

# Water Resource Conservation through the Myth of Lake Guard Fish

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**Abstract:** Water plays an important life for the life of ecosystem. Poor water resource management will result in water scarcity and as a consequence, drought and clean water crisis are unavoidable. Further, the availability or the scarcity of water gives impact on economic growth of local society (Ward, 2013). This research was based on a phenomenon of clean water crisis in Indonesia, especially in Tasikmalaya. In this city, there is a natural lake used as the water source for the paddy field and fishery. In order to keep the water resource, the conservation is done by, one of them, making people believe on the myth of lake guard fish. This research was underpinned by a pragmatics theory, viewing literature as a text that is able to influence readers and used descriptive method. The results showed that the myth of lake guard fish becomes the medium to manage the water resource derived from natural lake of *Situ Cibeureum*. Water availability in *Situ Cibeureum* can be maintained because of the belief on the myth. The people believe that *Situ Cibeureum* will never be a let-up by reason of 'Si Layung' and 'Si Kohkol' roles in guarding the lake condition. If the myth of lake guard fish never exists, it is very possible that *Situ Cibeureum* is exploited for capitalist industries and natural lake will change its function becoming residential areas or recreational industries, breaking the balance of nature.

## 1 INTRODUCTION

This research is based on a consideration that there are ample numbers of lakes in West Java, one of them is *Situ Gede* in Tasikmalaya (Ekadjati, 1995). In Tasikmalaya, lake is used for daily needs. Society uses the water from the lake for field irrigation, fishery, and domestic or household consumption (Sulastriyono, 2009). Further, it is also used as a tourism object, *Situ Gede* is one example. Some resources of lake water come from the mountain and from the rain.

Some countries including Indonesia has been suffered from significant water scarcity in the dry season, yet it is overflowing in the rainy season that even results in flood. This phenomenon is likely to be resulted from poor management of environment, imbalance resource and the life of the water resource itself. Human often exploit resources without maintain their availability for future purposes. An effort to make people aware of water resource management is necessary for conservation, for the next generation to enjoy. Water resource management has been maintained by people in Village Kuta, Ciamis. Aulia and Arya (2011) states that people in the village has a good water resource management

system. They set a custom rule in water usage. The water consumption in Village Kuta is divided based on daily and ritual needs. Daily needs purposes are obtained by giving the water through the pipes and for necessary use only, meanwhile, the ritual needs is done by sourcing the water from *Hutan Keramat* (Holy Forest) and is used only for ritual purpose (Aulia and Arya, 2011).

Likewise, Asefa, Adams, and Kajtezovic-Blankenship (2014) carried out a research on water resource conservation due to the increase of population and the building of many industries and residential areas resulting in the lack of water resource in Tampa Bay. To anticipate water scarcity and poor water management in Tampa Bay, some methods were done including: restructure of water conservation development of Long Term Water Main Plan, many investments in alternative water availability based on the surface (Hillsborough River, Alafia River, and Tampa Bypass Canal), offshore reservoir, sea water distillation, and soil water resource conservation (Asefa, Adams, and Kajtezovic-Blankenship, 2014).

Aulia and Arya (2011) emphasizes the effort of conservation in Village Kuta through the implementation of custom's rule for water use from

*Hutan Keramat*. Moreover, Asefa, Adams, and Kajtezovic-Blankenship (2014) highlights the attempt of conservation by restructuring the land near the water resource. This research emphasizes on the function of lake guard fish as a way to conserve water resource. It also centers on the use of custom's rule in the form of myth to conserve the water and to restructure the use of the land around the water resource (lake).

This research shows that the belief on the myth has made the water never a let-up and thus, the myth has also contributed to the maintenance of natural environment to keep it long lasting. The myth has become a part of society's way of life to live in harmony with nature and has furtherly been a natural restructure to conserve the resource of water in Tasikmalaya. Water resource conservation through the myth makes its people use water wisely and makes them aware of saving water and keeping the resource from exploitable use.

## 2 METHOD

This qualitative research used a direct source, namely natural environment and analytical descriptive methods as an attempt to describe facts and meanings based on the data collection (Nyoman, 2015). The data were the story about and the function of the myth of lake guard fish, obtained by means of interview to an informant (Atang, 72 years old) and of observation. The research was conducted in *Situ Cibeureum*, Tasikmalaya, West Java.

The data were analyzed qualitatively in line with the research purpose, namely to describe the myth of lake guard fish as the media of environment conservation. The research involved five stages; (1) observing the location to meet the informant; (2) interviewing the informant in a semi-structured way to give more opportunities to the informant to provide as complete information as possible and transcribing the interview data; (3) analyzing the myth; (4) analyzing the function of the myth and its relation to the supporting society to conserve the water resource; and (5) concluding the results of analysis.

## 3 RESULTS AND DISCUSSION

### 3.1 Myth of 'Si Layung' and 'Si Kohkol'

*Situ Cibeureum* is a natural lake and people believe that it was built by Ki Bagus Djamri, an Islamic scholar who spread Islam in Tasikmalaya area, especially in Tamansari. In the beginning, the lake was built because Ki Bagus Djamri dreamt, ordered to make a big pond with a hut in the middle for gathering. Waking up from his sleep, Ki Bagus Djamri realized his dream and created the pond with a hut in the middle, supported by a pile of soil, looked like a small island. He was hesitated at first since he could not find the water source around the area to water the pond. However, he did not give up and finally found the source to flow the water into the pond he made. Gradually, the water overflowed and flooded the area, but the island stood still and it then became *Situ Cibeureum*.

The myth tells the people that the lake has been guarded by two types of fish, a gold fish named *Si Layung*, a chinese red color fish, like the sky in the late afternoon, and a cork fish, named *Si Kohkol*. These two fish often appeared to tell that something big will happen in the area or even in Indonesia. Further, if visitors come to the area ruining the peace of the lake or act bad, both fish will show up and make them passed out for a while. When *Si Layung* and *Si Kohkol* show up, the color of the lake water turns into red. If it occurs, something is wrong; it can be an indication that a rule is violated, or something big will happen.

The people believe in it because before May 1998 tragedy took place, people had seen the color of the lake water turned into red. Therefore, there are some rules for people to obey when visiting *Situ Cibeureum*. These rules include; do not say bad and rude words, do not act arrogant, do not make any commotion, do not make the lake dirty, and do not do immoral act around the lakes. If these rules are violated, lake guard fish will show up and make the people who violate the rule pass out.

### 3.2 Myth as Water Resource Conservation

Society creation not only enriches the life and experience but also teaches concept and valuable guidance with many kinds of ways (Kayhan, 2013). Folklore refers to a story developed within society and is orally spread. It is considered as an entertaining

narrative, though viewed from the fields of sociology, anthropology, and ethnography, it actually describes things or events happen in the past. The folklore that has been told from one generation to another cannot be forgotten as it is not merely a product of a mind and imagination. It is almost always based on things happened in the past as parts of people experience. This product also transfers way of life, value, belief, and system of people belief created for the next generation (Kayhan, 2013).

Society's belief is not based on scientific knowledge and involves creatures or powers. It is much more understood as religious thing, such as the statement of thinking and human social relation. Further, folklore contributes to the dynamics of larger daily life and sometimes creates a ritual practice as shown in the myth of lake guard fish (Herva and Ylimaunu, 2009). Viewed from scientific point of view, folklore actually covers scientific fact. Sometimes, it illustrates plants, animals, heroic figures, geographical conditions, histories, and certain cultures (Guernic, 2004; Kayhan, 2013). Folklore also relates to the belief of society, implying the change of behavior or attitude. Likewise, a folklore related to a myth can view society's behavior who obey all myth-related rules. The myth has given guidance and certain direction on things to do and not to do in humans daily life. Humans interaction with many elements of lives demands a rule to manage relations among humans, God, nature, and themselves (Sedyawati, 2008). In daily life, it is said that myth functioned to make people aware of other powers beyond themselves that influencing the universe and their lives as well, guaranting their future, acting as mediator between humans and the power of nature, giving knowledge about the world, and guiding humans behavior.

The myth of *Si Layung* and *Si Kohkol* is manifested in daily behavior of people live near *Situ Cibeureum*. At least there is a connection between water consumption and behavior and attitude in using the water, especially those for household purposes (Otaki, Ueda and Sakura, 2017). The people living around the lake use the water for paddyfield and fishery purposes. The usage itself is not exploited, such as for the fishery, for ponds inside the area of the lake. For the paddyfield, the water is flown using the pipes, volume and number of pipes are limited to prevent from water overuse. Therefore, the water is always available for the paddyfield, regardless the dry season. People living near the lake do not use the water for domestic purposes, such as for washing or for taking a bath, since it can be contaminated by plastic trashes and the lake will get dirty. This is also

based on the strong belief on the lake guard fish so they will not do such kind of action. Society's behavior to use the lake wisely is a form of local wisdom on the knowledge of environment balance. People believe that they do not live alone but side by side with nature and other invisible creatures. They also believe that those creatures will not disturb as long as they do not disturb them. Those creatures can be used as the media to conserve natural environment, manifested in the form of myth.

The myth of *Si Layung* and *Si Kohkol* showing up when visitors behave bad has become the guidance for the people to behave. It does not mean that people more believe on something mythical or beyond reason, it is actually a form of respect from society on the harmony of interaction between humans life and natures and other creatures. Atang, 72 years old informant stated that lake guard fish can come into real as big as a giant drum. There are some rules to obey regarding the myth, including do not say bad and rude words, do not act arrogant, do not make any commotion, do not make the lake dirty, do not do immoral act around the lakes. Campers need to ask permission from the guard mediated by a person called *juru kunci*. It is a person who takes care of a sacred place. If they did not do this, something bad usually happens to them, such as being possessed. These rules are commonplace and can be applied in many places, it does not have to be in a lake or a graveyard. However, the implications of the rules are greater, those are to create respects, tolerance, obedience, and humble attitudes. By having those characteristics, an individual will grow into a man of character, for society and for environment. The absence of the rules in the area will give a chance for irresponsible people to exploit the lake. As a result, the lake will get dirty, its balance is disturbed, the water supply will be restricted, people will not be able to make use the water optimally and in the long run, the economic life of people around the lake will also be ruined. There is a concept of maintenance of a thing in rules creation, in this case, is to conserve the resource of water. The appearance of *Si Layung* and *Si Kohkol* has become the media to manage the environment since its emergence will also mean that poor attitudes or bad actions take place. A myth is a way to preserve the environment naturally.

Apart from this myth, near the area of *Situ Cibeureum*, stood a grave, believed to be Ki Bagus Djamri, the figure who built the lake. *Si Layung* and *Si Kohkol* are tasked to guard the lake built by Ki Bagus Djamri. The grave has become a medium of environment conservation as it is considered as a sacred place and visited by many people to pay a

respect. It creates a sense of belonging to society who live near the area. They believe that they indirectly have big roles to maintain their environment in their own way; by visiting the grave and paying a respect to the grave. In this stage, society does not make the grave as a cult, however to create this as a medium to conserve the environment by making people keep the area near the graves to be prevented from damages, disturbances, and dirt. The society respects the creator of *Situ Cibeureum* by maintaining the areas around the grave and the lake.

Water management in *Situ Cibeureum* can be done through social regulation existing in the society, through a myth of lake guard fish. This type of management system is considered as traditional and illogical, despite giving impact on the society's attitude towards the use of the water for daily needs. Awareness on the water conservation has influenced the habit of water usage (Gregory and Leo, 2003). The people use water as necessary and not being exploited because they believe that the water in the lake must always be available. If the water in the lake experiences a let-up, people are feared that lake guard fish will be furious and the habitat is disturbed. Moreover, if the color of the water turns into red, it means that the lake guard fish are displeased and that society has broken the rules related to the lake. Scientific explanation reveals that water is always available in the lake because the source of the water exists in the base of the lake, despite that some research have not yet yielded any results. However, it is very likely that the water source exists in the base of the lake because the lake does not take water from the mountain, makes use of the water from the rain in the rainy season, never be a let-up in the dry season. Apart from that, the area of *Situ Cibeureum* is surrounded with forest and creates a good water precipitation area. The water falls in the rainy season can be absorbed well since there are many trees in the forest and the forest itself is kept well. It makes the water be preserved within the soil and never be a let-up in the dry season as the water debit are stored in ample in the soil.

The myth plays an important role to reproduce culture and all spiritual aspects, to make a better, more wonderful, meaningful life, to guarantee the viability of individual development and harmonious society (Nessipbayeva, 2013). Lake guard fish is a form of water resource management. Many rules in the myth are obeyed as a form management and plan in the life of the resource, particularly water. When the rules are violated, the lake is no longer a sacred place and it creates an opportunity for capitalist corporations to access the lake and change its

function to become residential areas. This phenomenon can also be seen in some Tasikmalaya areas. Some areas used to be paddyfields are now changed into residential areas with cluster system, though the locations are far from the city. The rules related to the myth of *Si Layung and Si Kohkol* turns Tamansari to become cool and beautiful. Many kinds of old and big trees are still robust and dense. The island located in the middle of the lake is known as *Nusa Pangepulan*, surrounded by big trees as a medium to conserve the environment as it becomes the part of ecosystem of *Situ Cibeureum* area. Society's belief is able to conserve the water on the surface and in the soil, to limit the water quota for domestic use, and to make people set their rights in the use of water for farming fairly (Zhu and Li, 2014).

Water consumption is significantly related to the attitude of society in relation to the use of its management and conservation (Domene and Sauri, 2006). Knowledge regarding water resource in *Situ Cibeureum* is manifested by the myth of lake guard fish. The myth of mythical creature as a guardian of a place is indeed effective to keep the ecosystem and balance the nature to make it last and renewable. The myth of lake fish guard is a way of society to manage and plan the use of water resource wisely. The myth gives an impact on friendly environment water management and long-term plan water management system for the life of water resource in years to come. The myth also influences the way people living in the area managing their environment. They understand that the water of *Situ Cibeureum* does not source from the rain, but from a water source. It is different from other lakes such as *Situ Gede*, sourced its water from the rain and thus there is a let-up when the dry season takes place.

Despite this, it is very possible for *Situ Cibeureum* to have a let-up if the condition is not well conserved, and is very likely to affect the economic growth of those who are especially count on their lives on the water lake. Table 1 explains the water source in lakes in Tasikmalaya affected the life of water resource in years to come.

Table 1: Lake water source.

Source of Water	
From Rain	Unknown
Situ Gede	Situ Cibeureum
	Situ Sanghyang
	Situ Bojong
	Situ Malingping

Table 1 explains that the water source of *Situ Gede* coming from rain, while the other lakes,

including *Situ Cibereum*, *Situ Sanghyang*, *Situ Bojong*, and *Situ Malingping* do not source its water from mountains or rains. It shows that all fourth lakes have natural water source that are likely situated in the base of the lake. One of the evidence shown is that all fourth lakes never have a let-up, while *Situ Gede* experienced a let-up as much as 60% in August 2017.

Along with life's development with all positive impacts from the advance of technology and human's orientation, negative effects in relation to environment pollution and nature imbalance become one factor to encourage human to be aware of the importance of living in harmony with nature. Gradually, society is aware of the importance of ecosystem's life, by starting to conduct many programs or by making a habit of conserving environment such as planting trees and saving soil water usage. On the other hand, a custom society who lives with strict custom rules has maintained environment since long time ago and gone on until present. Long-lasting water resource availability is one challenge for society to make an attempt to conserve or to use it more efficiently through strategies learnt from society's wisdom (Liu, Giurco, and Mukheibir, 2016). This wisdom is in the form of custom rules, such as myth and makes use of it to become environment wisdom to make the environment stay long and well kept in balance. The rule in grave area such as restrictions from cutting the trees and from breaking the plants have become an effective conservation. In the sacred grave area, there are many trees and since the location is in the middle of the lake, the area is refrained from the access of capitalists. Little forest in the grave area has become the medium for water precipitation to keep the life of the water source and of the ecosystem.

#### 4 CONCLUSIONS

*Situ Cibereum* society can be categorized as low water users since they only make use of lake water for farming needs. Low water consumption is actually a form of water conservation to certain limits by not exploiting water for other needs because of their beliefs on maintaining nature balance. Environment belief in general influences the development of belief specifically related to water; the belief on the nature balance impedes exploitative behavior (Corral-Verdugo, Bechtel, and Fraijo-Sing, 2003). *Situ Cibereum* society does not compare self-consumption with others that will actually discourage motivation for water source management. The use of

water gets decreasing when people see improvement in water saving, no let-up in the rainy season.

Many things are implemented to change people's behavior to be more responsible for environment. One of them is by putting into actuals the values related to the myth of lake guard fish. The myth is a simple way for society to keep the balance of the environment with its various mythical stories. Therefore, environment conservation and natural resource programmed by the government has been started by our ancestors through many myths developed in the society. Apart from using the myth as an approach for water management, building awareness of water source through environment campaign and information delivery on the lack of water source is another alternative.

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