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# CONVERSION OF TANAH SANGKOL AND ENVIRONMENTAL DAMAGE IN SUMENEP REGENCY

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**Abstract**
This study aims to analyse the impact of tanah sangkol conversion on environmental damage in Sumenep Regency, Madura, and to understand the social factors that influence changes in land function. Tanah Sangkol conversion, generally in the form of conversion of agricultural land to land for settlements or the shrimp farming industry, is an important issue that impacts environmental quality and community welfare. This research methodology uses a qualitative approach with data collection techniques through in-depth interviews and participatory observation. The study results indicate that tanah sangkol conversion in Sumenep has caused soil quality degradation, reduced productive agricultural areas, and decreased biodiversity. Social factors influencing land conversion include increased demand for residential and industrial land, economic pressures, and weak implementation of environmental protection policies. In addition, uncertainty in land use regulations has worsened environmental conditions in the Sumenep area. The contribution of this study to sociology is to provide an understanding of the relationship between social, economic, and environmental dynamics in the context of land conversion. This study also contributes to the study of social change related to natural resource management and its impacts on local communities, especially in efforts to achieve sustainable development. Thus, this research can be a reference for more holistic land and environmental management policies in rural areas.

**Keywords: Tanah Sangkol, Land Conversion, Environmental Damage**

## INTRODUCTION

Tanah Sangkol is a term used by the Sumenep community, which refers to family inheritance land (A Zahid, Chakim, and Ayu 2024). ). Sangkol land has a long historical space from the ancestors as land to support economic life. Sangkol land is not only a supporter of the economy but also a collective identity and cultural heritage. Tanah Sangkol has a sacred link between the deceased - the nuclear family - and the living family as an emotional bond (Dzulkarnain 2024). ). However, with the development and development policies, sangkol land has experienced a conversion that leads to the conversion of land for the interests of the shrimp pond industry. This change triggers complex environmental problems and damages the natural ecosystem of Sumenep (Umam 2020).

Environmental damage due to the conversion of sangkol land is seen in seawater pollution and a decrease in soil quality in several areas in Sumenep Regency. The loss of agricultural land, dry fields, and the coastline has eroded the cultural ecosystem of the Sumenep community. The land the people of Sumenep functioned as agricultural land for rice, green beans, and some tobacco, and plantations with palm sugar and coconut production experienced a shift that had an impact on the nature and characteristics of the people of Sumenep. The phenomenon of mushrooming grocery stores also impacts the conversion of sangkol land that occurred without being realized. The people of Sumenep lost their source of livelihood and their attachment to the traditions and land that have been an important part of their identity.

The ecological damage that occurred in the Sumenep community, as reported by the Harian Radar Madura, that in 2022, there were 49 villages in 16 sub-districts in Sumenep Regency experiencing a drought emergency, one of which was caused by the conversion of land from agriculture to housing, from dry fields and coastal areas to oil and gas land and shrimp ponds. This was confirmed by the Regency Government intending to revise the Regional Regulation (Perda) concerning the Regional Spatial Planning (RTRW) Number 12 of 2013 to provide space for the expansion of phosphate mining areas from 8 sub-districts to 18 sub-districts. The series of problems above were added to by the loss of land in rural areas that began to emerge; from temporary field data, there were around 15 hectares (although it is not clear whether this figure could be more or even reach 25 hectares) of land changing ownership (A. Dardiri Zubairi 2023).

The lands that were lost to shrimp ponds were managed mainly by capital owners who were indeed not native to Sumenep themselves. Based on data from the Investment

and Integrated One-Stop Service Agency (DPMPTSP) in 2019, an area of 117,888 M2 (11.87 hectares) in the Lombang area and 108.2 hectares in total in Sumenep Regency, almost all have an impact on the environment (Umam 2022). As a result of this conversion, the cultural and spiritual values associated with tanah sangkol have also begun to fade. Previously, this land was considered agricultural land and a place that had spiritual and sacred meaning for the local community. The loss of these landmarks is a shift in the way people view land and natural resources, where commercial and economic aspects begin to dominate, replacing the sacred meaning and social values that have long been maintained.

Similar conditions also occur in large countries; the conversion of natural landscapes into industrial and urban areas has been associated with increasing levels of pollution and habitat destruction. For example, Akay highlights that transforming fertile land into built environments increases waste production and environmental pollution, underscoring the urgent need for sustainable land management practices to mitigate these impacts (Akay, 2024). ). Similarly, Yan et al. found a positive correlation between industrial land supply and environmental pollution in urban China, indicating that industrial expansion often exacerbates ecological degradation (Yan et al., 2022). This trend is not unique to China; studies from regions including Ghana and Tanzania have shown that industrial activities contribute significantly to deforestation and land degradation, necessitating effective monitoring and conservation strategies (Appiah, 2024; Utonga et al., 2023).

As Abebe discusses, farmers' positive attitudes towards conservation technologies can lead to better sustainable practices, which are essential for maintaining soil health and productivity in agricultural settings (Abebe, 2022). Furthermore, the integration of agroforestry and conservation agriculture has been identified as a viable strategy to enhance soil conservation and promote biodiversity (Kaur, 2023; Dev et al., 2023). These practices not only help mitigate the impacts of industrialization but also support the restoration of degraded lands, as emphasized by Young et al., who advocate ecological restoration as a means to restore and conserve biodiversity (Young et al., 2022).

Furthermore, the role of policy and community engagement in land conservation cannot be overstated. Effective land use planning and regulatory frameworks are essential to promote sustainable practices and minimize environmental damage. For example, Wu and Zhu highlight the importance of air pollution control measures in influencing industrial land leasing behavior, suggesting that regulatory incentives can play a

significant role in environmental protection (Wu & Zhu, 2021). This community-centered approach is in line with Carvalho's findings, which argue that understanding land use dynamics is essential to developing effective policies aimed at environmental conservation (Carvalho, 2023).

Environmental damage caused by land conversion is not only felt by the Sumenep community. This is evidenced by several studies in various countries around the world, including the impacts caused by air pollution, waste, deforestation, and culture. As happened in Sumenep, the sacredness of the tanah sangkol and the mysticism of the land, which is the identity of the Sumenep community, will be lost in the face of change. This problem will have an impact on the social ecology of the Sumenep community, and the nature, culture, and social relations of the Sumenep community will be at stake because of various conditions that occur today. In fact, land for the Sumenep community has a complex meaning, not only in the form of material or capital, but the land has a relationship with humans as a manifestation of their ancestors.

In this study, there is a novelty that we want to reveal; specifically, this study will explore how the conversion of tanah sangkol impacts the sustainability of local ecosystems and community life and how the community responds to these changes. Using a participatory approach, this study will involve local communities to gain a direct perspective on the impacts and mitigation efforts that can be made. In addition, this study will also explore the policies that have been implemented by the government and assess their effectiveness in protecting tanah sangkol and the environment in Sumenep Regency. Because in conditions of competition for land and resource rights, demands for formal and legal recognition for sovereignty over ancestral lands will never subside.

In an increasingly dynamic and uncertain political and economic situation, local governments tend to be unsympathetic to demands for increased recognition of customary human rights, especially among politically marginal constituents, as in the Soeharto era, local and customary claims to land were considered to be in conflict with economic development and the needs of the wider community, especially those formulated by representatives of state power (McWilliam 2006).

## METHODS

This study uses a qualitative research method (Creswell 2016) with a case study approach (Ridlo 2023), to deeply understand the case in Sumenep Regency regarding the conversion of tanah sangkol and its impact on environmental damage. This approach was

chosen because it allows researchers to explore the issue holistically by involving various perspectives and experiences from the affected community. The focus of the study is to explore how changes in the function of tanah sangkol affect the environment and the socio-cultural life of the local community. The subjects of this study were local communities who were directly affected, community leaders, farmers, and environmental activists such as Barisan Ajega Tana Na' Poto (BATAN) as follows;

| Research Subject | Informant Initials | Total |
|---|---|---|
| Public figure | AD, AF dan A | 3 |
| Farmers and Society | M, S, AA, R, D, B, dll | 10 |
| Barisan Ajege Tanah Na'poto (BATAN) | R, D, DZ, M, dll | 15 |

Data collection was carried out using in-depth interview techniques with local communities based on the results of data collected from observations and interviews, which were then classified according to the focus of the research. This is done by considering the focus and theme. Data analysis consists of three stages based on grouping the interview results from each source. Second, data restoration is carried out by the research team recording how the re-interview was conducted; the data sources used for triangulation and changes made to the transcripts or observation notes.

Then, there is the description of the data, where the restoration results are grouped into main themes that reflect the central issues of the research. Some main themes presented in land conversion and environmental damage research are the social impact of land conversion, pollution, and environmental degradation. Then, the presentation of data is again arranged by referring to the answers to the questions asked. Data description is carried out to show the source's point of view on the research topic. At the same time, data interpretation is carried out by considering various aspects and contexts.

## RESULTS AND DISCUSSION

### Results

### Dialectics of the Problem of Tanah Sangkol Conversion in Global Space

Geographically, Sumenep Regency is located at the easternmost tip of Madura

Island. Its geographical position is between 113 degrees 32'-116 degrees 16' East Longitude and 4 degrees 55'-7 degrees 24' South Latitude. It borders directly with the Java Sea to the north, the Madura Strait to the south, the Java Sea and Flores to the east, and Pamekasan Regency to the west. The regency, which is administratively part of East Java Province, consists of 27 sub-districts, 19 mainland sub-districts, 8 island sub-districts, and 332 villages (Halim 2020). In addition, Sumenep Regency also has at least 126 islands, the most compared to the other three regencies on Madura Island, namely Pamekasan, Sampang, and Bangkalan.

On the other hand, the area of agricultural land in Sumenep Regency in 2021 reached 169,809 ha with relatively different types of plants in each sub-district. However, over time, some of the agricultural land that is classified as productive has begun to experience narrowing. One of the crucial factors in this case is the conversion of land functions. Land that was originally used for agriculture or gardening has changed its function to non-agriculture. Some areas in Sumenep Regency, for example, such as Gapura, Dungkek, Batuputih, and Batang-batang Districts, have now undergone some kind of conversion, from agricultural land to shrimp ponds (Abidin, I., & Efendi 2022). There are several causes of the high conversion of land functions in Sumenep Regency. Among them are the problem of low levels of profit from farming in rice fields and weak enforcement of spatial planning laws.

The complexity of the problems faced by the Sumenep community in the issue of land conversion also occurs in various large countries such as Brazil, the expansion of land conversion made for agriculture in the Southern Amazon forest environment by deforestation has an impact on reducing forest regrowth and habitat fragmentation (Morton et al., 2006). The conversion carried out resulted in a decrease in forest areas with various impacts, such as the extinction of animal species in it, because the damaged ecosystem has an impact on their survival (Boron et al., 2018; Boron et al., 2016). Conversion of agricultural land in tropical countries often causes the loss of local species and a decrease in ecosystem function, which is very important for environmental balance (Paz et al., 2020).

Meanwhile, in African countries, such as Burkina Faso, rapid population growth and demand for agricultural land have led to increasing pressure on natural resources and natural vegetation (Knauer et al., 2017). Research shows that the expansion of agricultural land in this area threatens the existence of remaining natural vegetation and can cause wider ecosystem damage (Knauer et al., 2017). In China, economic policies encourage

land conversion from forest to agricultural land (Hu et al., 2019). Forest land converted into agricultural land has an impact on local ecosystems and reduces the land's ability to store carbon (Reichenbach et al., 2023).

Global environmental issues are more about the conversion of forest land to agriculture, but different in the Sumenep community. In fact, agricultural land is converted into shrimp ponds and development changes that have no benefit to the sustainability of the natural ecology. Although this is based on the issue of farmer welfare which is the main trigger for land conversion, for example, it allows them to carry out land sales transactions to certain parties who are indeed targeting productive land in Sumenep Regency.

…uncertain agricultural yields, so trying to divert to other businesses…. (Informant: M).

They assume that the money from the sale of the land can boost their welfare. This is what then gives rise to several negative implications. Such as the status of the land which is in fact their ancestral heritage and the proceeds from the sale of land spent on non-productive assets such as rehabilitating houses, buying goods not because of their functional value, but because of the sign value for social status, and so on. As a result, agricultural land is actually getting narrower in a relatively long time. Meanwhile, for the first case, the Madurese people generally have their own terminology in viewing the land inherited from their ancestors, namely the term tanah sangkol.

A Dardiri Zubairi, for example, in Madura Agrarian Politics (2023) explains that tanah sangkol is not just a matter of inherited land that is easily bought and sold. More than that, tanah sangkol is a locus, a place where the space of the past and the present meets, a place where present and past owners unite their spiritual ties, a place where the present generation and their ancestors look for traces to remember each other. Therefore, according to Dardiri, tanah sangkol is not just a meaningless mound of land (A. Dardiri Zubairi 2023).

Because tanah sangkol is one of the connecting media between them and their ancestors, caring for and preserving it is something that cannot be postponed. Several methods are used so that tanah sangkol can be well maintained and preserved, including plowing the land so that it becomes fertile, then planting various types of plants: coconut, banana, corn, peanuts, and various types of other secondary crops. In addition to this method, the Madurese people generally have their own concept when they are unable to care for their land, namely by using paron (Syafriani and Hidayat 2024). This concept

refers to the condition when the landowner does not have time to farm, usually they will look for neighbors or relatives who are willing to plant their land, then the results are divided equally, including the agricultural costs which are also calculated.

…. I don't have the time and energy to take care of it, so I rent it out….. (Informant: D).

The way the Sumenep community maintains their land, one of which is through sacredness and the paparon method. This is also done by several countries in maintaining their land such as. One prominent example is the practice of the Māori community in New Zealand, where they have a deep connection with the land they inhabit. In this context, myths that link individual health to soil health serve as reminders of the importance of protecting the environment. Research shows that Māori identification with the land strengthens cultural connections and contributes to their overall health and well-being (Mark et al., 2022). In this way, myths serve as a tool to encourage land conservation and protection.

In Estonia, agrarian rituals related to sacred natural sites also show how myths can function to protect the land. Local communities associate spiritual values with certain places, which helps maintain the integrity of the ecosystem and prevents land conversion for commercial purposes (Heinapuu, 2016). Mentawai traditions rooted in family stories serve as the basis for sustainable land management. Myths related to land and land use help communities maintain their land rights and prevent detrimental conversion (Elfiondri et al., 2018). Research shows that ignoring this tradition can lead to social conflict and ineffective development, highlighting the importance of maintaining traditional beliefs and practices in resource management.

The above reality indicates that maintaining the sovereignty of tanah sangkol seems to have become an ingrained ethos in the perspective of the cultural wisdom of the Madurese people. The reason is because the Madurese people culturally greatly appreciate the results of their parents' hard work that they receive as an inheritance. In addition, apart from being considered to contain a very sublime sacredness, tanah sangkol for some Madurese people has become the only place to meet their living needs. For them, the land has given everything, especially their lives which are very dependent and supported predominantly by the land.

It is not surprising that the Madurese people have a kind of principle that if they sell their land to foreigners, it is the same as selling their self-esteem (Syamsuddin 2019). As a result, this principle has succeeded in leading them to a firm commitment to always

protect their ancestral land from various outside parties, especially foreign investors. One of them is by holding resistance to anyone who is considered to be taking over their land. One of the resistances or efforts to protect tanah sangkol that has been in the spotlight for the past few years is what was done by some of the Sumenep community who are members of the BATAN alliance (Barisan Ajaga Tana Ajaga Na'Poto). Through various cultural studies, the BATAN movement actively voices the importance of maintaining the philosophy and sacredness of tanah sangkol.

The large number of land conversions in several sub-districts in Sumenep indicates that there has been a kind of collective identity shift experienced by its citizens. This is because land for the people of Sumenep has become a meaningful entity. Land is not just a place to live and a source of livelihood. More than that, land is believed to be able to connect them with their ancestors, a place to greet each other within the framework of the cultural wisdom of the Sumenep people (Hidayat, Haris, and Siswanto 2023).

In addition, religious factors seem to have provided a kind of strong theological-ethical foundation for Madurese people in general and Sumenep in particular to strive to make the best use of the land, water, and natural resources around them as gifts from Allah SWT (A Zahid et al. 2024). Madurese people in general will be very careful in protecting whatever belongs to them and the property of others. They have a personality principle known as "Lebbi bagus pote tolang, etembang pote mata" which means 'better to die (white bones), than to be ashamed (white eyes)(Susanto 2007). This principle indicates that self-esteem is very important in the lives of Madurese people. They never want to be insulted, degraded, or even embarrassed (Setiawan 2019). At this point, tanah sangkol, in addition to containing noble values and sublime dimensions of sacredness, also becomes one of the main sources of conflict.

One recommendation is that land not be converted as done by the Sumenep community by buying back their land that has been purchased by investors. Like the experience of the residents of Lapa Taman village, Dungkek District, which was recorded by Dardiri in one of his writings, "Lapa Taman: Taman Para Jaga Kedaulatan Tanah". According to Dardiri's notes, the rejection carried out by the Lapa Taman residents came from their bitter experiences in the past who had to languish under the hegemony of investors. They have an extraordinary awareness that the land they live on is for their children and grandchildren, not foreigners who will later oppress them. They do not want their dignity to be trampled on by investors. Therefore, they are willing to reclaim their land by buying it back.

They finally managed to control land sovereignty. In addition, the efforts made were the audience held on April 5, 2016 with the Regent of Sumenep which resulted in four consensuses. First, the local government will put up a kind of sign prohibiting activities without a permit, such as in Lombang Village, Batang-batang District, Romben Barat Village and Lapa Daja, Dungkek District, and other villages. Second, the local government will conduct a legal study to impose a moratorium on ponds and other investment activities that harm the community and damage the environment. Third, the local government will protect productive agricultural and plantation land, green areas and protected areas, and so on in the Draft Regional Regulation on the Detailed Regional Planning Plan which is currently being discussed. Finally, the local government together with community organizations will conduct socialization to residents regarding the importance of maintaining land.

Of course, in addition to the four agreements of the audience above, it is a constitutional recommendation submitted by a group of youth Batan also urged various local agencies in charge of the environmental sector to continue guerrilla warfare in rejecting industrialization on tanah sangkol which can actually damage the environment and cause misery to local communities. The reality of land loss in several areas in Indonesia will certainly give rise to protests and resistance, but protests are often quelled by the police or local authorities by beating and arresting them. However, protests and various kinds of rejections of the government need to be transmitted to the next generation through various public awareness agendas that are organized structurally and culturally.

## Discussion

### Environmental Impacts Due to Tanah Sangkol Conversion

#### Sea Water Pollution

In practice, shrimp pond industrialization has changed the landscape of coastal areas and given rise to various acute ecological problems. The rapid development of shrimp pond industrialization in Sumenep Regency has certainly raised various fears of environmental pollution. As happened in Lombang Village, Dungkek District, the people in the village began to feel the environmental impacts due to the presence of shrimp ponds along the coast, namely seawater pollution by pond liquid waste, which causes an unpleasant and dirty odour (Syah and Efendy 2011). In addition, physically, Lombang Beach, which is a tourist area, was also affected, where the white sand, which was initially an attraction for tourists, turned black and emitted foam that caused an unpleasant odour

(Isman, H., Rupiwardani, I., & Sari 2022). This is because wastewater from shrimp farming in ponds contains organic materials that can affect the quality of the coastal water environment.

Environmental damage and pollution caused by the shrimp pond industry are felt by the Sumenep community and occur in large countries, especially in developing countries. According to several studies, the impact of shrimp farming is an increase in the nitrogen and phosphorus constellation in the waters, resulting in eutrophication. Research conducted in Mexico showed that the organic nitrogen constellation in estuaries that received waste from shrimp ponds increased significantly, reflecting the accumulation of organic waste from shrimp pond effluent, a serious problem in aquatic environmental management. This waste comes from uneaten feed and the excretion of the shrimp itself, which contributes to increased nitrogen in the sediment (Colette et al., 2023; Qin et al., 2021).

Not only seawater pollution, beach sand, for example, of course, at a further stage will also affect the ecosystem of marine life, such as fish, coral reefs, shellfish, oysters, and various other types of marine biota. Marine biota, on the one hand, is a source of livelihood for coastal communities, where those primarily fishermen are accustomed to looking for fish to be distributed on the market (Matroni 2020). In practice, after the establishment of shrimp pond industrialization, fishermen's catches became small. In the context of threats to marine biota, shrimp ponds and salt ponds in Gersik Putih Village, Gapura District, have also become one of the industrial areas that have had many destructive impacts on the marine biota ecosystem. Most people, especially women, in the village depend on their daily lives to find fish, shellfish, oysters, and so on to be sold or consumed personally.

However, large-scale shrimp farming indicates consequences that are not environmentally friendly. In practice, many sacrifice productive lands and even damage marine ecosystems, such as mangroves, that play a significant role in preventing abrasion due to currents and waves and nutrient source suppliers for the environment. Therefore, the conversion of land around coastal areas has decreased the decrease of mangrove forests, leaving nothing at all. This is because the space for shrimp ponds takes up much land, so the surrounding mangrove forests are automatically cleared.

Not only mangrove forests, the industrialization of shrimp ponds in several areas in Sumenep Regency is also located adjacent to rice fields owned by the surrounding community. In Andulang Village, for example, shrimp ponds have drawn protests from

local residents. This is because their rice fields are very close to the ponds. The protest occurred because irrigation to their rice fields was blocked. After all, they were surrounded by ponds (Mihrob 2021). Before the ponds existed, the rice fields were productive land for farming, paloijo, etc. It is doubtful that irrigation to the rice fields around the ponds will run smoothly. From here, the people of Andulang Village felt that shrimp ponds were not very environmentally friendly (Murtadho 2021).

**Loss of Soil Fertility**

Andulang Village is one of the areas where shrimp pond industrialization is taking place massively. The proof is that 20 hectares of productive agricultural land have been converted into shrimp ponds (Murtadho 2021). Around 12 hectares of it belong to CV. Madura Marina Lestari is still in the completion stage. Previously, the land was owned by a resident with the initials HS, a businessman from Sampang. However, because the land he owned had not been used for a long time, he finally sold it to a businessman from Sampang.

After conducting a re-evaluation within the company, it turned out that HS's 12 hectares of land were not enough for shrimp farming operations. To overcome this, the solution was to buy rice fields around the land for 15,000 per meter. Of course, it is very cheap for one meter. The surrounding community, who understood land prices well, later considered massive land purchases unreasonable because they were below the Taxable Object Value (NOJP) standard.

Since the construction of the shrimp pond industrialization in 2017, the ecological conditions of Andulang Village have become increasingly worrying (LPPM 2021). The landscape's appearance, which was initially fertile, where people were used to working in the agricultural, plantation, and marine sectors, has begun to change. In the agricultural sector, for example, rice fields that used to be productive are now starting to be abandoned. The reason is that the rice fields no longer significantly contribute to the economy.

The failure of irrigation to function correctly is one of the factors that caused the rice fields to be abandoned. Meanwhile, in the plantation sector, people can no longer go to the fields because their plantation land has been converted to the shrimp pond sector (Murtadho 2021). Likewise, what happened in the marine sector, where coastal communities who depend on marine catches for their livelihoods are now increasingly on

the brink of uncertainty considering the environmental impact of the industrialization of shrimp ponds, which has reduced marine catches.

As expressed by one of the residents of Andulang village with the initials M;

…..We reject the construction of ponds because it maintains sovereignty over agricultural land and the negative impacts in the form of environmental pollution….

Furthermore, he also emphasized that the development of the shrimp pond industry has very little socialization. In reality, there are only a handful of people who understand the development of ponds; some do not know. M certainly regrets that the development of shrimp ponds is built on productive land owned by residents. In addition, according to him, the disposal of waste into the sea is very problematic because it can damage marine biota, making it difficult for traditional fishermen to catch fish. This kind of reality is precisely the same as what happened in Gersik Putih Village, namely that the existence of industrialization - shrimp and salt - impacts the ecosystem of marine biota.

M and other residents with the initials S and R also said the same thing. Both of them said in one voice:

…… Instead of the ponds being able to open up employment opportunities for them, on the other hand, they also cause pollution to agricultural land……

They both deeply regret that the agricultural land that was initially productive has become unproductive, resulting in decreasing agricultural production. It is not surprising that in the future, many local people will leave their land and switch to other, more promising sectors. On the one hand, this reality not only gives rise to ecological consequences but has also resulted in social change.

Although some of the Andulang community initially rejected the shrimp pond development plan, the firm grip of capitalist capital made them seem unable to stop it. In this context, investors can do various things to accomplish their mission well. One of them is colluding with the local government, as happened in Andulang Village, where the village government took part in creating land conversion. Justifying all means is inseparable from investors' perception of land as nothing more than an entity with a high economic side. This is one of the reasons they buy large quantities of land residents own.

The massive industrialization of shrimp ponds has given rise to ecological consequences in Andulang Village and other villages. Lapa Dhaja Village is one example of how establishing several shrimp ponds is not environmentally friendly. Based on an investigative report by Fajar Magazine, PT Anugerah Inti Laut—a company engaged in general trading, export-import, and aquaculture business based in Surabaya—has

invested Rp—3.25 billion in capital for the construction of a name shrimp pond. Lapa Dhaja Village has indeed been known as one of the fertile areas. This village is also one of the best coconut-producing centers in Sumenep Regency. Its location is in the eastern corner of Madura Island. In addition to being fertile, this village is also close to the sea, which makes it one of the most strategic areas for the shrimp pond industry.

Its location surrounded by the sea connecting Madura Island with other islands on the east side, adjacent to Lombang Beach—one of the most potential tourist areas in Sumenep—and close to Dungkek Port makes Lapa Dhaja Village one of the villages most targeted by investors since 2015. The Lapa Village area consists of three areas: Lapa Taman Village, Lapa Laok Village, and Lapa Dhaja Village. These three villages have different fates regarding land conversion. Some firmly maintain it; some are willing to let it go to investors. The Lapa Taman Village community firmly rejects the land conversion issue. Several young people and residents in the village are involved in activism to maintain the sovereignty of their land.

The motive behind the rejection was based on a bitter experience that had happened before. The bitter experience they faced due to their means of production in the form of land being controlled by other people encouraged them to buy back their previously sold land. They bought back all the land controlled by outsiders. This is what then allowed them to regain control of their land sovereignty. They did not want to be isolated from their land.

Meanwhile, Lapa Dhaja and Lapa Laok Villages suffered the opposite fate. Both villages had to let investors loot their land, many of which had changed ownership. In Lapa Dhaja Village itself, only about two hectares of unsold empty land are left from the fifteen hectares of land sold. The fifteen hectares of land are equivalent to 150,000 m2—a fantastic amount for shrimp pond projections.

The fate of land conversion in Lapa Dhaja Village is almost the same as that of Andulang Village, which involves village officials, community leaders, and brokers to persuade residents to release their land. When the author interviewed a man with the initials B, a resident, he said that he was disappointed with the company's actions involving the village head and his cronies to pressure him. Previously, the land conversion process was so challenging that four residents were pressured and persuaded to sell their land immediately.

B was one of the victims among the four people. After going through negotiation and pressure from the company, B's land was finally successfully acquired. B admitted

that although there had been previous socialization by promising that his party would work in the ponds, there was an implicit attempt to proletarianize the surrounding community. This is because investors have separated the owners of their means of production from their means of production through the work system determined by the company.

On average, the land converted above is productive land previously overgrown with coconut trees. The village's landscape has now changed along with the operation of the pond industrialization. The arrival of heavy equipment that cleared the coconut trees marked a significant transition. The concerns of the Lapa Dhaja Village community have increasingly surfaced along with the impact on the environment.

## CONCLUSION

The agrarian issue in the form of control of tanah sangkol by several companies in Sumenep has caused various significant impacts, namely social and ecological impacts. The conversion of tanah sangkol has caused severe impacts on the environment and social structure. Based on the analysis results, this land conversion contributed to the loss of the sacredness of tanah sangkol, which was previously respected and managed with the principle of sustainability by the local community. In addition, the land conversion process also led to seawater pollution, which was triggered by environmentally unfriendly land management practices, and decreased soil fertility due to deforestation and changes in agricultural systems. This phenomenon worsens the quality of the environment, which has been the primary source of livelihood for coastal communities.

The social factors underlying the conversion of tanah sangkol include economic pressures that encourage people to convert land functions to obtain short-term benefits, such as housing development and shifting people's livelihoods. This economic pressure is exacerbated by the government's inability to implement pro-environment policies and weak supervision of changes in land function. The absence of clear and consistent political policies on land and environmental protection further exacerbates the ecological damage.

Overall, the conversion of tanah sangkol in Sumenep has implications for environmental damage and the shifting of social values that have taken root in society. Therefore, there needs to be a more assertive and sustainability-based policy and a social approach sensitive to local economic needs and environmental conservation to reduce the

negative impacts of this land conversion. This study also significantly contributes to sociological studies, especially in understanding the relationship between converted land use and industrialization and its impact on society. However, the shortcomings of this study are that it only uses one theoretical review or one sociological view, so further research is needed. For example, a multidisciplinary study that combines a sociological perspective with other disciplines, such as ecology, economics, and law, can be used to get a more holistic picture of the impact of land conversion on society and the environment, this will help formulate more sustainable and inclusive policies.

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