



Legal Certainty and Protection for Fishponds in Coastal Erosion Areas in Semarang City

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Abstract. This study aims to analyze the legal certainty and protection of shrimp ponds in the coastal erosion area of Semarang City and identify weaknesses in regulations that guarantee land rights for affected communities. The research method used is a sociological-juridical approach with a descriptive-analytical type of research, which examines agrarian legal norms and their implementation in practice in the field. Data was obtained through interviews with pond owners, officials from the National Land Agency (BPN) of Semarang City, and local government agencies, and was supported by secondary data in the form of laws and regulations, legal literature, and policy documents related to coastal zone management. The results of the study show that coastal erosion in Semarang City, particularly in Tugu District and Tambak Lorok Village, has led to the loss of fishponds and created legal uncertainty regarding land ownership, as positive law only regulates the revocation of rights without providing protection mechanisms for bona fide owners. The applicable regulations, including the Basic Agrarian Law (UUPA) and Minister of Agrarian Affairs and Spatial Planning/National Land Agency Regulation No. 17 of 2021, have not been able to provide substantive justice and are still administrative in nature. Therefore, there is a need to reformulate agrarian law policies that are adaptive to environmental changes, establish local regulations that guarantee legal certainty and protect the rights of coastal communities, and improve legal literacy so that the principles of legal certainty, justice, and benefit can be realized in the coastal areas of Semarang City.

Keywords: Legal Protection, Land, Abrasion Areas.

1 Introduction

Land plays a very important role in the lives of Indonesians. As an agrarian country, most economic, social, and cultural activities depend on the use of land. Land is not only a place to live, but also a major source of livelihood for the community, including those who manage fish ponds in coastal areas. In the context of national law, land also has a legal dimension that is strictly regulated in the Basic Agrarian Law (UUPA) Number 5 of 1960, which states that the earth, water, and natural resources contained therein are controlled by the state and utilized for the greatest prosperity of the people. One form of land use commonly found in coastal areas is salt ponds [1]. Salt ponds are a major source of livelihood for coastal communities that rely on fishing and brackish water aquaculture. In the city of Semarang, especially in coastal areas such as Tugu District and Tambak Lorok Village, salt marshes play an important role in supporting the local economy [2]. However, salt marshes in coastal areas are highly vulnerable to natural disasters, one of which is abrasion.

Abrasion is the process of erosion of land by ocean waves, coastal currents, and tides, causing the coastline to recede. This phenomenon not only damages coastal ecosystems, but also results in the loss of productive land, including community-owned fish ponds. In the city of Semarang, abrasion has become a serious problem that occurs

almost every year. Based on data from the Nusantara Nature Conservation Foundation, Tugu District is one of the areas most severely affected by abrasion, with hundreds of hectares of land lost. The impact of coastal erosion is not only ecological, but also raises legal and social issues [3]. The loss of farmland due to erosion causes owners to lose their rights to the land, both physically and legally. In Indonesian agrarian law, when land is considered destroyed due to natural changes such as erosion, the rights to that land are also considered extinguished. This creates legal uncertainty for communities that have depended on the land as a source of livelihood [4].

The problem is further complicated by the fact that, to date, there are no comprehensive regulations regarding the legal status of land lost due to abrasion [5]. The Basic Agrarian Law and its derivative regulations, such as Government Regulation No. 24 of 1997 concerning Land Registration, do not explicitly regulate the protection of land destroyed by natural disasters. As a result, owners of tambak land who have lost their land due to abrasion do not have a strong legal basis for obtaining protection or compensation. The government has indeed established Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 17 of 2021 concerning Procedures for Determining Destroyed Land [6]. However, this regulation focuses more on the administrative mechanism for determining the status of destroyed land, rather than on protecting or restoring the rights of affected landowners. In this context, legal certainty for coastal communities remains weak because existing regulations do not accommodate the dimensions of social justice and economic protection for communities who have lost their land.

The city of Semarang, as a coastal area, faces major challenges in managing the increasing risk of abrasion due to climate change and human activities. Industrial activities, sand mining, and the reduction of mangrove vegetation have accelerated the rate of erosion [7]. These conditions not only threaten the coastal ecosystem but also exacerbate the uncertainty of the status of community-owned fishpond land. When fishpond land is lost to erosion, owners lose their rights to the land and have no legal mechanism to seek protection [8]. From an agrarian law perspective, legal certainty regarding land rights is a fundamental principle. Legal certainty is necessary so that the community has guarantees regarding the control, use, and sustainable utilization of land [9]. However, in the context of abrasion, this principle often does not work because positive law has not been able to adapt to the ever-changing dynamics of the environment. The loss of land due to erosion not only eliminates ownership rights, but also eliminates the livelihoods of coastal communities [10].

This problem creates a dilemma between the principles of legal certainty and justice. Normatively, land that is destroyed by erosion is considered to no longer have any legal object, so that land rights are extinguished. However, sociologically, communities affected by erosion still have interests that need to be protected [11]. Therefore, a reconstruction of agrarian law that is more responsive to natural disasters and environmental change is needed, so that the law does not merely enforce formal rules, but also guarantees substantive justice for citizens.

In the context of Semarang City, the issue of legal protection for tidal flats affected by abrasion is becoming increasingly urgent. In addition to losing land, many coastal communities have lost their homes, livelihoods, and economic access [12]. The local government has made several mitigation efforts, such as planting mangroves and building sea walls, but these efforts are physical and technical in nature and do not address the legal protection of the land rights of the affected communities [13].

Administrative land issues have also exacerbated the situation. Many pond owners in the coastal areas of Semarang do not have land certificates or only have physical evidence of ownership without formal legality from the National Land Agency (BPN). When erosion occurs and land is lost, they find it difficult to prove ownership, so they cannot claim damages or compensation [14]. This shows the weakness of the land registration system in coastal areas prone to abrasion. Legal certainty for pond owners in areas prone to abrasion should not only be measured by the existence of certificates, but also by the legal protection provided by the state to people who are acting in good faith and have legally controlled the land based on customs and traditions. The state has a constitutional obligation to protect the rights of citizens to land, as affirmed in Article 33 paragraph (3) of the 1945 Constitution and in the principle of social justice in Pancasila [15].

From a modern legal perspective, protection of land rights cannot be separated from the principle of environmental sustainability. Coastal erosion is not only a land law issue, but also a spatial planning and environmental management issue. Therefore, efforts to provide legal certainty for shrimp ponds affected by erosion must involve a multidisciplinary approach between agrarian law, environmental law, and sustainable development policies. In addition to formal legal protection, the social aspects of coastal communities must also be taken into consideration. The loss of shrimp ponds means the loss of livelihoods, which ultimately leads to poverty and social inequality. The government needs to ensure that the legal policies it formulates not only guarantee land rights, but also provide social and economic security for communities affected by erosion.

This situation requires the government to take an active role in formulating fair and adaptive legal policies. The government must be able to provide compensation, relocation, or even replacement land for communities who have

lost their land due to abrasion. This is important so that coastal communities are not trapped in prolonged legal uncertainty and lose trust in the state. Within the national legal framework, strengthening the protection of rights to tambak land can be done through the revision of agrarian regulations and the drafting of regional regulations that specifically regulate the protection of coastal land from abrasion. These regulations can include mechanisms for recognizing rights, recording affected land, and providing legal assistance to communities who have lost their land.

Legal certainty can also be achieved by increasing the capacity of land agencies to digitally document and map coastal areas. With accurate spatial maps, the government can better mitigate and manage spatial planning, thereby reducing the potential for conflict and legal uncertainty over land status due to erosion. In addition, legal protection for tambak land must be directed towards developing laws that are adaptive to climate change. Agrarian laws that are still oriented towards static ownership need to be updated in order to be able to face the challenges of a dynamic environment. The law must be able to provide protection not only for objects (land) but also for the socio-economic rights attached to land ownership.

Strengthening legal literacy among coastal communities is also an important factor. Many pond owners do not understand their rights and obligations, making it easy for them to lose their rights due to a lack of legal information. Dissemination of information on legal protection, land certification mechanisms, and abrasion management needs to be carried out continuously through collaboration between the government, academics, and the community. Based on the above description, it can be concluded that the issue of legal certainty and protection of pond land in the coastal abrasion area of Semarang City is a multidimensional problem. Synergy between agrarian law reform, strengthening spatial planning policies, and community empowerment is needed to achieve balanced legal certainty and justice. Thus, the law is expected to not only serve as an administrative instrument but also as a tool for protection and empowerment for coastal communities affected by erosion.

2 Method

The research method used in this study is a sociological-legal approach with a descriptive-analytical type of research [16]. This approach was chosen because the research not only examines the legal norms that regulate the protection and legal certainty of shrimp ponds affected by abrasion, but also explores how these legal provisions are applied in practice in the coastal areas of Semarang City. The research data was obtained from two sources, namely primary data collected through interviews with shrimp farm owners, officials from the National Land Agency (BPN) of Semarang City, and relevant local government agencies, as well as secondary data including laws and regulations, legal literature, scientific journals, and policy documents related to agrarian affairs and coastal zone management [17]. Data analysis was conducted qualitatively, namely by describing, interpreting, and connecting legal theory with empirical conditions in the field to obtain a comprehensive picture of the effectiveness of legal protection and the level of certainty of rights to fishpond land in the coastal erosion area of Semarang City.

3 Result And Discussion

The results of the study show that abrasion occurring in the coastal areas of Semarang City has caused significant changes to the physical and legal conditions of community fishponds. Abrasion occurs every year, especially in Tugu District and Tambak Lorok Village, causing a reduction in the area of fishponds, the loss of land boundaries, and even the destruction of previously registered fishponds [18]. This situation has a direct impact on the community's property rights, as they have lost their land rights due to the transformation of land into sea water.

Based on field data, coastal communities that depend on pond farming for their livelihoods have suffered huge losses. Many farmers have lost their main source of livelihood as their ponds have been swallowed up by erosion. In addition to losing their land, they have also lost supporting infrastructure such as water channels, pond embankments, and production facilities [19]. These economic impacts have given rise to new social problems in the form of declining welfare, unemployment, and migration of residents from coastal areas to urban areas.

Legally, the status of land lost to abrasion is unclear. Based on the provisions of Article 27 of the Basic Agrarian Law (UUPA), land ownership rights are revoked if the land is destroyed. This means that when land is covered by seawater or lost due to abrasion, ownership rights to that land are considered to have ended legally. As a result, the community loses the legal basis for their land, and the state has no obligation to provide direct compensation for the destroyed land [20].

Interviews with officials from the National Land Agency (BPN) in Semarang show that, to date, there is no clear mechanism for recording or following up on shrimp farm land lost due to abrasion. Lost land can no longer be included in active land maps, so its status is declared inactive or removed from the administrative system [21]. However, in practice, this removal often causes confusion for people who previously held title deeds.

Many coastal communities feel aggrieved because their land certificates have become worthless after erosion occurred. They believe that the state should still provide legal protection because the loss of land was not caused by their mistakes or negligence, but rather by natural disasters [22]. The lack of clarity regarding the mechanism for compensation or recognition of rights to lost shrimp farm land has created a sense of injustice among coastal communities.

Based on the results of legal document research, it was found that Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of the National Land Agency Number 17 of 2021 concerning Procedures for Determining Destroyed Land has not provided a substantive solution to the problem of land abrasion. This regulation only regulates the administrative procedures for determining destroyed land without regulating the legal consequences for rights holders [23]. Thus, legal protection for communities affected by erosion remains formal and does not guarantee certainty or substantive justice.

From a regional policy perspective, the Semarang City Government has made various efforts to mitigate erosion, such as building sea walls, planting mangroves, and implementing coastal conservation programs. However, this study found that these policies focus more on the physical aspects of the environment and do not address the dimension of legal protection of community land [24]. There are no compensation, relocation, or indemnity programs based on land law.

Interviews with coastal communities show that most pond landowners do not have valid title deeds. They only control the land through hereditary succession without formal legality. When erosion occurs, they have no legal basis to file claims or seek compensation. This shows weak legal awareness and low community access to the land registration process.

The data also shows that some of the pond areas in coastal regions overlap with state-owned land or reclaimed land [25]. As a result, many people are unable to obtain certificates due to the unclear status of the land. This situation exacerbates legal uncertainty, because when erosion occurs, neither the state nor the community can determine with certainty who has the legal rights to the land.

In land administration practice, the National Land Agency (BPN) can only process requests for the removal of rights if the certificate holder voluntarily submits a request after field verification. However, many communities do not understand this procedure, resulting in a vacuum in land administration in areas affected by erosion. Land that has been physically lost remains recorded in the system but cannot be identified in the field [26].

From the results of the analysis, this study found an imbalance between formal legal certainty and social justice. Positive law asserts that destroyed land results in the removal of ownership rights, but on the other hand, people who lose land due to erosion do not receive protection or compensation [27]. This condition shows that agrarian law is not yet oriented towards substantive justice and still places coastal communities in a weak position..

In the context of distributive justice, the state should pay more attention to coastal communities affected by abrasion. They are a vulnerable group whose economic rights depend on the existence of salt ponds. When the land is lost, the state has a moral and constitutional responsibility to provide legal protection, either through compensation policies, relocation, or strengthening rights to replacement land [28].

This study also shows that existing laws and regulations are still sectoral in nature. Agrarian law, environmental law, and spatial planning law have not been integrated in dealing with erosion cases. As a result, inter-agency policies are often not synchronized. For example, the Environmental Agency emphasizes ecosystem preservation, while the National Land Agency focuses on administrative aspects without considering the socio-economic impact on the community. On the other hand, weak coordination between agencies has slowed down the process of addressing erosion from a legal perspective. There is no integrated data between the Marine and Fisheries Agency, the National Land Agency, and local governments regarding the area and location of lost fishpond land. This makes it difficult to accurately verify and determine the legal status of land affected by erosion.

From field observations, it appears that some areas of ponds that were previously affected by abrasion have now reappeared due to natural sedimentation or artificial reclamation. However, the reappearance of this land often causes new disputes, as there is no legal mechanism governing the restoration of rights to land that had been lost. In some cases, reclaimed land is even used by other parties without the knowledge of the original owners. This study assesses that the absence of legal instruments regulating the protection of land rights due to abrasion can lead to inequality of ownership in the future. Land that was once owned by small communities has the potential to be taken over by

corporations or parties with economic and political power, especially if reclamation projects are carried out without a legal basis that is fair to the affected communities.

Based on the results of normative analysis, the principle of legal certainty in the Basic Agrarian Law should not only be interpreted as administrative certainty, but also certainty regarding the protection of citizens' rights against the risk of land loss due to natural factors. Thus, it is necessary to reinterpret the concept of "destroyed land" so as not to negate the state's responsibility to protect rights holders. This study also found the need to reformulate agrarian law policies that are adaptive to environmental changes. In the context of abrasion, the law should not stop at revoking land rights, but should also regulate compensation mechanisms, disaster mitigation-based spatial planning, and the reconstruction of land laws in coastal areas.

In terms of implementation, efforts to provide legal certainty for pond land can begin with the establishment of local regulations (Perda) on coastal land protection. These local regulations can regulate the mapping of erosion risks, the protection of community rights, and the provision of incentives for conservation activities. Through this local policy, the city of Semarang can become a model for more equitable and sustainable coastal law enforcement. Overall, the results of the study show that the issue of legal certainty and protection of tambak land in the coastal erosion area of Semarang City is a multidimensional problem that requires inter-sectoral synergy. There is a need for agricultural law reforms that are more responsive to environmental disasters, strengthening the role of local government in protecting land rights, and empowering coastal communities through legal literacy and active participation. Without these measures, the legal certainty that coastal communities expect will remain a normative ideal that is difficult to achieve in practice.

4 Conclusion

Based on the results of the study, it can be concluded that the issue of legal certainty and protection of shrimp ponds in coastal erosion areas in Semarang City is a complex issue that reflects the imbalance between positive legal norms and the social reality of coastal communities. The loss of shrimp ponds due to erosion has resulted in the legal elimination of land rights, but this has not been followed by adequate protection and compensation mechanisms for rights holders. Existing regulations, such as the Basic Agrarian Law (UUPA) and Minister of Agrarian Affairs and Spatial Planning/National Land Agency Regulation No. 17 of 2021, are still administrative in nature and do not yet accommodate substantive justice for communities who have lost their land due to natural factors. Therefore, there is a need for agrarian law reforms that are more adaptive to environmental changes, as well as synergy between the central government, local governments, and land agencies to formulate equitable coastal land protection policies. The government must also strengthen the role of the National Land Agency (BPN) in digital mapping of erosion areas, improve community legal literacy, and formulate local regulations that guarantee legal certainty and protection for affected shrimp farm landowners, so that the principles of legal certainty, justice, and benefit can be realized in the coastal areas of Semarang City.

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