starting from planning, implementation and evaluation of use; and guarantee the protection and empowerment of communities, including Indigenous Communities in water and water source conservation efforts; controlling Water Damage as a whole which includes prevention, mitigation and recovery efforts. Then there are also regulations in the DIY Regional Regulation which relate to the substance of the regional regulation: realizing optimal water resource conditions including quantity, quality and continuity guarantee everyone's right to obtain water for minimum basic needs to fulfill a healthy, clean and productive life increasing and preserving cultural values in Water Resources management realizing coordination, integration, synchronization and synergy of parties in water resources management and protect, conserve, rehabilitate, utilize and enrich water resources in a sustainable manner strengthening the role of Regional Government in realizing the fulfillment of people's rights to water. strengthening the role of the community, higher, secondary and basic educational institutions in water resources management strengthen the function of the Regional Water Resources Information System in providing open, integrated, current and accurate information in the field of water resources.
2	Matching costs rand benefits for users	savings in the use of water resources and infrastructure as a medium which is realized by using it in accordance with minimum needs; And order and justice in the use of water resources and infrastructure as a medium which is realized by providing access for water users to fulfill basic daily needs.

3	Collective choice settings	The state prioritizes the people's right to water as follows: daily basic needs; folk agriculture; and use of Water Resources for business needs to meet basic daily needs through the Drinking Water Supply System.
4	Adequate monitoring system	Supervision over the implementation of water resources management is carried out by the Regional Government through Regional Apparatus which has duties and functions in the fields of public works and mineral resources energy. Supervision is carried out through supervision, monitoring, field observations and evaluation of the implementation of water resources management in the Region. The results of monitoring are used to improve and enhance the quality of water resources management.
5	Application of multilevel sanctions	Everyone is prohibited from: carrying out water resources infrastructure development activities that are detrimental to the community; and/or dispose of waste water to water sources.
6	Effective conflict resolution mechanisms	In this analysis, the limits of rights to resources can actually be seen in the community's use of water from several springs. However, specifically for the Sendang Penguripan spring, which is the source of water for the SPTA, its rights have not been clearly explained. So far this spring is used by SPTA but not targeted at the community. Even if we use the concept *common pool resurces* its nature is *open to all* (open to all). This means that anyone can use it for the common good, especially in aspects of people's lives. So it can be said that water use has not yet been concretely seen in the District regarding conflict resolution.
7	The right to design institutions	Analysis of the right to design institutions can be seen from Girikerto's mission regarding welfare which is linked to his priority programs, namely with various kinds of new breakthroughs through: 1) Agricultural field; 2) Animal husbandry sector; 3) Fisheries sector; 4) Tourism sector; and 5) Mobilize and improve BUMKAL. In point 5, the right to design institutions in managing water resources is carried out by BUMKAL Gate Merapi.
8	Core manager	In looking at the potential studied by the subdistrict government through mapping the potential and problems that exist in Girikerto Subdistrict, it is clear that the Girikerto area has natural resources that can be used for business units. In this SPTA, Girikerto uses spring water to become a business unit owned by Bumkal and will also be developed by Bumkal Gate Merapi. Initial funding through the Special Fund is IDR 500 million.

The above analysis explains the principle *evolution institutions* 1 to 5 are areas of the Laws and Regional Regulations in DIY, while the Girikerto Subdistrict has not been able to regionalize these principles to subdistrict areas. The 6th principle regarding conflict mechanisms cannot be clearly said to be good, because the access and distribution of water is not evenly distributed and there are no clear procedures for the use of water by the community for daily needs and agriculture. Instead, dominate water resources for economic improvement needs by creating SPTA. However, if you look at principles 7 and 8, Girikerto Sumbah achieves a level of institutional independence by making Bumkal Gate Merapi exist and can partner with the private sector to access resources.

CONCLUSION

This research aims to explain the process of community access and distribution of water and how existing institutions are the answer to water management in Girikerto District. The conclusion is that Girikerto Village has become an institution capable of mapping its natural resource potential, namely water resources. Girikerto was also able to prove that he could get an investment opportunity through special funds to create a Water Tank Filling Station (SPTA) to boost the village economy. However, if it is related to Ostrom's concept of evolutions institutions in managing common property resources, Giri Kerto has not been fully able to achieve that. This can be seen from the 8 principles, many of which have not yet been achieved, because many of the principles in this case exist in provincial areas and have not been able to be passed down to sub-districts. Then water access and distribution is still predominantly managed for profit while many people still really need water.

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