

TEMPE LAKE MANAGEMENT POLICY IN WAJO REGENCY

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Abstract

This study aims to explain and analyze the process of implementing the revitalization of Lake Tempe in Wajo Regency. In addition, to find out what factors in the revitalization process that encourage the emergence of conflict in the handling of Lake Tempe. This study uses a qualitative method with a descriptive approach. The data used in this study are primary data obtained from interviews and secondary data collected through literature review and documentation. The data analysis method used is descriptive analysis of the results of interviews based on the theoretical framework used in this study. The theory used is the Policy Perspective, Conflict Theory, and the Concept of Revitalization. The results of the study show that the existence of a policy process is one form of handling that has been carried out by the Ministry of Public Works and Public Housing through the Wajo Regency government in the context of the implications of Lake Tempe by carrying out the revitalization of Lake Tempe. The government by way of the Tempe Lake revitalization program received different responses from the community which prompted the emergence of conflicts. The factors in the revitalization process that led to conflicts in the handling of Lake Tempe are: There are differences in perceptions of water levels, changes in patterns and utilization of Lake Tempe resources, There are fears of decreasing income.

Keywords: Lake Tempe, Revitalization, Conflict

INTRODUCTION

Wajo Regency is known as an area that has a wealth of inland water resources, namely Lake Tempe. Lake Tempe is one of the lakes that has considerable potential in South Sulawesi Province. Administratively it is located in 3 different administrative districts, namely Wajo Regency, Sidrap Regency and Soppeng Regency. The magnitude of this potential becomes the main capital in the local community's economic system, especially for traditional fishing communities who depend on the existence of the lake for their livelihood.

Lake Tempe is a tourism landmark of Wajo Regency and the Branding Equator Of Asia which was declared at a high-level meeting of 4 countries in East Asia (Brunei, Philippines, Malaysia and Indonesia) which were members of the East Asia Growth Area (EAGA) Forum on March 26, 1994 in Dava City Philippines, through the signing of Agred Minutes. As a tourist destination, Lake Tempe presents a variety of natural uniqueness surrounded by mountains and hills, the unique culture of traditional fishing communities with floating houses and traditional techniques for using Lake Tempe, as well as a stopover place for a group of birds/pelicans crossing from Australia-Africa when the country is in autumn. Apart from being a tourism destination for Lake Tempe, it also plays an important role in the development of science as a natural laboratory that never runs out to be studied in depth.¹

The lake is a very important resource for the people who live around it. Since ancient times, the ancestors taught the community about the importance of the lake for their lives. The lake is a source of livelihood which is likened to oneself. They liken the lake to be like a member of their own body, so the Wajo people, especially those who live around the lake and depend their lives either directly or indirectly on the lake and the biota in it, try to care for and protect the lake as they take care of their own bodies. If any of the rules of the lake were violated, it would mean that they had injured themselves with their own hands.²

Thus the Minister of PUPR strengthens the synergy carried out by signing a memorandum of understanding on saving national priority lakes carried out at the Ministry of Environment and Forestry. The revitalization of Lake Tempe is one of the priority projects belonging to the Ministry of Public Works, which is in accordance with the joint agreement at the National Lakes Indonesia Conference (KNDI) in 2009 regarding the management agreement of 15 priority lakes, one of which is Lake Tempe in Wajo Regency.³

Wajo Regency Regional Regulation Number 14 of 2016 concerning the Management of Lake Tempe in Article 3 regarding the management objectives of Lake Tempe are: Utilizing the lake for the benefit of the community in a sustainable and environmentally friendly manner, increasing community participation in utilizing and preserving the lake, but on the other hand it is not in line as it should because it is not in accordance with the current facts where in Lake Tempe there is an area auction rental mechanism that triggers the conflict that occurs.⁴

One form of handling that has been carried out by the Ministry of Public Works and Public Housing through the Wajo Regency government in the context of the implications of Lake Tempe is by carrying out the revitalization work of Lake Tempe which is located in three regencies namely Wajo Regency, Soppeng Regency, and Sidrap Regency with a land area of 13,000 hectares. started in December 2016. The revitalization work in Wajo Regency was carried out by KSO PT Nindya and FAF with a budget of Rp. 283.98 billion and completed in early 2019. The forms of revitalization that have been carried out are dredging the sidementation of the lake which reaches 8.58 million m³, erecting bamboo culms, controlling water weeds with regular cleaning of water hyacinth as well as installing geocomposites and geosynthesis, the results of the revitalization This will provide an additional capacity of 7.23 m, from the current volume capacity of 207.66 million m.⁵

Revitalization aims to maintain and deepen permanent inundation so that the fishery sector ecosystem is maintained, not only that, the community and government are also facing the challenge of increasing rainfall due to the tendency of increasing minimum and maximum air temperatures, resulting in increased flooding.

¹ Department of Youth, Sports, Culture and Tourism of Wajo Regency, 2011. Profile of Lake Tempe, Wajo Regency, South Sulawesi Province. Sengkang : p.1.

² Fajar Setiawan, H. W. Physical Characteristics of Tempe Lake as a Flood Exposure Lake. Proceedings of the MLI Annual Scientific Meeting. 2003

³ Ministry of Environment and Forestry, at the 2009 National Lake Indonesia Conference

⁴ Wajo Regency Regional Regulation Number 14 of 2016 concerning Tempe Lake Management

⁵ Ministry of Public Works and People's Housing, 2018 PUPR News. Retrieved from <http://pu.go.id/berita/view/15397/kementrian-pupr-revitalization-danau-tempe>

Revitalization is not running as it should be because one of the other problems is the commercialization of the management of the lake area from the local government through the area lease mechanism. The management of a marked area is determined through an auction mechanism. This leased area is called Tanah Koti or ornament. The value of one area can reach hundreds of millions of rupiah, the winner of the auction will control the area within a certain period of time. Where the owners are people who have a lot of money, which usually comes from businessmen and partly from officials. then fishermen are harmed because of narrowing the catch area of fishermen, just imagine there are 3000 fishermen who have to do activities on Lake Tempe every day, sometimes even between fishermen their nets are wrapped around each other, and this is also what often creates conflicts between fishermen because of fighting over places. The existence of Tanah Koti further narrows the catchment area but also has an impact on water management in Lake Tempe, even the fishermen themselves have complained about this to the Wajo Regency DPRD and immediately responded by releasing some Tanah Koti, although not entirely.

However, the solution that the government is working on is the Lake Tempe revitalization program, which triggers conflict because it gets different responses from the community, where the goal to minimize flooding has not been proven and has not been fully felt by the community and has created conflict for some people. Because the revitalization program carried out by the local government is considered to make problems occur. In general, the local government supports it, as well as the people around the lake who are often affected by floods due to the overflow of Lake Tempe every year.

RESEARCH METHODS

This study uses a qualitative method with a descriptive approach. The data used are primary data and secondary data. Primary data was obtained from interviews and secondary data was collected through literature review and documentation. Descriptive data analysis of the results of interviews based on the theoretical framework used, namely: Policy perspective, conflict theory, and the concept of revitalization.

RESULTS AND DISCUSSION

Lake Tempe is one of 15 critical lakes in Indonesia set by the Ministry of PUPR. The condition of Lake Tempe which is experiencing siltation due to the massive growth of water hyacinth and sedimentation. So that the handling carried out by the government through the Ministry of PUPR is by revitalizing the lakes of 15 priority lakes to restore their natural functions as water reservoirs and including Tempe Lake. The revitalization activities carried out were by dredging the sedimentation results of the lake which reached 8.58 million m³, planting bamboo culms, controlling water weeds with regular cleaning of water hyacinth and installation of geocomposites and geosynthetics.⁶

Lake Tempe is a lake known for its various potential resources, both from the fisheries and agriculture sectors. The natural wealth and potential are utilized by the surrounding community to fulfill their daily life. Broadly speaking, there are two community groups in the Lake Tempe area, namely the farmer group and the fisherman group.

Wajo District Regulation number 14 of 2016 concerning the Management of Lake Tempe in Article 3 regarding the management objectives of Lake Tempe are: Utilizing the lake for the benefit of the community in a sustainable and environmentally friendly manner, increasing community participation in utilizing and preserving the lake, but on the other hand it is not in line as it should be because not in accordance with the current facts where in Lake Tempe there is an area auction lease mechanism that triggers conflict.⁷

The revitalization will increase the storage volume capacity by 7.23 m, from the current storage volume capacity of 207.66 million m. With the increase in the volume of the reservoir, it will be able to meet the raw water needs of the people around Lake Tempe, from around 23 thousand people to 30 thousand people.

Revitalization aims to maintain and deepen permanent inundation so that the fishery sector ecosystem is maintained, and not only that, the community and the government also face the challenge of increasing rainfall due to the tendency of increasing minimum and maximum air temperatures, resulting in increased flooding. But some other communities refuse, especially for small-scale fishermen and farmers who use agricultural land during the dry season. because with the revitalization of

⁶ Musdah, E., & Husein, R. *Analysis of Non-structural Mitigation of Lake Tempe Flood Disaster*. Journal of Government Science and Public Policy, 1(3).2014 Retrieved from journal.umy.ac.id/index.php/GPP/article/download/2112/2038

⁷ Wajo Regency Regional Regulation Number 14 of 2016 concerning the Management of Lake Tempe

agricultural land that is usually used by the community will be lost. then the impact felt by the shores of Lake Tempe, now felt by fishermen who complain due to the lack of fish in the lake, even fishermen tend to find it difficult to find fish in the lake. As stated by Mrs. Andi Tenri as a staff of Bappelibangda Wajo Regency:

*"...Revitalization will not restore the condition of Lake Tempe as it was originally formed in ancient times. But Lake Tempe will be restored to health, with the same area as now. Thus, the lake will recover, but the community's economy can still run."*⁸

But it turns out that the revitalization of Lake Tempe that has been carried out is of no use. The goal to minimize flooding has not been proven and has not been fully felt by the community. The accumulated impact of flooding is almost felt by local residents every year. But on the other hand, the Lake Tempe revitalization program received different responses from the community, in general the local government supports it, as well as the lake community who are often affected by floods due to the overflow of Lake Tempe. They have been waiting for the program for a very long time, not without reason, because almost every year the surrounding community experiences floods that submerge their settlements and existing agricultural land.

As stated by Mr. Aswan Nur as Head of the Tourism Destinations Division of the Lake Tourism Office:

*"...The revitalization of Lake Tempe has become a national scale, because it has been a long time since Lake Tempe has wanted to be revitalized due to the high sedimentation rate that has occurred, and the public must be aware that this revitalization is carried out so that the fish population in Lake Tempe can breed with the depth- certain depths in Lake Tempe. So the community only thinks briefly about their income, does not think about the long term that will occur from the revitalization carried out by the Government, where Lake Tempe is the largest freshwater fish producer in the world which is rarely owned by lakes in Indonesia, even though with the revitalization by dredging can increase the income of fishermen, from paduppa. PPI 45, there are 30 artificial islands, Pakkanna village is included in the provincial strategic area, so it has become the responsibility of the province in terms of regional area development, the local government only facilitates and supports. And the regional government is also making efforts to increase the income of the fishermen."*⁹

The government is revitalizing Lake Tempe as a flood exposure lake so that it is a water reservoir (secondary water terminal) from a number of river flows around it before flowing out into Bone Bay via the Cenranae River. As a secondary terminal, the fluctuation of the water level (TMA) of Lake Tempe depends on the capacity of the river flowing into and out of the lake. The high water level of the lake during the rainy season is caused by the insufficient capacity of the Cenranae River to drain water out of the lake and the decrease in the lake's storage capacity due to silting due to sedimentation so that water overflows into residential and agricultural areas. Meanwhile, during the dry season, the lake's TMA decreases drastically so that most of the lake's tidal land turns into agricultural land.

Meanwhile, some groups of farming communities, especially those who use lake land for farming, still want low/reduced lake water. They think that it will be difficult to carry out activities if the lake water is high, especially if the lake has been dredged, their cultivated land will be deeper and always inundated with water.

The factors in the revitalization process that led to the emergence of conflicts in the handling of Lake Tempe are:

1. Differences in perception of lake water level

However, these activities have implications for the elevation of the lake water which will have an impact on activities, especially fishermen. In the context of lake water elevation there is a perceptual polarization, which can be divided into two categories:

- a. A group of fishermen who want the water level of Lake Tempe to be high. The fishing groups are lanra, barge, jabba trawl/wire and net.
- b. A group of fishermen who want the water level of Lake Tempe to be low. The fishing groups are bungka toddo, belle, and strom battery.

As stated by Mr. Andi Kadir as an NGO, namely:

"Where is the bungka toddo', it turns out that sometimes it creates its own problems for fishermen and can cause conflicts between fishermen. The Regional Government itself then

⁸ Interview with Ms. Andi Tenri, as Bappelibangda Staff On May 4, 2021 at 14.08 at the Wajo Regency Regent's Office

⁹ Interview with Mr. Aswan Nur, as Head of the Tourism Destinations Division of the Lake Tempe Tourism Office at 09:30 at the Office of Tourism and Sports of Wajo Regency

makes arrangements, by setting the area that can be claimed is only 500 meters long. Despite the fact that sometimes there are those who have wider territorial claims."¹⁰

In addition, there are groups of farmers who of course really want the lake water to be low/low tide. This is related to the difficulty in carrying out agricultural activities if the lake water is still high. Likewise, if the lake land is dredged, then the possibility of their cultivation is getting deeper and will always be inundated with water.

2. Changes in Patterns and Utilization of Tempe Lake Resources

Lake Tempe, which is known for its potential and wealth of natural resources, especially in fisheries, has several types of utilization sectors, namely the fisheries sector, the agricultural sector, transportation services and tourism. With the various potentials possessed by Lake Tempe, it is a concern for several relevant government agencies. Utilization of lake resources by the local community itself has been going on for a long time and has been passed down from generation to generation. Communities around the lake who almost all work as fishermen and farmers make this Lake Tempe resource a source of livelihood to meet the needs of their families. The activities of fishermen and farmers are usually carried out alternately, namely in the rainy season when the lake water is high tide, most of the people act as fishermen to catch fish. When the dry season arrives or the lake water recedes, people return to their activities as farmers who use lake land that is not flooded to grow food crops, such as corn, soybeans and watermelon.¹¹ As stated by Mr. Aswan as Head of the Tourism Destinations Division of the Lake Tempe Tourism Office:

"...The lake border has had an initial meeting on this problem, with the lake border the community will be arranged with settlements, which areas can and can be managed, but this is only an initial study, and maybe the community will be more surprised to hear this news. . For the border of this lake, Lake Tempe is the second lake in Indonesia. Later, if the lake borders have been regulated, there will be no such thing as land tenure, and ornamental lands, and land boundaries except for those that are permanent lands will no longer be able to be managed unless they will self-destruct. So indeed the lands there are already certified and one day it will be regulated by the local government."¹²

3. Worries of Declining Income

In line large, there are two groups of people based on work in the area of Lake Tempe (although mostly in between is the same, the two professions), namely the fishermen and farmers. In the group of fishermen, in the typology can be divided based on the type of tool capture used:

- a. Fishermen Bungka toddo : fishermen who look for fish by way of making a mound of plant water (especially hyacinth hyacinths) as a point of shelter and growing proliferation of fish by using blinds (bamboo) as a trap that surrounds the water plant. Generally requires a low elevation of ± 1.25 meters.
- b. Net fishermen : fishermen who use nets to catch fish. Generally, in the middle of a lake or a river channel in the middle of the lake were already receding by using boats.
- c. Fishermen jabba trawling : fishermen who use traps shaped in terms of four in the series sufficient number of lots.
- d. Fishermen jabba wire: fisherman who uses a rectangular traps made of iron or wire were used separately and usually in amounts much.

Fishermen barge: fishermen who use the tool fishing nets with handles like a dipper.

- a. Fishermen strom battery: fishermen who use strom aaki as a tool to catch.
- b. Fishermen spear: fishermen who use spears as a means of catching fish. Usually done at night the day by using the lamp lights.
- c. Lanra fisherman: Fisherman who looks for fish using nets. Generally requires water that is > 1.25 meters high and is at a depth of or around the toddo flower.

From a number of tools to catch it, actually there are included prohibited by the local government, namely strom battery, barges, *jabbatrawl*, and *jabba* iron. These types of fishing gear are prohibited because small fish are also taken, so it is feared that the fish production

¹⁰ Interview with Mr. Andi Kadir as an NGO in Tempe District at 11:00 at his house

¹¹ A Ramadhan, Triyanti, and Koeshendrajana, *Characteristics and Economic Value of Water Resources at Lake Tempe Complex, South Sulawesi*. Journal of Socio-Economic Marine and Fisheries, 3 (10). 89.

¹² Interview with Mr. Aswan Nur, as Head of the Tourism Destinations Division of the Lake Tempe Tourism Office at 09:30 at the Office of Tourism and Sports of Wajo Regency

of Lake Tempe will decrease, and even become endangered. If you look at the amount of income, it can be said that the income level of fishermen is quite varied. As stated by Mr. Ardi, a fisherman, namely:

“Today's income is different from what it used to be, especially around Lake Tempe, there are a lot of fishermen who depend on this Lake for their livelihood, because now there are lots of regulations regulated by the local government regarding fish catch. During the revitalization process, it has been very narrow catchment area.¹³”

CONCLUSION

Lake Tempe is a lake known for its various potential resources, both from the agricultural and fisheries sectors. The natural wealth and potential are utilized by the surrounding community to meet the needs of their daily life. Broadly speaking, there are two groups of people in the Tempe Lake area, namely the fishermen group and the farmer group. Where that is one form of handling that has been carried out by the Ministry of Public Works and Public Housing through the Wajo Regency government in the context of the implications of Lake Tempe by carrying out the revitalization of Lake Tempe, but the solution carried out by the local government by way of the Lake Tempe revitalization program received a different response - different from the society that causes conflict to occur.

Factors in the revitalization process that led to conflicts in the handling of Lake Tempe:

1. There are differences in perceptions of water level between fishermen who want high lake water (*lanra*, *barge*, *jabba trawll* wire and net) and fishermen who want low lake water (*bungka toddo*, *belle*, and strom battery) and farmers who use land if water receded to grow rice, corn, beans green, soy, pumpkin, and watermelon;
2. Changes in the pattern of use of land such as soil ongko / cash villages that during this lease and become a source of income cash village; land is controlled (with SPPT) and belongs to the community which is a source of meeting community needs. These conflicts can create two conflict patterns, namely vertical conflicts, especially fishermen who want low water (fishermen/farmers/land owners) and the government; and horizontal conflict between fishermen who want high lake water and fishermen/farmers/land owners who want low lake water.
3. There is concern that the income of fishermen/farmers will decrease, especially those who want low lake water.

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¹³ Interview with Mr. Ardi as a Fisherman at Lake Tempe On May 5, 2021 at his house