Spatial planning of Mount Bawakaraeng water source area

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Abstract. The challenge of utilization of the Mount Bawakaraeng area as a source of water supply for seven regencies/cities is to perform Spatial Planning of the Mount Bawakaraeng water source area. The aim of this study is to synchronize the laws and regulations related to spatial planning in Gowa regency with the cultural principles of the Makassar people, namely punna pangadakkan tena erokku, tena kulleku in realizing the law for spatial planning in the Mount Bawakaraeng water source area, based on the Adat Sampulo Rua. The research method used is normative research with philosophical and historical approaches. The results of the research showed that the spatial planning based on the Adat Sampulo Rua has not been implemented; the exclusion of adat/local community and the absence of unity within indigenous peoples as a unique system entity in the preparation of spatial planning are the causes. The area of Mount Bawakaraeng is an important ecosystem for the availability of raw water in South Sulawesi; community participation in developing the plan, utilization and control based on local wisdom is needed, so that spatial planning policies for the water source area have positive impact to the government and society.

1. Introduction

Humans live in an environment that helps shape themselves to find suitable adaptations to their environment. The principles that govern human cultural life are determined by the spiritual tripotension of humans, namely thinking, feeling and willingness or intention. It is the creativity potential of the initiative that fosters ethics, necessities or principles in life that lead to virtue, avoiding evil and immorality [1]. In terms of resources, in the environment there are human resources and physical resources (natural resources and man-made resources). Human resources consist of the people themselves and their culture. Natural resources are categorized into biological resources (flora and fauna) and non-living resources which include land, water and minerals. Land and water are very important in human life, so the management of land and water, including protection, requires good regulation.

Local people have a high respect for the natural environment which is an integral part of their lives. Local wisdom is still dominated by customary values, for example how a community group applies the principles of conservation, management and utilization of natural resources. This can be found, for example in Central Maluku, there are known sasi, namely forest, land, sea and river sasi [2]. Customary Environmental Laws can conform to statutory regulations, but can also conflict. Basically good Customary Environmental Law; as well as statutory regulations that regulate the use of the environment in general to keep it protected without damage. However, violations of the
aforementioned matters appear to have occurred in many areas resulting in environmental damage and natural disasters that are detrimental and endangering to human life, even claiming lives.

Mount Bawakaraeng is the main source of water availability in seven regencies: Makassar, Gowa, Takalar, Jeneponto, Bantaeng, Bulukumba, and Sinjai. Mount Bulu Bawakaraeng is not only seen from its wealth of natural resources and biodiversity but also its rich history and culture that has made Mount Bulu Bawakaraeng an entity of the people of South Sulawesi [3]. Bawakaraeng is the upstream. it is like an umbrella guarding the territories [4]. There are hundreds of thousands of people who depend on it all the time. The main river created by Bawakaraeng is Jeneberang. This river trunk empties into the coast of Makassar. Watershed (DAS) almost covers the entire foot of South Sulawesi. From this riverbank, the Makassar Regional Water Supply Company (PDAM) sucks water through the Bili-bili dam.

Mount Bulu Bawakaraeng is currently at an alarming stage. Moreover, the upstream of the Jeneberang River has a high level of sedimentation after the 2004 Debris flow in the form of material movement in the form of sand and rock whose size or volume reaches 243 million cubic meters, the sedimentation in the reservoir is very high so that the water capacity should be able to reach 340 million cubic meters, now it is estimated that only around 300 cubic meters remain. The Jeneberang River is said to have been categorized as a critical watershed since 1976 until now, the ongoing sedimentation from Mount Bawakaraeng in the Gowa Regency area threatens the Jeneberang Watershed as one of the sources of living water for the community in a number of areas in South Sulawesi also threatens the condition of the bili-bili dam in Gowa, which has a reservoir area of about 40,428 hectares as a storage for raw water up to thousands of liters per second; The dam also functions as a flood controller. The condition of the sedimentation volume is increasingly critical and if allowed to continue without any solution from the government and community elements, it can result in silting along the Jeneberang watershed, even the Bili-bili Dam can be converted into a "reservoir" of rocks and sand [5].

The territorial space of the Unitary State of the Republic of Indonesia, which is an archipelago with the characteristics of an archipelago, whether as a unit covering land space, sea space and air space, including in the earth, as well as a resource, it is necessary to increase its management efforts wisely, efficiently and successfully, use and managed in a sustainable manner for the greatest prosperity of the people; In this context, spatial planning based on local wisdom is believed to be the right approach in realizing an integrated management of natural resources and artificial resources in an efficient and effective manner.

2. Method
The type of research used in this research is normative legal research by examining the spatial planning of water resources based on local wisdom. This study uses secondary data consisting of primary and secondary legal materials. The primary legal materials consist of environmental and spatial law provisions. Secondary legal materials consist of literature in the form of books, journals and articles. The approach used in this research is a historical and philosophical approach.

3. Implementation of spatial planning and groundwater spatial planning in Indonesia
Practical knowledge or traditional wisdom is popularly known as local cultural wisdom, local genius, local knowledge system, indigenous knowledge, and others. In reality, indigenous knowledge or local cultural wisdom is often pushed back and marginalized, especially if the traditional society lives in a country that applies a top-down development approach or departs from an outside view of the community, it is because traditional wisdom is often considered that it does not fulfill the demands of rationality and progress [6]. Planning theory and paradigm have recognized the need to consider local cultural wisdom in regional and urban spatial planning. Kay and Alder (1999) also noted that the potential of local culture should be a wise consideration in development, because local cultural wisdom, apart from being free of cost, also has an influence on socio-economic benefits and social industries, and is the essence of
development itself. If it does not become an integral part in development planning (as well as spatial planning), it is feared that it will cause a loss of diversity in the global life order. Kay and Alder believe that local cultural values are the main source of inspiration for the formation of enthusiasm in local knowledge (indigenous knowledge), so that local communities will have the ability to strengthen their adaptive capacity to various changes [7].

Philosophical and sociological essential meaning with the issuance of Law No. 23 of 2009, first is that the law has placed a good and healthy environment as a guarantee for the human rights of citizens. The two economic developments that are being carried out must truly have the principles of sustainable and environmentally sound development. The third point of view is that there is a shared awareness of the environment which is decreasing in quality, so it is necessary to make a joint commitment of all stakeholders to the environment. The fourth is regional autonomy which also affects the implementation of regional government. Fifth, the shared awareness that global warming causes climate change and results in a decrease in environmental quality, and finally there is legal assurance and certainty in protecting everyone's right to a good and healthy environment as part of protecting the entire ecosystem. Environmental pollution and destruction will become a social burden because in the end the community and government will bear the costs of maintaining it [8].

The involvement of the Bulutana customary community which still adheres to the Adat of Sappulo Rua in the formulation of the spatial plan for the water resources area of Mount Bawakaraeng is something that must be done because it cannot be denied that the spatial plan is basically an agreement of various stakeholders which was born from a series of constructive dialogues. and sustainable. Through a continuous dialogue process throughout the entire spatial planning process, there will be a joint learning process and mutual understanding from various parties regarding spatial planning. Based on the above description, it is interesting to examine the regulations that actually apply as living laws in the protection and use of Mount Bawakaraeng as a water source area; whether the Customary Environment Law, statutory regulations; or both; or are some of the rules of the Customary Environment Law still in effect, some of them have become rules that are no longer implemented, as well as the effectiveness of laws and regulations.

Spatial planning in Indonesia has been stipulated through Law Number 24 of 1992 stating the benefits of spatial planning, namely ensuring the interests of the public as well as individuals; resource efficiency; environmental and cultural conservation; reduce spatial use conflicts; reduce spatial inequality; and ensure the sustainability of regional development. In accordance with Law 24 of 1992 concerning Spatial Planning, the regional spatial planning system is organized hierarchically according to administrative authority, namely in the form of National Spatial Planning, Provincial Spatial Planning and Regency / City Spatial Planning, as well as plans that are more detailed in nature [9]. The Spatial Plans is prepared by taking into account the national territory as a single territorial unit which is further elaborated into a strategy and structure and pattern of spatial use in the province, including the implementation of a number of specific areas and priority areas for which handling is prioritized.

Spatial planning activities consist of 3 (three) interrelated activities, namely: spatial planning, spatial use and control of space utilization through spatial planning products in the form of Regional Spatial Plans which hierarchically consist of National Spatial Planning, Provincial Spatial Planning, and Regency / City Spatial Planning. The three spatial plans must be summarized in a development plan as a reference in implementing sustainable development planning in Indonesian territory [10]. As the main law (core) in spatial planning, the Spatial Planning Law is expected to be able to realize a spatial plan that can optimize and integrate various development sector activities, both in the use of natural and man-made resources.

The implementation of groundwater spatial planning technically needs to be adjusted to the behavior of groundwater, including the availability, distribution, potential including the quantity and quality of ground water and environmental conditions of groundwater. However, because groundwater is located in rock, its formation is of course closely related to geological processes, so that in managing its management it is necessary to pay attention to geological and hydro geological
principles. Groundwater management includes arrangements for planning, implementing, monitoring and evaluating the implementation of groundwater conservation, utilizing groundwater, and controlling the destructive force of groundwater.

4. Water as an object of customary rights

Water resources are a gift from God Almighty that provides benefits to create prosperity for all Indonesian people in all fields. Water, apart from being a basic need, is also a public good that is not owned, but in the form of global commons, which are managed collectively, not for sale or for profit. However, this traditional view has changed and is responded to, because air is not just a 'public good' but has become an economic commodity. This traditional paradigm contradicts the modern water management paradigm which is based on the intrinsic economic value (intrinsic value) of the air, which is based on the assumption that there is limited and scarce (limited and scarce) water and the need for investment or clean water supply, as the fulfillment of the rights of every citizen country [3].

The substance of the regulation includes, among others, the control of the State over water and the view that water and its sources are natural resources that are absolutely necessary for human life while still paying attention to the management and utilization of water resources that favor environmental sustainability and sustainability. Water and its sources are controlled by the state and the exercise of the authority of its authority is delegated to both central and regional governments on conditions regulated by the government by respecting the rights of the local customary law community [11]. Furthermore, the right to water is seen as a common property, namely to achieve social functions for the benefit of the people. Meanwhile, the third is regarding the management of water resources, which is inseparable from the concept of state control and rights to water as mentioned above, in regulating water utilization, its use is made for the needs of the people in all fields.

For customary law communities, control of water resources is believed to have been carried out by customary law communities long before the national organization called the state was formed. The relationship between customary law communities and water resources is manifested as customary rights. Bushar Muhammad in his book on the principles of customary law states that the object of ulayat rights is not only land, but also includes water, plants and wild animals. Likewise, with Djaren Saragih, the objects of customary rights include land, water, plants that live in the customary environment. Soeroyo Wignjodipuro stated that the objects of customary rights include: land (land), water (waters such as: rivers, lakes, beaches and their waters, plants that live wild (fruit trees, trees for woodworking or firewood). and so on), and animals that live in the wild.

The Bulutana community has unique customs and a philosophy of life that are rooted in the lives of indigenous communities. This is reflected in a tradition that has taken root in the community, especially those gathered in the Adak Sampulonrua community in Bulutana. The philosophy of life that permeates the Bulutana customary community in various aspects of social life is full of theological content, both contained in moral and spiritual messages as well as in ritual ceremonies that have become traditions. In the traditional structure of Sappulo Rua, there is a special section dealing with irrigation, called Pinati. Pinati has many vital roles in terms of water availability and distribution, including mediating water conflicts between farmers. Pinati also has the authority to decide on sanctions for those who violate customary laws related to water and forests.

At the international level, The World Commission on the Social Dimension of Globalization, which was formed by the International Labor Organization (ILO) 18 in February 2002, in its report entitled "A Fair Globalization: Creating Opportunities for All", examines several aspects of globalization and its implications for the purpose social, economic and environmental. The Commission recognizes that efforts are needed to defend indigenous and tribal peoples' rights to territories and resources, their culture and identity, traditional knowledge, and their right to self-determination, both at the local and national levels. The ILO Convention 16921 stipulates several important rights of indigenous peoples, such as free and informed consent, consultation, and compensation. The Commission also recommends that the principle of free and prior informed consent
(FPIC) must be pursued in advance to obtain the consent of indigenous and tribal peoples for the use of their natural resources.

5. Conclusion
Mount Bulu Bawakaraeng is an important ecosystem because it is the main source of raw water availability in seven regencies and cities in South Sulawesi, namely Makassar, Gowa, Takalar, Jeneponto, Bantaeng, Bulukumba, and Sinjai. Mount Bawakaraeng is not only seen from its wealth of natural resources and biodiversity but also its rich history and culture that has made Mount Bawakaraeng an entity of the people of South Sulawesi. The local wisdom of the Adat Sappulo Rua is still practiced by the people who live around the Bawakaraeng mountains. One segment of the element’s life according to Adat Sappulo Rua is Tumbuh Katlassang (natural resource development) which includes irrigation, agriculture, plantations and the environment which are handled by Pinati in the customary structure. Pinati has many vital roles in terms of water availability and distribution, including mediating water conflicts between farmers; Pinati also has the authority to decide on sanctions for those who violate customary laws related to water and forests.

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