

# Obey The Law of Mangrove Forest Conservation (From Coastal Communities, in Takalar Regency, South Sulawesi)

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## ABSTRACT

The objectives of this study were to find and to analyze: (1) the strategy of the local government of Takalar district in the conservation of mangrove forests to prevent abrasion; 2) obey the law of coastal area communities in mangrove forest conservation; 3) influential factors in increasing community participation for mangrove forest conservation. Research method: This research was sociological legal research that examined obey the law in Mangrove Forest Conservation in the Coastal Community of Takalar Regency, South Sulawesi. The results of the study: (1) the district government's strategy for mangrove forest conservation was pursued through local regulations, the movement of mangrove planting in coastal areas and small islands; (2) community obeyed the law regarding mangrove forest conservation because the community were scared if they will be given sanction, intrinsic motivation to obey the law because they adhered and believe that mangrove forest conservation is right to do, to maintain good relations with community groups; and (3) factors that influence mangrove forests, namely the policies of local and village governments, facilities and infrastructure in coastal areas and small islands were relatively limited and human resources were inadequate.

**Keywords:** *Obey the law and Mangrove Forest Conservation.*

## 1. INTRODUCTION

The issue of community obey the law in mangrove forest conservation in Indonesia needs to be considered with the following two considerations: first, for reasons of national development, economy and national welfare, environmental conservation is often neglected. Even though many regulations emphasize the obligations of citizens, stakeholders and the government to protect, manage and preserve the environment in the implementation of sustainable development, so that the environment in Indonesia can remain a source and life support for the Indonesian and other living creatures. For example, it is constitutionally affirmed that “the national economy is organized based on... the principles of efficiency, fairness, sustainability, environmental insight...”[1]

In addition, it is also emphasized in Law of the Republic of Indonesia Number 32 of 2009 about Environmental Protection and Management that, “a good and healthy environment is a human right of Indonesian citizens.”[2]

Besides, in Law of the Republic of Indonesia Number 41 of 1999 about Forestry, it is emphasized that

“forests, as one of the determinants of the life support system and source of people's prosperity, tend to decline in condition, therefore the existence of forests must be optimally maintained, it should be maintained sustainably, and managed with noble character, fair, wise, open-minded, professional, and accountable.”[3]

Second, the Directorate General of Land Rehabilitation and Social Forestry revealed that “the current level of damage to mangrove forests is 5.9 million hectares or around 68.8%, of which the forest area reaches 1.7 million hectares or around 44.73%. Meanwhile, the damage that occurred outside the forest area reached 4.2 million hectares or 87.5%. Other causes of damage to the mangrove forest ecosystem are due to ineffective management, weak law enforcement, and the wrong perception of mangrove forests, as well as the occurrence of damage due to the large pressure of economic activities on land such as pollution and sedimentation. In addition, changes in coastline due to the diversion of river estuaries and the occurrence of natural disasters such as landslides, floods and tsunamis also affect the damage to this ecosystem.”[4]

Meanwhile, the Ministry of Environments and Forestry of the Republic of Indonesia said "1.81 million hectares of mangroves were damaged. The main cause of the damage is human activity. Indonesia contributes 19% of the world's total mangroves. Currently, Indonesia's mangrove forests which are still in good condition cover 1.67 million hectares. "The damage to mangroves covers an area of 1.81 million hectares and the failure to rehabilitate them is mostly caused by human factors." [5]

The focus of this research discusses: how is the strategy of the local government of Takalar district in mangrove forest conservation to prevent abrasion? How is the obey the law of coastal communities in Takalar district in mangrove forest conservation? and what are the influence factors that increase community participation for mangrove forest conservation?

Takalar Regency is located in the South Sulawesi, consisting of 8 sub-districts, namely Pattallassang, South Polombangkeng, North Polombangkeng, Galesong, South Galesong, North Galesong, Mappakasunggu and Mangarabombang. The area is about 566.51 km<sup>2</sup> and has a population of ± 250,000 people. Takalar Regency is known as an area that is in a three-dimensional position, namely mountains and hills, lowlands, and expanses of the sea, from a total area of 566.51 km<sup>2</sup>, as many as 240.88 km<sup>2</sup> of which are coastal areas with a coastline length of about 74 km<sup>2</sup> [6].

## 2. METHOD

Research stage is preceded by reviewing the regulations related to the conservation of mangrove forest areas, namely the Takalar Regency Regional Regulation Number 6 of 2012 concerning the 2012-2023 Takalar Regency Spatial Plan.

Furthermore, the researcher conducted interviews with informants, namely the Headman and Secretary of the Tompotana Village, the Secretary of the Tanakeke Islands Sub-district, the Secretary of the South Galesong Sub-district, the Mappakasunggu Sub-District, and the Mangarabombang Sub-District Head of Laikang Village. It aims to find out how policies are carried out by that informant in the context of mangrove forest conservation. Interview activities were followed up by distributing questionnaires randomly to 80 community members who became as research samples located in Tompotana District, Tanakeke District, South Galesong District, Mappakasunggui District, Mangarabombang District and Laikang District, with the purpose to find out how is the obey the law of coastal communities in Takalar district in mangrove forest conservation.

The data obtained were analyzed according to the characteristics of the data concerned. For data in the form of numbers, the researcher made a table and then explained it descriptively. Analysis of research data was carried out qualitatively, namely, the data collected, both

primary and secondary data, compiled and analyzed qualitatively by interpreting, elaborating, describing, and arranging the data according to the research objectives.

## 3. RESULTS AND DISCUSSION

The results of this study indicate that: First, the strategy of the local government of Takalar district in mangrove forest conservation was carried out through (1) local regulations, namely the Takalar District Regulation Number 6 of 2012 concerning the 2012-2023 Takalar Regency Spatial Plan; (2) the movement to plant mangroves; (3) beach rehabilitation by planting mangroves. Second, the obey the law of coastal communities in Takalar Regency regarding mangrove forest conservation was still relatively low. Third, the influencing factors that increase community participation for mangrove forest conservation are local and village government policies, facilities and infrastructure, relatively limited infrastructure in coastal areas and small islands and inadequate human resources.

The three research results are discussed further in the following description:

### 3.1 *Takalar district government's strategy in mangrove forest conservation*

**First**, Takalar Regency Regional Regulation No. 6 of 2012 concerning the 2012-2023 Takalar Regency Spatial Plan, regulates some conservation areas for coastal areas and small islands, which include:

- a. Tanah Keke Island in Mappakasunggu District and Sanrobone Island in Galesong District;
- b. Coastal Ecosystem Conservation and Protection Areas in the form of coastal forest areas with mangrove forests in some parts of the Manggarabombang sub-district;
- c. Conservation and protection of coastal ecosystems in the form of coral reef protection areas in the coastal areas of Mappakasunggu and Manggarabombang area;
- d. The maritime conservation area is in the form of fishermen's settlements in the Galesong area, Galesong sub-district.[7]

The presence of this regional regulation serves as social control for the community in carrying out the conservation process of mangrove forest areas in a sustainable manner.

However, in some of these sub-districts, it turns out that the policies taken by each village government to conserve mangrove forests are different from other districts and is based on the applicable laws and regulations. For example, in Tanakeke sub-district, which includes several villages, namely Maccini Baji,

Balandatu, Tompotana, Rewataya, and Mattiro Baji village. Only the village of Rewataya has outlined the regional regulation policy in the form of a village regulation through Village Regulation Number 1 of 2013 concerning Mangrove Management. The program activities that have been prepared by the Head of subdistrict Tanakeke are: (1) encouraging the government of Maccini Baji, Balandatu, Tompotana, and Mattiro Baji Village to formulate village regulations regarding mangrove forest areas; (2) establish a mangrove forest area; (3) conduct socialization on the importance of conserving mangrove forest areas; and (4) rejuvenating, planting, and maintaining mangroves (interview result, 2020 October 17th).

For the four programs can be implemented, the village government formed a team chaired by elements of the village government to monitor and evaluate the implementation of the program by taking the following steps: (1) monitoring the activities of community members related to maintenance efforts, planting mangrove seedlings; (2) supervise the community regarding activities that can damage mangroves, and (3) record all forms of violations, perpetrators, places, and times of occurrence to be followed up by the village by providing directions, give advice not to repeat similar actions. If it is found that members of the public who have repeatedly committed violations and have been given verbal advice/reprimands in the form of directions but they still carry out activities that damage mangrove plants, they will be sanctioned a fine that they must pay compensation namely Rp100,000.00/mangrove plant trees that are damaged or make a double replacement (interview results, October 2020, 17th).

Meanwhile, in Mangarabombang sub-district, there is still a village that is currently drafting a village regulation on mangrove forest conservation, namely Laikang village. The programs that have been prepared by the Head of subdistrict Mangarabombang are: (1) encouraging the village government to formulate village regulations on mangroves (in this case Laikang village); (2) open land on the beach that will be planted with mangroves jointly by the community; (3) the government (sub-district and village) provides mangrove seedlings; (4) maintain and supervise the mangrove forest in Mangarabombang District covering an area of 6 hectares which is designated as a protected forest (interview result, 2020 October 17th).

It is different in Tompotana village, where the village government has compiled a program to protect and preserve mangrove forests, namely 1) procurement of mangrove tree seedlings, 2) planting mangrove trees in empty areas, 3) mangrove tree maintenance, 4) if there is a person cut down 1 tree, he must plant 10 trees and, 5) each community member supervises activities that can damage mangroves and, 7) provides sanctions for indiscriminate mangrove loggers (interview results, 2020 October 17th).

To implement the seven programs, Tompotana village government carried out: 1) socialization to the community about the existence of village government programs related to mangrove forest maintenance, 2) the village government-held/provided mangrove seedlings, 3) together with the community planted mangrove trees in every empty place, 4) jointly with community members supervise activities that can damage mangrove plants, and 5) jointly control the mangrove seedlings planted, if there are dead seedlings, it should be changed with new seeds (interview result, 2020 October 17th).

The most important thing in the conservation of mangrove forest areas is that there should be no conflict of interest between the development administration and law enforcement officers. Law enforcement officers (police) must work together in synergy to enforce the effectiveness of the law so that the function and purpose of law in environmental development is necessary (Kusumaatmadja, 1975, pp. 13-14).

**Second**, the movement of planting mangrove trees is carried out to prevent abrasion. Mangrove trees or forests have long been known by coastal communities that have ecological and economic functions, namely: (1) it producing wood for the construction of stilts house; (2) it is used for daily needs in household life, such as firewood and charcoal. Meanwhile, the ecological function is like a breeding ground for marine life (interview result, 2020 October 17th).

Mangrove tree has several special characteristics compared to other trees, such as: (1) it grows in certain places, such as muddy sand at the mouth of the river, bays; (2) in an ecological perspective, mangrove tree or mangrove ecosystem has different roles when compared to other trees. The mangrove forests in coastal areas and small islands have a function to inhibit the large waves into the land to prevent abrasion (interview result, 2020 October 17th).

As a form of concern for the environment, the local government of Takalar district involves residents of coastal areas and environmentalists. In addition, local governments can provide education, invite communities to share responsibilities in planning, implementing, managing, and monitoring and evaluating mangrove forest conservation in coastal areas and small islands. In this way, citizens can be empowered to undertake rehabilitation, adaptation and mitigation efforts in improving the resistance of coastal areas and small islands.

Third, beach rehabilitation by planting mangrove trees. Forest and land rehabilitation is prioritized on critical land, especially in the upper reaches of the watershed so that the function of water management and prevention of floods and droughts can be maintained optimally (Explanation of article 41 paragraph 1 of Law No. 41 of 1999 on Forestry) [3].

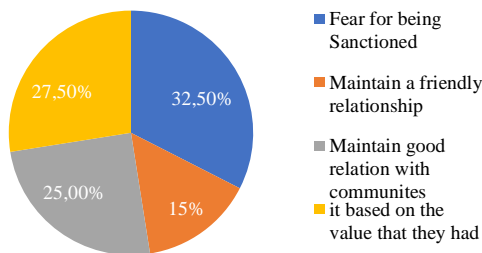
Efforts to rehabilitate mangrove areas in the coastal area of the Mappakasunggu sub-district were carried out

in collaboration with the local government of Takalar Regency, the South Sulawesi provincial government, and the Military District Command, as well as with the support of local community members (interview results, 2020, October 5th).

This is done because mangrove forests are useful for resisting sea waves (tsunami), reducing wind exposure to residents' houses/villages in coastal areas, controlling seawater intrusion, playing a role in stabilizing coastal areas, as well as being a place to live and a source of food for several animals such as fish, crabs, prawns, shellfish, and another marine biota, and a place where wildlife grows (interview result, 2020 October 5th).

### **3.2 Obey the law of coastal communities in Takalar Regency regarding mangrove forest conservation**

The level of legal awareness of the coastal and small island communities of Takalar district on mangrove forest conservation was still in the low category.



**Figure 1.** The Reason Coastal Communities Obey the Rules Issue by The Local Government on Mangrove Conservation

Based on the obey the law theory that there are three levels to see the degree of obeying the law of a person, namely: (1) compliance, which means obeying the law for fear of being sanctioned. This compliance is instrumental-motivated by a sense of fear of the consequences if someone is caught breaking the law, and vice versa. Therefore, legal non-compliance can be prevented by increasing the probability of detection of errors and the severity of sanctions if errors are detected; (2) identification, means obeying the law because to maintain good social relations. Individuals will feel motivated to align their behavior with norms and act in the interests of the group to which they belong and (3) internalization, means obeying the law because the rule of law is by the intrinsic values that they adhered to and they believe that is right to do. This obedience is normative-motivated by personal morality

and it is a belief to enforce the law. [8][9]. If obeying the law is compliance, then the degree of obeying the law is low. However, if obey the law is based on internalization, then the degree of obeying the law is high.

Obey the law is not automatically born, grows, and develops in human beings. Community obeys the law is the ideals, ideas, concepts that are obtained and embraced and internalized by the community members through the experience of the learning process by contemplating reason (buddayah, buddhi) in the form of creativity, taste, intention, word, and work. People's legal awareness is a value (culture value) about the existing law and is expected to exist, including the reaction of inner attitudes towards matters that are seen as violations of law and justice [10]. That is why, obey the law in a person involves a series of processes that occur in stages, starting from:

- a. stages of legal knowledge, namely in regards to certain behaviors regulated in written law, namely what is prohibited to do and what is allowed to be done;
- b. the stage of legal understanding, namely it concerns with the amount of information that a person has about how the law is, what its benefits and purposes are;
- c. stages of legal attitude, namely in regards to a person's tendency to accept the rule of law because it is beneficial to human life or reject the law because it is not beneficial to human life;
- d. The stages of legal behavior pattern, which concern the extent to which the rule of law applies and the extent to which society obeys it.[11]

Meanwhile, based on the theory of legal effectiveness, that "the function of the law, both as a rule and as an attitude of action or regular behavior, is to guide human behavior [12]. The problem of legal influence is not only limited to the emergence of obedience or compliance with the law but includes the total effect of the law on positive and negative attitudes or behavior. Therefore, the effectiveness of the law depends on the extent to which the rules adhere. If a rule of law is obeyed by most people, then the rule of law is effective, and vice versa, if someone obeys or disobeys a rule of law, depending on their interests, then it can be said that the law is not effective.

Things that need to be done to create obey the law in society are: first, the discipline of state leaders and state administrators in carrying out policies based on obedience to the law inherent in themselves so that abuse of duties and authority can be minimized [13]

Second, through education, training, vocational assistance in the field of law, especially environmental law. This activity is carried out because compliance with the law comes from within oneself, not force from outside. If a personal tendency to obey the law, then he

feels restless or uneasy when breaking the law. For him, there is no need for supervision or legal sanctions, because he is a supervisor for himself.

### ***3.3 Influential factors in increasing community participation for mangrove forest conservation***

The Influential factors in mangrove forests are local and village government policies, facilities and infrastructure, infrastructure in coastal areas was relatively limited and small islands and human resources were inadequate.

#### ***3.3.1 Local and village government policies***

The local government policy in this term is the Takalar Regency Regional Regulation Number 6 of 2012 about the 2012-2023 Takalar Regency Spatial Plan [7], especially regarding the provisions for mangrove forest conservation which still need to be further elaborated in village regulations. It is expected that every village in the coastal area and small islands have a village regulation on mangrove forest conservation. Now, only one village already has village regulations, namely Rewataya Village, Tanakeke District and Laikang Village, Mangarabombang District, which are currently in the process of discussing the draft village regulation.

These local regulations and village regulations on mangrove forest conservation have functioned as social engineering tools, namely establishing community obey the law regarding mangrove management in Takalar Regency to realize Takalar as a clean and environmentally friendly area.

#### ***3.3.2 Facilities and infrastructure/infrastructure in coastal areas and small islands***

Infrastructure development on the coast and small islands, such as transportation, telecommunications, electricity, clean water, education, health, and a productive economy needs to be done to realize independent community and increase the community's carrying capacity to change for the better.

#### ***3.3.3 Human Resources***

The development of healthy, intelligent, skilled and characterized, innovative, adaptive human resources is continuously fostered and improved through (1) population control, strengthening population governance; (2) strengthening the implementation of social protection; (3) increasing access and quality of health services; (4) improvement of quality education services; (5) poverty alleviation; (6) increasing competitiveness productivity; and (7) fostering obey the

law. All of this is done to create citizens of coastal communities and small islands who are advanced, superior, highly competitive, and able to compete in the 4.0 era.

The local government policy of Takalar Regency regarding mangrove forest conservation will be implemented effectively if it is supported by the following four things: first, communication; namely the delivery of information from the giver of information to the recipient of information. Thus, the content of local government policies on mangrove forest conservation is communicated by district and village government officials to the message recipient groups or targets, namely residents of coastal areas and small islands about the substance of the material/content, objectives, and policy directions from the local government through the socialization process. So that people understand the messages contained in the local government policies.

Second, resources; related to all sources that can be used to achieve goals, such as human resources for village government officials who will socialize the policy. Do they understand the content of the policy, how much budget is sufficient to convey/socialize the policy? Adequate transportation and accommodation for field officers. Facilities are related to official vehicles used in the socialization process. Adequate communication tools and proper official resident. Third, disposition; related to the commitment, integrity, behavior, and responsibilities of implementing tasks in the field, in this case, village government officials in socializing policies on mangrove forest conservation. Fourth, the bureaucratic structure is concerned with the mechanism of implementation of clear policies, in this case, technical instructions or standard operating procedures are clear, as well as uncomplicated bureaucratic structures [14].

## **4. CONCLUSION**

The conclusions from the results of this study are:

1. The strategy of the Takalar district government in mangrove forest conservation was carried out through the Takalar District Regulation No. 6 of 2012 concerning the 2012-2023 Takalar District Spatial Plan as a juridical basis for each village government to conserve mangrove forests; mangrove tree planting movement; and beach rehabilitation through the planting of mangroves.
2. Obeying the law of coastal communities in Takalar Regency regarding mangrove forest conservation was still relatively low.
3. Influence factors that increasing community participation for mangrove forest conservation were local and village government policies, facilities and infrastructure, infrastructure in coastal areas and

small islands were still relatively limited and human resources were inadequate.

#### **AUTHORS' CONTRIBUTIONS**

1. Muhammad Akbal as the head of the research implementer is responsible for coordination and research ideas and Corresponding author
2. Firman Umar as a member I, acted as the initial problem analysis at the research site and helping data analysis and finalizing article manuscripts
3. Mustari as member II acts as a data collector in the field

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#### **REFERENCES**

- [1] Constitution of the Republic of Indonesia 1945.
- [2] Law of the Republic of Indonesia Number 32 of 2009 about Environmental Protection and Management.
- [3] Law of the Republic of Indonesia Number 41 of 1999 about Forestry.
- [4] Y. Candra Ditya, "KKP | Kementerian Kelautan dan Perikanan," Indonesia, Jun. 29, 2018.
- [5] N. Aini, "Kementerian LHK Sebut 1,81 Juta Hektare Mangrove Rusak | Republika Online," Indonesia, 2018.
- [6] R. Purwanti, "Pentingnya Wanamina Sebagai Alternatif Untuk Memelihara Tambak Di Daerah Pesisir Kabupaten Takalar, Sulawesi Selatan," *Info Tek. Eboni*, vol. 15, no. 2, pp. 121–133, 2018.
- [7] The Takalar Regency Regional Regulation Number 6 of 2012 about the 2012-2023 Takalar Regency Spatial Plan.
- [8] H. C. Kelman, "Compliance, identification, and internalization three processes of attitude change," *J. Conflict Resolut.*, vol. 2, no. 1, pp. 51–60, Mar. 1958, doi: 10.1177/002200275800200106.
- [9] K. Murphy, B. Bradford, and J. Jackson, "Motivating Compliance Behavior Among Offenders: Procedural Justice or Deterrence?" *Crim. Justice Behav.*, vol. 43, no. 1, pp. 102–118, 2016, doi: 10.1177/0093854815611166.
- [10] L. Marzuki, *Siri': Bagian kesadaran hukum rakyat Bugis-Makassar: Sebuah telaah filsafat hukum*. Makassar: Hasanuddin University Press, 1995.
- [11] S. Soekanto, *Kesadaran Dan Kepatuhan Hukum*. Jakarta: Rajawali Perss, 1982.
- [12] S. Soekanto, *Efektivitas Hukum Dan Penerapan Sanksi*. Bandung: CV. Ramadja Karya, 1998.
- [13] I. Bisri, *Sistem Hukum Indonesia, Prinsip-prinsip dan implementasi Hukum di Indonesia*. Jakarta: PT. Raja Grafindo Persada, 2004.
- [14] Widodo, *Analisis Kebijakan Publik: Konsep dan Aplikasi Analisis Proses Kebijakan Publik*. Malang: Bayu Media, 2010.