**Local Government Policy: Strategies For Resolving Conflict Of Interest And Social Instability In The Managemenet Of Coastal Area Shrimp Ponds, Indonesia**

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**Abstract**

The management of shrimp farms in coastal areas often leads to conflicts of interest involving local governments, shrimp farm operators and communities. Social stability is also disrupted because the management of shrimp ponds has an impact on environmental pollution, damage to marine ecosystems resulting in loss of livelihoods of coastal communities, and environmental disturbances due to aerators that are lit continuously. This study aims to formulate a deliberative policy strategy in resolving conflicts of interest and social instability in the management of shrimp ponds. The method used is descriptive qualitative with a case study approach. This study involved 9 institutions with 11 informants with data collection through observation, interviews, and documentation. Data were categorized through the Nvivo Pro 12 application. To deepen the data, questionnaires were distributed to 100 samples, which were analyzed by simple regression to test the impact. The results explain that shrimp pond management involves many actors and has a significant impact on the environment, social, and economy. The local government's deliberation policy as a solution-oriented and progressive strategy in preventing conflict and aligning actors' interests. The research findings are deepened by interpreting the problems and strengthening interests, shrimp pond management practices, and deliberations involved by local governments to harmonize interests. However, public involvement in planning needs to be optimized for more effective resolution and conflict resolution.

**Keywords:** Deliberative policy; coastal governance; shrimp pon management; social and environmental stability; conflict of interest.

**INTRODUCTION**

Conflicts of interest and social instability in coastal shrimp farm management are popular and growing issues in several countries, illustrating the complexity of the difficulties of public officials in offering strategic solutions. Shrimp farm management has complex socio-economic and environmental impacts, land and environmental security, loss of traditional agriculture (Paul & Røskaft, 2013), food insecurity, marginalization, rural unemployment, social disorder and conflict, mangrove degradation, biodiversity loss, sanitation, saltwater intrusion, pollution and disease outbreaks are the most strategically affected (Hossain et al., 2013; Martinez-Alier, 2001). Agricultural actors, shrimp farming actors and fisheries actors are the three actors involved in short-term and long-term interests (Bergh et al., 2023).

Problems that often arise in conceptual studies is the absence of studies on the concept of deliberative policy in the management of shrimp ponds in coastal areas. Therefore, this research is important to develop a description and basic concepts of deliberative policy strategies in preventing conflicts of interest and instability in the management of shrimp ponds in coastal areas. Research will be conducted on policy makers, communities and environmental care communities in Sumenep District. The essence of deliberative policy must be raised considering the fact that the field often shows that there are conflicts of interest involving policy makers, pond entrepreneurs and surrounding communities. Another fact is the instability in the sustainability of shrimp pond management that often experiences opposition from the surrounding community and environmental care communities in Sumenep District. The next fact is that the surrounding community is affected by pollution of shrimp pond waste because waste treatment infrastructure in the form of Waste Water Treatment Plants (WWTP) is not provided optimally. The surrounding community is also affected by the noise of the non-stop pinwheel engine as the main tool for shrimp growth so as not to die. The next fact is that the number of illegal shrimp ponds continues to grow. Records from the One-Stop Investment and Integrated Services Office (DPMPTSP) show that by 2023 there will be 700 shrimp farms that do not have operational permits.

The existence of shrimp ponds continues to increase, even the amount of production based on data from the Sumenep Fisheries Service in 2023 reached 2,463.23 tons, an increase compared to 2021 which only reached 976 tons. Along with that, opposition from various parties is also increasing. Communities around the pond area covering three coastal sub-districts, namely Batang Batang, Batu Putih and Slopeng sub-districts, continue to hold demonstrations urging the ponds to be controlled. Environmental communities from the Indonesian Forum for the Environment (WALHI) East Java, Barisan Ajaga Tanah Ajaga Na'poto (BATAN) and Form Masyarakat Peduli Lingkungan (FMPL) have also repeatedly urged and conducted hearings with the local government. Several members of the Regional People's Representative Council (DPRD) also urged the government to provide WWTPs and demanded the curbing of illegal shrimp ponds. The conflict of interest and public pressure continued until the end of 2023.

The results of this study will contribute to the resolution of conflict of interest issues that have an impact on the unstable management of shrimp ponds and community business development. Furthermore, this research will provide recommendations for policy design that is equitable and accommodates all the interests of the Local Government, pond entrepreneurs, and surrounding communities in the review of public policy theory and public interest. Policy is more than just government action to carry out development (Hassall, 2020). Policy is closely related to the fulfillment of public interests and realizing development justice. Equitable policies include responsive policies to public problems that have an impact on social stability. Policies are not only production-oriented (people-centered) but human development (Prasetyo, 2012)

**THEORETICAL FRAMEWORK**

Deliberative policies refer to inclusive development and equitable policies. Inclusive development is applying the principle of optimal participation, involving marginalized groups and accommodating strategic issues (Widianingsih & Paskarina, 2019). Inclusiveness in development includes social, ecological and relational dimensions (Rammelt & Gupta, 2021). Deliberative policy to bring together a wider spectrum of citizens, politicians and experts in achieving effective and democratic policies (Fischer & Boossabong, 2018). Deliberative policies to bridge the gap of interests and provide opportunities to find innovative policies. In deliberative policy there is a design to increase capacity and reflexivity, communication, and public engagement among different actors and represent minority groups (Romsdahl, 2020). The expected orientation of deliberative policy is to overcome the complexity of interests, uncertainty, differences in values and understanding that characterize contemporary policy areas (Wagenaar, 2022).

Deliberative policy as a public policy concept that produces policies that are more innovative, responsive (Prasetyo, 2012; Schaffer et al., 2022), participatory (Romsdahl, 2020) and oriented towards the public interest (Dignam, 2020). Public interests must be prioritized over private interests to build social stability (Dignam, 2020), as part of ensuring the implementation of democracy and providing a sense of security for the public (Abbas et al., 2021). In this policy there is inclusive development (Widianingsih & Paskarina, 2019) and a delibaritive system (Ercan et al., 2020).

The principle of deliberative policy is the involvement of all interest groups in accommodating strategic issues (Widianingsih & Paskarina, 2019). Policies are carried out bottom-up with democratic principles (Alam et al., 2022). Deliberative policy offers an integrative and progressive approach in the complexity of problems, relationality and practical nature of the policy process (Bartels et al., 2020), through deliberation between citizens and officials as a strategy for investigating policy orientation (Wagenaar & Wenninger, 2020).

Related to the topic of shrimp farm management. Some approaches include; sustainable co-management (Alam et al., 2022; Hukom et al., 2022), management institutions (Suprihadi et al., 2022), collaborative government (Setiawan, 2022), sustainable livelihood framework (Wibisono et al., 2023), sustainable policy and policy implementation (Yulinar et al., 2023). However, the deliberative policy approach has not been conducted in relation to shrimp pond management, which is full of many interests and social conflicts.

**METHODOLOGY**

This research adopts qualitative research with a case study approach (Sugiono, 2016). Qualitative research enables an in-depth understanding of how strategies for resolving conflicts of interest and social instability in shrimp farm management within a deliberative policy approach (Rammelt & Gupta, 2021). Case studies allow for comprehensive exploration of specific contexts related to shrimp farm governance policies. In this study, there were 11 informants consisting of the Head of the Regional Development Planning Agency (Bappeda) of Sumenep District, the Environmental Agency, DPRD represented by Commission I on law and governance, and Commission III on development. Informants also included pond entrepreneurs, coastal communities, environmentalists from Walhi East Java, BATAN and FMPL, and academics from PUSAKA Wiraraja University. Data were obtained through observation, interviews and documentation. Data were analyzed through interview transcription, theme categorization, document analysis (Miles & Huberman, 1994), creation of analysis matrix, coding, and data categorization through NVivo Pro 12, data triangulation, and or conclusion. Data collection tools were voice recording and camera at each data collection point. To deepen the research, questionnaires were also completed on 100 saturated samples (from an infinite number of respondents) with simple regression analysis to test the environmental, economic and social impacts of shrimp farm effluent. The results of the analysis are displayed in the form of simple diagrams to make it easier to read the significance of the effect.

**RESULTS AND** **DISCUSSIONS**

**1. Interest and Involvement of Actors in Shrimp Farm Management**

Many actors are involved and have an interest in the management of shrimp ponds, so that if good management is not done, it will cause conflicts and many disadvantages, especially for farmers and surrounding communities (Hukom et al., 2022; Umbas et al., 2022). In general, the interests of various actors are related to environmental sustainability, economic growth, economic justice and equity, social stability, and public health in the pond area (Iber & Kasan, 2021; Macusi et al., 2022; Seong et al., 2021; Xuan et al., 2021). Among the actors involved are pond entrepreneurs, agricultural actors, fisheries actors, affected communities, local governments, and environmentalists.

1. **Pond Entrepreneurs**

Pond entrepreneurs are the main actors in the rise of the pond industry in coastal areas. There are outside entrepreneurs who have 0.5-3 hectares of cultivated land and local entrepreneurs who generally only 01-0.5 hectares. Local entrepreneurs can be from the local village or from other villages in the same district. Entrepreneurs are involved in preparing capital to buy land owned by local people to be used as shrimp farms. For external entrepreneurs, there is no land lease. The ponds that are cultivated are all property rights whose land has been purchased from the community. The process of land ownership also involves village officials so that people are willing to sell their land to other parties (entrepreneurs) for the benefit of the pond (personal communication, July 17, 2023).

1. **Agricultural Actors**

Agricultural actors are affected by the management of shrimp ponds. Therefore, farmers have an interest that shrimp ponds are managed as well as possible so as not to eliminate farmers' livelihoods. Farmers' interests are in the productivity of seaweed farmers and land farmers in the form of corn and grains (personal communication, July 17, 2023).

Beach lips that are polluted by shrimp pond waste cannot produce high quality seaweed farming. In fact, if the pollution is severe enough, seaweed cannot be planted because the results are not only of poor quality but also detrimental due to low productivity. As for land farmers, the loss of livelihoods due to land conversion that could previously be managed for agriculture. Therefore, farmers have an interest that shrimp farms are not allowed on agriculturally productive lands. Farms that are 1-2 km from the shoreline have a polluting impact on seawater and are detrimental to seaweed farmers.

1. **Fishery actors**

The majority of marine communities work as fishermen or fishermen. Fishermen who have large capital will catch fish in the middle of the sea but those who only have small canoes, the catch area is on the shoreline. When the pond industry became more widespread in the range of 2020, the shoreline area was no longer a productive zone for fishermen. Birbir Beach is polluted by shrimp pond waste which results in fish degradation.

Fishermen have an interest in ensuring that the sea is not polluted and remains a land of income. Another interest is in controlling the management of shrimp ponds so that their waste does not pollute the sea which has an impact on low fish productivity.

1. **Neighboring communities affected by pollution.**

Surrounding communities are not involved in the management of shrimp ponds, but have an interest in the management of the ponds due to direct and indirect impacts. Environmental stability and land security are of concern to the communities surrounding the ponds. The impacts felt by surrounding communities are noise and odor pollution. Shrimp ponds generate noise that disrupts the social stability of the community. There are two tools that are used continuously, namely waterwheels and diesel engines that emit reflected sound reaching 150-200 m around the pond area. The noise gets louder in the middle of the night, disturbing the rest of the community.

Shrimp ponds also produce odors that are quite pungent for residents of the pond area. The pungent odor appears at harvest time due to poorly managed waste disposal. Waste disposal within 3-5 days smells very disturbing to the community.

1. **Government**

Local governments have an interest in economic, social and environmental stability. The government's role as the leading sector of management is indirect through policy. Shrimp farms are generally managed by the private sector, which has high capital. Often the managers are categorized as investors and not local people. Therefore, local governments are also interested in increasing local revenues, environmental sustainability, production sustainability, and the application of rules and regulations (Suprihadi et al., 2022).

However, what is important for the government to consider is social and environmental stability. Therefore, the synergy of economic, social and environmental interests is a concern for local governments.

1. **Environmentalists**

The role of environmentalists can be defined as non-governmental organizations that have an interest in the environment and the economic sustainability of the surrounding community. Some areas of pond management practices are facilitated by multi-actor initiatives led by NGOs, which translate global norms, knowledge and global policy objectives into local knowledge and practices (Kusumawati & Bush, 2015). Environmentalists have an interest in keeping the environment safe so that it remains productive, unpolluted, and unexploited by economic interests.

Table 1. **Interests of Actors in Shrimp Pond Management**

|  |  |  |
| --- | --- | --- |
| **Actors** | **Inters** | **Involvement of other Actors** |
| Shrimp Farmers | Business and economic sustainability | Village government |
| Agricultural actors | Productivity and harvest conduciveness | Local government |
| Fisheries actors | Productivity of fish catch Sea cleanliness | Environmental observer |
| Public | Environmental stability Social | Environmental government Walhi, Batan, FMLS |
| Village/ regional government | Economic interests | Village leadership, village apparatus, fish pond entrepreneurs |
| Environmental observer | Environmental safety | Public |

**2. Socio-economic and Environmental Impacts of Shrimp Farm Management**

Over the last decade the shrimp farming industry has grown rapidly and undergone important transformations in coastal areas (Kais & Islam, 2021). This development has an impact on three aspects: environmental, economic and social (Ray et al., 2021). Local climate disasters, environmental pollution as the most disturbing impact on the environment. Marginalization, mangrove degradation and rural displacement are also part of the economic impacts of shrimp farm management (Taher et al., 2023).

1. **Land and environmental safety**

The management of shrimp ponds has polluted the environment so much that it makes productive land damaged and disturbed. The pollution is in the form of solid and liquid waste discharged in the pond area water flow and discharged to the sea shore (Kompas.id). Waste looking for production results directly flowed into the receiving body of wastewater, namely the River with the content of BOD5, TSS, and NH respectively (Desmantri R & Sulfa, 2024). This condition is also influenced by the unoptimized Waste Treatment Plant (WWTP) as a solution so that waste does not have an extreme impact on environmental damage (detikglobalnews.com).

Shrimp pond effluents contain high levels of pollutants that are a threat to the surrounding ecosystem (Nguyen et al., 2020), the impact is also on human health because pollutants can contaminate the pond area water (Shetty et al., 2023). Land becomes degraded because the uptake of free waste enters productive lands and water sources consumed by the community. In the end, the pond area becomes unsafe for the public health environment.

1. **Destruction of traditional agricultural land**

In this aspect, there is land conversion from productive agriculture to shrimp ponds. Shrimp ponds are located in two places, namely coastal areas near the beach and distant areas but reached by seawater sources for shrimp farming. In the eastern part of Sumenep District Dungkek and Gapura District many production of shrimp ponds ranging distance to the shoreline approximately 1-2 km, but the water source with a certain depth can still be production for shrimp.

In this inland area there are productive agricultural lands such as corn, and beans, there are also productive plants in the form of siwalan trees as the main producer of the village community. agricultural land damage to the conversion of productive land into shrimp ponds. Damage conditions are then exacerbated by defunct ponds that are difficult to restore to traditional agricultural land.

1. **Mangrove degradation**

Mangroves have ecological and economic functions for the environment (Haryanto et al., 2023). Mangrove ecosystems affected by shrimp pond waste can degrade land clearing and reduce the biodiversity of aquatic biota including fishery resources for the surrounding community. Shrimp pond waste also has an impact on polluted mangroves with a slightly yellow and red sea water color. The impact on mangrove fertility is not significant but many mangroves no longer grow thickly in coastal areas where seawater is polluted by pond waste.

1. **Noise and odor pollution**

Every shrimp farm has an aerator or waterwheel. Aerator as a tool to dissolve free oxygen into pond water. Aerators are intended to make ponds a comfortable ecosystem for shrimp growth (Skouteris et al., 2020). The aerator is on all the time until the shrimp are harvested. So the aerator is never turned off from the time the seedlings are planted until they are ready for harvest. The problem is that aerators have noise pollution that is very disturbing to the surrounding community. On average, each shrimp pond has 4-6 aerators installed, so the noise pollution can reach up to 200 m in length. Noise pollution also arises from the desel engine as an alternative power when PLN goes out. Each pond has an alternative desel engine backup so that if it is turned on plus Aerator noise pollution, the range of noise can reach 300m. This pollution is very disturbing because it is a day and a night. When people should be resting and sleeping soundly, it is interrupted due to noise pollution from shrimp ponds (personal communication, Syarifuddin, March 20, 2024).

Another form of pollution is the pungent odor of sewage. Waste discharged into the river from disposal to the rest of the waste in the water gives off an aroma that is very disturbing to the pond area. The added area is mostly done in the middle of the population density. The smell of sewage is not only prevalent around the pond and its disposal but also in the homes of local residents. This happens about 3-4 days after waste disposal.

1. **Rural unemployment**

The main livelihoods of rural communities in shrimp pond production areas are fishermen and farmers. Agriculture in the form of seaweed and field agriculture in the form of corn, and grains. The impact of shrimp ponds on fishermen due to the shoreline fish crisis. Forms of fishing in the form of fishing and nerakat (using fishing nets on the shoreline area) which is usually done by the surrounding community as a basic income. because of the polluted shoreline as a result of degraded fish and community livelihoods are lost.

Other livelihoods include farming and seaweed farming. Seaweed farmers suffer the same impact as fishermen. The harvest of other grasses becomes unproductive and the quality level is reduced. This decrease in quality lowers the price and makes the spirit of agriculture diminish. Meanwhile, in land farming, there is a conversion of land that is usually employed by the community for grains and the starch of siwalan trees for sugar production so that the results cannot be picked. Such conditions have an impact on the loss of livelihoods of rural communities and coastal areas (Anh, 2024).

1. **Marginalization**

The management of shrimp ponds has resulted in economic disparity in the surrounding community. Shrimp pond production is only done for the middle class because the production capital is quite high. People who have the potential to manage shrimp ponds but do not have the capital cannot produce shrimp. Shrimp farming can only be done for the middle class. Then the local people who do not have capital alternatively sell land at low prices to entrepreneurs. This transfer of ownership has continued since 2018 to 2020, resulting in the local community not being able to benefit from the rise of shrimp ponds.

In other aspects, shrimp ponds absorb labor, in 1 pond measuring 500-2000m2 can absorb 4 (four) workers, and for large-scale ponds owned by PT labor absorption can be up to 15 people. However, not all labor can be accessed by the surrounding community. Competence and skill of the labor force are often the main factors. However, the surrounding community feels that labor is generally from outside the area around the pond. As a result, shrimp ponds do not have a significant impact on the economy and work of the surrounding community, so that the marginalization of citizens becomes a problem of the rise of the pond. The impact of shrimp pond management is clearly captured in table 2 and the diagram below.

Table 2. **Impact of shrimp farm management**

|  |  |  |
| --- | --- | --- |
| **Impact** | **Shape** | **Duration (years)** |
| Land and Environmental Security | Pollutants | 1 to 4 |
| Destruction of agricultural land | Productive land conversion | 2 to 6 |
| Ocean pollution | Smelly waterItchy shoreline waterSea water discolorationFish erosion | 2 to 9 |
| Mangrove degradation | Mangrove degradationVegetation land coverFisheries crisis | 2 to 6 |
| Noise and odor pollution | - Noisy- Strong odor | 0,4 to 1 |
| Rural unemployment | - Loss of agricultural livelihoods- Fish catch crisis | 2 to 5 |
| Marginalization | Unequal job opportunities | 2 to 12 |
| Ecotourism degradation | Ecotourism degradationDirty destinationsSmelly destinationsPolluted shorelinesTourist degradation | 2 to 7 |



Gambar 1. Diagram of shrimp waste impact based on questionnaire data processing

1. **Patterns of Conflict of Interest and Soial Instability as a Result of the Proliferation of Shrimp Ponds**

The emergence of conflicts of interest and social instability is triggered by the unprofessional and procedural management of shrimp ponds. Professionalism refers to the management of ponds that pay attention to environmental aspects, social order, waste management so as not to pollute and maintain conduciveness between social and economic so that there is no social instability. Procedures relate to licensing compliance by pond entrepreneurs through the One-Stop Investment and Integrated Services Office (DPMPTSP), IPAL management through the Fisheries Service, and determination of zoning locations through the Environmental Service (DLH). The management of shrimp ponds that do not pay attention to professionalism and procedures ultimately results in conflicts between interested actors and unstable social conditions.

The pattern of conflict of interest that occurs is in the action of social solidarity in the form of actions, demonstrations and hearings to the government to discipline shrimp ponds that harm the public and reorganize Regional Regulation No. 12 of 2013 concerning the 2013-2033 Regional Spatial Plan of Sumenep District which provides leeway for the management of shrimp ponds. Conflict always impacts on food insecurity, public welfare and one's ability to live better (Shemyakina, 2022). This conflict is a concern of the UN in the SDGs 16 agenda on building peace, justice and strong institutions (source: sdgs.com). Another pattern is the attitude of public opposition through social media and extreme media carried out by public figures who have attention to the environment and people's lives (personal communication, Suratman July 20, 2024), while traditional communities make slurs and ridicule about disorderly governance and ponds that harm the community through social media (personal communication, Suratman July 20, 2024).

Conflicts also occur in the transfer of ownership of community land to shrimp pond entrepreneurs. Formally and legally, the land ownership process is carried out from the community to the farmer. However, the transfer was caused by the low knowledge of the community and the intervention of the village government so that people sell their land. As a result, residents regretted after learning that their land was converted to ponds that polluted the surrounding area. This regret eventually accumulated into a social movement of public awareness to oppose and reject the sale of land, and discredit the village government as a broker of ownership transfer.

Picture 2. Patterns of conflict of interest and social instability in shrimp farm management

**4.** **Deliberative Policy and Conflict of Interest Resolution**

Deliberative policy as an effective policy approach in resolving conflicts of interest because it provides space for open and inclusive dialogue. Through deliberation, various stakeholders can reach fair and balanced decisions. Despite facing several challenges, a well-managed deliberation process can produce more sustainable solutions and reduce the potential for long-term conflict. Deliberative policy offers an integrative and progressive approach in the complexity of the problem, relationality and practical nature of the policy process (Bartels et al., 2020), through deliberation between citizens and officials as a strategy for investigating policy orientation (Wagenaar, 2022).

The deliberative policy strategy is carried out by involving actors with an interest in the issue of shrimp pond management, namely shrimp pond entrepreneurs, the community, environmentalists, DLH which is driven by the Regional Government together with the DPRD in formulating policies. Policies are carried out in a bottom-up manner with democratic and participatory principles.

1. **Interpretation of the Problem of Pond Management from the Perspective of the Regional Government.**

It appears that shrimp are in the public spotlight because of two aspects, namely unproductive management and its impact on the environment, economy and society. Meanwhile, the government as the leading sector has the authority to organize to be more effective and responsive to environmental and social problems.

From the government's perspective, the proliferation of shrimp ponds in Sumenep Regency has problems with licensing. Ponds that do not have permits will have an impact on production and realization that violates procedures and does not pay attention to environmental aspects. In the pond licensing procedure, attention must be paid to zoning of landslide-prone areas, zoning of at least 100m from the edge of the pond, and the availability of IPAL (Regional Regulation No. 12 of 2012). The government can intervene indirectly so that shrimp ponds can have an even impact on the eco-social community around them.

Another problem is the consistency of controlling illegal ponds. According to regulations, ponds that do not have permits can be prosecuted by the government through the Satpol PP and according to regulations, this includes environmental crimes. However, in its implementation until 2023 there are still 400 to 550 ponds that are still illegal. The existence of these illegal ponds is due to the difficulty of the government in empowering and assisting which has an impact on the awareness of pond entrepreneurs to be orderly and responsive.

1. **Public Participation and Social Contribution to Conflict Resolution**

Public participation and social contribution are two important elements in conflict resolution, especially those related to conflicts of interest in public policy, resource management, or other social issues (Foroughi et al., 2023; Perlaviciute, 2022). Both have a strategic role in creating sustainable and inclusive solutions by actively involving the community in the decision-making process. Public participation refers to the direct involvement of the community in the decision-making process that impacts their lives (Chompucot & A, 2011). This can include various levels of involvement, from expressing opinions to involvement in policy formulation. Then social contribution relates to the active role of the community or group in helping to create conflict solutions through collective efforts that are voluntary, non-profit, and oriented towards common interests. This contribution can be in the form of involvement in the community, social movements, or cross-sector cooperation.

Public participation in the resolution of shrimp ponds in the form of public information to the government regarding several shrimp ponds that pollute the environment. Then the public collaborates with the DPRD, DLH, DPMPTS, Bappeda and Satpol PP so that participation can be responded to quickly. The public also conducts critical contributions, namely hearings to local governments as a form of Action acceleration. The resolution is also in the form of social contributions from community groups, community leaders and environmental observers Walhi Jatim, BATAN and FMPL. The form of contribution to the matter carried out is in the form of social justice advocacy, building public awareness, and participatory resolution. The image below can clarify public participation and social contributions in the resolution of shrimp pond management conflicts.

**Picture 3.** Public participation and social contribution of shrimp farm management settlement

1. **Deliberation and public forum as an initiative to accommodate interests**

Deliberation and public forum as a strategy to unify views and minimize conflict in a deliberative approach (Asenbaum, 2022; Doyle & Walsh, 2022). In public forums, there are mechanisms to accommodate various interests in the decision-making process. Deliberative space enables active participation in formulating policies, and ensures that decisions are inclusive and fair.

This public forum is not optimally implemented by local governments in accommodating interests. Public forums that discuss shrimp pond management strategies do not involve many relevant actors who have concerns about the environment. Two institutions that concentrate on participating in informative, contributive criticism such as BATAN and FMPL have never been involved in public forums to review shrimp pond governance as a strategic basis for decision making (personal communication. Moh. Amir July 19, 2024).

Public forums have also been initiated since 2018 due to public opposition. The public forum was to conduct an in-depth study and revision of Local Regulation No. 12 of 2013 on RTRW. However, until 2023 deliberations involving the DPRD and local government could not produce an accountable and equitable revision of the local regulation.

The revision of the 2012 local regulation in 2013 is increasingly getting public attention, because there are two important points, namely the existence of greater exploitation space and the elimination of pond locations so that disaster-prone zoning is still possible to be used as shrimp pond locations.

1. **Strategy of Integration of Interests in realizing social harmonization**

The interests of the actors in shrimp farm governance have never been aligned and aligned. As a result, conflicts of interest and social stability often appear to the public as a form of dissatisfaction with the handling of local government. However, various strategies are often carried out in steamay harmonization of interests and social stability.

The main factor of conflict is the proliferation of illegal shrimp ponds that automatically have a significant impact on the environment, economy and social. If the shrimp farming industry is disciplined, the potential for environmental pollution can be minimized because of the mandate in the mining law that shrimp farms must have WWTPs and compensation for the restoration of ponds if they are not discontinued. Therefore, from 700 illegal ponds, a deliberative approach needs to be taken so that they do not apply for licenses.

Licensing should be done more professionally by paying attention to environmental aspects such as the distance of the pond at least 100 m from the shoreline, so that ponds that do not pay attention to environmental aspects are not allowed to operate. The strategy undertaken by the local government is through the approach of illegal shrimp ponds and assistance to the perpetrators of the ponds to consciously conduct operational licenses.

Furthermore, limitations of the study and possible directions for future research are discussed. It is essential that both the results and the discussion are based on solid evidence and that they contribute significantly to the advancement of knowledge on the topic addressed.

**CONCLUSION**

The management of shrimp ponds in coastal areas has triggered many conflicts of interest and social instability. Social instability is described in the form of a lawsuit against the perpetrators of illegal ponds, pressure to control the local government and DPRD, the approach of shrimp pond establishment permit through in-depth environmental and social studies. Then the impact of shrimp pond management includes economic, social and environmental aspects. Some of the actors involved in the management of shrimp ponds and conflicts of interest include local government, village government, shrimp pond entrepreneurs and coastal communities. Environmentally conscious communities are also involved in the conflict as social responsibility and environmental ethics. Some of the community groups include BATAN, a community of environmentalists from the priyayi, FMPL, a student movement concerned about the environment, and Walhi East Java. The conflict tension and situation began to stabilize when the local government attempted to carry out a deliberative policy strategy through the revision of the regional spatial plan and participatory approaches to the public. The DPRD as a public representative responded to public demands to be forwarded to local policy makers, and the local government carried out curbing efforts based on public aspirations and participation. However, the strategy carried out by the government has not run optimally because the actors involved in the conflict of interest are not all involved in the policy strategy for solving public problems. Deliberative policy strategies open up space for active participation from the public and a democratic government attitude towards the formulation of public interests. Involving various interested actors in policy formulation and revision of the RT RW regulation is a solution strategy in preventing conflicts and realizing social stability.

**ACKNOWLEDGEMENTS**

Through hard work and assistance from various parties, this research can finally be completed properly and published in a credible journal. Therefore, we would like to thank the Kemenristek Dikti for grant assistance through the PDP grant program based on contract letter number 038/SP2H/PT/LL7/2024, thanks also to LPPM Wiraraja University for helping to evaluate reports and operators of this research reporting as contract number 016/LPPm/PP-04/E.01/UNIJA/VI/2024. Thanks also to the various parties of the Madura Sumenep local government, namely DPRD, Bappeda, DLH and the community of BATAN, FMPL, and Walhi who supported a lot of data for the quality of this paper to be well presented and in-depth.

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