

## Research Article

# Literature Study of Ethics and Accountability of Governance in Handling Export-based Fishery Products

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## Abstract.

This study aims to examine the role of ethics and accountability in the governance of export-oriented fishery product management in Indonesia through a literature review approach. As a maritime country with one of the longest coastlines in the world, Indonesia holds significant potential in the fisheries sector, regulated through national legislation, including Law No. 31 of 2004 and its amendment, Law No. 45 of 2009. Indonesia's fishery exports cover various categories such as fresh, frozen, canned, and processed products. Effective governance in this sector involves multiple stakeholders, with the government serving not only as a regulator but also as a facilitator, supervisor, and partner to both the private sector and local communities. These partnerships play a crucial role in ensuring efficient fish distribution and access to financing and capacity-building for fishermen and small-scale enterprises. The marine-based processed food industry also demonstrates promising growth, particularly through the involvement of micro, small, and medium enterprises (MSMEs). However, coastal MSMEs often face challenges related to limited capital, technical skills, and market access. This study applies the governance theory proposed by Dwiyanto and Noerhaeni, which highlights three dimensions: institutional structure, value-based decision-making, and the responsiveness of public institutions. The findings suggest that governance rooted in ethical principles and accountability can enhance transparency, effectiveness, and sustainability in managing the fisheries export sector. Strengthening cross-sectoral collaboration is essential to establish an inclusive and participatory governance system for long-term development.

**Keywords:** ethics, accountability, governance, fishery exports, MSMEs, stakeholder partnership

## 1. Introduction

Indonesia as an archipelagic country with the second longest coastline in the world has a wealth of marine resources. This potential makes the fisheries sector one of the strategic sectors in national economic development. The management of this sector has been regulated legally in various laws and regulations, with the main legal basis contained in Law Number 31 of 2004 concerning Fisheries, which was later strengthened by revision through Law Number 45 of 2009. The law emphasizes that fisheries management must be carried out responsibly and sustainably for the sustainability of natural resources

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and improving the welfare of the community, especially fishermen and business actors in the marine and fisheries sectors.

Based on data from the Ministry of Trade [1], Indonesia has ten main categories of export fishery products, namely fresh, live, frozen, canned, dry, salted, smoked, fermented, cooked, and surimi-based products. This diversification of products reflects that the fishing industry does not rely solely on fishing, but has expanded to include a broader value chain, including the processing, distribution, and marketing of fishery products. Thus, the management of the fisheries sector cannot be separated from the involvement of various actors, both from the government, the private sector, the community, and non-governmental organizations.

In the context of fisheries service management, Herwansyah, Rasmuin, and La Didi [2] emphasized the importance of partnerships between the government, the private sector, and the community, especially in the management of Fish Auction Sites (TPI). The government carries out its role as a regulator, facilitator, coach, and supervisor in the partnership relationship. Despite the aspirations of the private sector to manage TPI directly through third parties, practice on the ground shows that cooperation between the three parties is still established. The private sector contributes by providing facilities for the storage and distribution of fish catches, as well as supporting access to capital and maintenance of fishing boats. This indicates that governance practices in fisheries sector management have begun to shift from rigid bureaucratic patterns to more collaborative and participatory.

In broader studies, the concept of governance has become an important approach in understanding the dynamics of relationships between actors in public resource management. Governance is no longer interpreted only as the government's effort to regulate society, but as a collaborative process that involves various parties in decision-making, policy implementation, and program evaluation. Rozikin, Wismanu, and Muttaqin [3] cite the view of Dwiyanto and Noerhaeni that governance includes three main dimensions: first, institutional aspects that emphasize the importance of multi-actor involvement in governance systems; second, the value dimension that shifts the policy orientation from mere efficiency towards social values such as justice, participation, and humanity; and third, the process dimension that describes how actors are actively involved in responding to various public problems.

This governance approach becomes very relevant when it is associated with the issue of local economic development based on marine resources, especially through the

empowerment of Micro, Small, and Medium Enterprises (MSMEs) actors in the processed food sector made from sea fish. Siti Malikhatun Badriah [4] highlights the great potential of this sector considering that Indonesia as a maritime country has a very abundant availability of marine fish raw materials. MSMEs play an important role in processing these raw materials into high-value-added products that can be absorbed by the local market and exports. However, MSME actors in coastal areas generally face various challenges, ranging from limited capital, low processing skills and product innovation, to obstacles in marketing and distribution aspects.

Therefore, strengthening the capacity of MSMEs cannot be done sectorally, but requires a collaborative approach that involves support from the central and regional governments, the private sector, financial institutions, educational institutions, and the community itself. In this context, the collaborative governance approach becomes very relevant. The model emphasizes the importance of cross-sector coordination, communication, and collaboration to produce adaptive policies and targeted solutions. This approach not only increases the effectiveness of programs, but also strengthens the accountability and sustainability of development initiatives at the local level.

Furthermore, the success of governance implementation in the management of the fisheries sector and the development of seafood-based MSMEs is also determined by the use of appropriate study methods in designing policy support systems and platforms. In this case, the *Systematic Literature Review (SLR)* approach as described by Triandini [5] can be used to identify trends, gaps, and methodologies that have been used in the development of information systems and public policies in Indonesia. This method allows researchers and policymakers to get a comprehensive picture of the problems faced and the solutions that have been implemented beforehand. Thus, the decisions taken become more data-based and have a strong scientific footing.

From the above explanation, it can be concluded that the management of the fisheries sector and local economic development in Indonesia requires an integrative and participatory approach. The paradigm shift from the government as the sole decision-making actor to collaborative governance has opened up a wider space for participation for the private sector, academia, and society. In this context, the partnerships built are not solely transactional, but also contain strategic values in increasing the competitiveness and sustainability of Indonesia's marine and fisheries sectors amid the challenges of globalization and climate change.

Furthermore, this literature study is expected to contribute to enriching the academic discourse on fisheries sector governance, especially in identifying key factors that support the creation of effective and sustainable partnerships between the government, the private sector, and the community. By referring to the various relevant literature that has been mentioned, this article also aims to review the concept and implementation of governance in the marine and fisheries sector, as well as explore the potential for the development of MSMEs as a key actor in the creation of added value based on local resources.

There are a number of serious challenges in the management of export-based fishery products, especially related to ethical and accountability aspects. Research conducted by Soeprijanto and Dwi [6] shows that the licensing and supervision system in fisheries exports still faces the problem of non-transparency, which opens up loopholes for corruption and data manipulation. These practices not only harm the state, but also weaken the competitiveness of business actors at the global level. This finding is in line with Nasution [7], who revealed that the low accountability of fisheries management has also led to a decline in international consumer confidence in Indonesian products.

In addition to the issue of accountability, the ethical aspect in fisheries management is also an important concern. The demand for the global market is now increasingly leading to products that are not only of high quality, but also produced sustainably and traceable to their origins. Research by Yulianto and Arifin [8] noted that export destination countries are starting to require sustainability certifications such as the Marine Stewardship Council (MSC) and the Aquaculture Stewardship Council (ASC). This challenge requires Indonesia to improve production standards in order to compete ethically and sustainably. In addition, supervision of illegal, unreported, and unregulated fishing practices (IUU Fishing) is still a big problem. According to Kartika [9], weak supervision of this practice threatens the sustainability of marine resources and reduces international market confidence in the integrity of Indonesian fishery products.

The Indonesian government has responded by developing a Measured Fishing (PIT) policy through the Ministry of Maritime Affairs and Fisheries (KKP). However, the implementation of this policy still faces obstacles. Setiawan and Supriyanto [10] found that there is a gap between policy and implementation in the field, caused by a lack of socialization and weak supervision. As a result, the effectiveness of policies in ensuring transparent and accountable management of fishery product exports is less than optimal.

More broadly, the export of fishery products is also closely related to environmental and social issues. Unsustainable fishing practices, the use of methods that damage marine ecosystems, and labor exploitation are serious concerns. Non-compliance with these ethical principles can threaten the existence of marine resources and reduce the long-term economic value of the fisheries sector. In the global market, consumers have the right to products that are not only safe and quality, but also responsibly produced. Therefore, accountability at every stage of the supply chain is very crucial, both in fulfilling national regulations and maintaining the image of the exporting country. Certification and compliance with international standards have become the main requirements for product acceptance in the global market.

Based on these challenges and dynamics, it is important to conduct further research on the urgency of applying ethical and accountability principles in the export of Indonesian fishery products. This research aims to analyze the impact of unethical fishing practices and provide policy recommendations that can improve the sustainability, transparency, and competitiveness of Indonesia's fisheries sector. Thus, economic benefits, environmental protection, and social welfare can be achieved in a sustainable manner.

Thus, it is important for every actor involved in the management of the fisheries sector to understand their respective roles and responsibilities within the framework of good governance. In today's era of decentralization and digitalization, the effectiveness of collaboration between stakeholders is highly dependent on the ability to build trust, share information, and align common goals. Therefore, efforts to realize inclusive, fair, and sustainable fisheries governance are not the responsibility of one party alone, but the result of synergy and joint commitment of all elements of the nation.

## 2. Methods

This study uses the literature study method, which is an approach that involves searching and analyzing various literature sources that are relevant to the research topic [5]. The literature study aims to obtain up-to-date and in-depth information related to the issues studied [10], focusing on writings related to the research variables.

This study was conducted systematically with the aim of identifying, evaluating, and synthesizing various relevant literature sources in order to build an in-depth conceptual framework on ethical and accountability issues in the export governance of fishery products. The literature studied includes primary sources such as national and international

scientific journals that have gone through a peer-review process, reports on academic research results, official policy documents from the Indonesian government—especially the Ministry of Maritime Affairs and Fisheries (KKP)—as well as reports and publications from international institutions such as the Food and Agriculture Organization (FAO), Marine Stewardship Council (MSC), Aquaculture Stewardship Council (ASC), and the World Wide Fund for Nature (WWF). To ensure the relevance and accuracy of the information, only literature published within the last ten years (2015–2024) and directly related to the topics of ethics, accountability, and export of fishery products was included in the analysis. Literature that does not contain specific discussions of exports, is not fully available (only in the form of abstracts), or contains high bias without valid data support, is explicitly excluded from the study.

The process of collecting literature data is carried out through systematic searches in various online scientific databases such as Google Scholar, ScienceDirect, JSTOR, SpringerLink, and Garuda Ristekbrin. The search was conducted using specific and targeted keywords that were in accordance with the study topic, including: “fishery export Indonesia”, “ethics in fisheries”, “governance accountability in fisheries”, “IUU fishing Indonesia”, “traceability in seafood supply chain”, “sustainable fishery certification”, and “measurable fishing policy (PIT)”. After the literature is collected, a gradual selection process is carried out, starting from filtering based on titles and abstracts, then continuing with an in-depth review of the content of the literature, and ending with verification of data validity and source credibility.

Data analysis was carried out qualitatively through a thematic approach, namely by grouping the content of the literature into five main themes: (1) ethics in the export of fishery products, (2) accountability of fisheries governance, (3) the role of international sustainability certifications and standards, (4) evaluation of national policies such as Measured Fishing (PIT), and (5) challenges in supervising Illegal, Unreported, and Unregulated (IUU) fishing practices. The analysis process is carried out using the narrative synthesis technique, which allows the author to compare, review, and assemble findings from various sources integratively. The validity of the study results is strengthened through inter-source triangulation, namely by comparing the results of academic journals with data and policy reports from government institutions and international organizations. With this approach, the literature review conducted is expected to be not only descriptive, but also able to provide a deep and comprehensive understanding of the dynamics, challenges, and urgency of applying ethical and accountability principles in Indonesia’s fisheries export sector.

### **3. Results and Discussion**

#### **3.1. Legal Basis of Fisheries Management**

Indonesia has a clear legal basis in the management of the fisheries sector, namely through Law Number 31 of 2004 which was later strengthened by Law Number 45 of 2009. These two regulations are an important foothold in regulating all aspects of fisheries, from resource exploitation, utilization, to distribution and marketing of fishery products.

#### **3.2. Varieties of Export Fishery Products**

Based on data from the Ministry of Trade, Indonesia has ten main categories of export fishery products, namely: fresh, live, frozen, canned, dry, salted, smoked, fermented, cooked, and surimi-based products. This diversity reflects Indonesia's great potential in the global fisheries industry.

#### **3.3. The Role of Government and Partnership Patterns**

According to Herwansyah and Rasmuin [2], the government has a strategic role in building partnerships between the private sector and fishing communities. This role is carried out in the form of regulators, facilitators, coaches, and supervisors. In practice, the partnership includes the management of Fish Auction Sites (TPI), the provision of fish storage and distribution facilities by the private sector, as well as support for access to capital and ship maintenance.

#### **3.4. Potential and Challenges of Processed Food MSMEs**

According to Siti Malikhatun Badriah [4], the processed food industry made from sea fish in Indonesia has great potential due to the abundant availability of raw materials. However, MSMEs, which are the main drivers of this industry, still face various obstacles, such as limited capital, technical skills, and market access. Therefore, cross-sectoral cooperation is needed between the government, large and small business actors, and the fishing community.

### 3.5. Governance Theory as a Governance Approach

The theory of governance according to Dwiyanto and Noerhaeni [3] contains three main dimensions:

1. Institutional: describes the system of cooperation between the government, the private sector, and the community.
2. Values: denotes the shift in values from administrative to social values such as freedom and justice.
3. Process: describes how government institutions respond to public needs and concerns.

Based on literature studies, strengthening Indonesia's fisheries sector requires good governance, which not only relies on regulations, but also on the effectiveness of implementation and partnerships between parties. The governance approach is a relevant solution to accommodate various interests and the role of actors in the management of the fisheries sector in a participatory and sustainable manner. Partnerships between the government, the private sector, and fishers in the management of TPI and support for fishery MSMEs are models that need to be developed more widely. The active role of the private sector as an economic actor, as well as a development partner, provides opportunities to strengthen the value chain of fishery products, from upstream to downstream.

MSMEs as the backbone of the fish-based food industry also require special attention. MSME empowerment must include skills training, business assistance, easy access to capital and markets, and legal protection. This step can encourage local economic growth, and support the sustainability of Indonesia's marine resources. Ethical and accountability aspects in the export governance of Indonesian fishery products appear prominently in various practices and policies, although their implementation still faces significant challenges. The Government of Indonesia, through the Ministry of Maritime Affairs and Fisheries (KKP), has encouraged transparent and sustainable fisheries governance through the Measured Fishing (PIT) policy, which aims to regulate catch quotas based on zones and resource capacity [10]. However, in the field, the implementation of PIT faces obstacles in the form of lack of socialization, weak supervisory capacity, and non-optimal reporting systems, which open up gaps for unaccountable practices such as manipulation of catch data [6]. Disintegration between implementing institutions



also leads to weak controls on export reporting that are vulnerable to corruption and procedural irregularities.

On the other hand, micro, small, and medium enterprises (MSMEs) who are the main drivers of the seafood processing sector in Indonesia also face great challenges in implementing the principles of ethics and accountability. Although MSMEs have great potential in supporting exports, limited access to financing, technology, and information makes it difficult for them to meet international standards such as the Marine Stewardship Council (MSC) and the Aquaculture Stewardship Council (ASC) [8]. As a result, traceability and sustainability aspects in the supply chain are often overlooked. In addition, the practice of exploitation of informal labor, excessive working hours, and lack of social protection are separate ethical challenges that are rarely revealed due to weak supervision [7].

The main problem in this context lies in the lack of integration of government regulatory systems, MSME capacity, and global market standards in one synergistic governance framework. Governments tend to focus on the technical aspects of licensing and regulation, while MSMEs struggle to meet market demands without sufficient support, and international consumers demand high transparency and ethical compliance. Several integrative efforts have been made, such as the Indonesian Sustainable Tuna Initiative (ISTI)\* program which involves business actors, NGOs, and the government in guiding smallholder fishers to meet sustainability standards [9]. However, such schemes are still limited and have not become part of national policy systemically.

With a governance-based approach, it is hoped that the development of Indonesia's fisheries sector will be able to improve the welfare of coastal communities, as well as create a fair and sustainable ecosystem.

## 4. Conclusion

Based on the results of the literature study, strengthening the governance of the fisheries sector and fish-based food industry in Indonesia requires a holistic and participatory approach. Even though it has a strong legal foundation, challenges in implementation and limitations for business actors, especially MSMEs, are still the main obstacles. The government's strategic role as a regulator, facilitator, and coach must be strengthened through inclusive partnerships with the private sector and fishing communities.

The fisheries sector is one of the backbones of Indonesia's economy, especially in supporting the growth of non-oil and gas exports. As an archipelagic country with the second longest coastline in the world, Indonesia has enormous marine potential, both in capture fisheries and aquaculture. In recent decades, the government has paid great attention to strengthening this sector as part of its blue economy development strategy. However, efforts to develop the export fisheries sector have not fully succeeded in improving the welfare of coastal communities and small-scale fishers evenly, and are still plagued by various challenges in terms of resource sustainability and weak governance.

The demand for fishery products is determined not only by the quantity and quality of the product, but also by the standards of ethics, sustainability, and accountability of its production processes. Major importing countries such as the United States, Japan, and the European Union are now implementing strict regulations on products entering their territories, especially regarding the issue of Illegal, Unreported, and Unregulated (IUU) Fishing, workers' rights in the supply chain, and sustainability of the marine environment. Therefore, the transformation of the governance of the export fisheries sector that is oriented towards ethics and accountability is an absolute must, not an option. In practical terms, strengthening governance in the export fisheries sector faces various complex challenges. The first challenge is the weak supervision of fishing practices that are not environmentally friendly. There are still many business actors, especially in remote areas, who use destructive fishing gear or exceed the allowable catch quota. This not only threatens the sustainability of fish stocks, but also tarnishes Indonesia's image in the eyes of the international market.

The second challenge is the lack of transparency in the supply chain. Most of the traditional fishermen's catches are not well documented, making it difficult to trace the origin of the fish (traceability). This opens up loopholes for the practice of mixing legal and illegal catches, and complicates the sustainability certification process which is a key requirement in the export market. In addition, fisheries reporting systems in various regions have not been integrated nationally and still rely heavily on manual methods.

The opportunity to improve the governance of this sector is actually quite large. First, advances in digital technology can be used to build a real-time data-based fisheries monitoring system, ranging from reporting catches, distribution, to exports. Second, increasing global consumer awareness of environmentally friendly and ethical products can be a driving force to reform fisheries business practices in Indonesia. Third, cooperation with international organizations, environmental NGOs, and the private sector can

encourage technology transfer, capacity training, and funding for sustainability-based projects.

#### Policy Recommendations for the Government

Based on these challenges and opportunities, a number of strategic policies need to be implemented by the government to create more ethical and accountable governance of the export fisheries sector:

##### a. Strengthening Regulation and Law Enforcement

b. The government needs to revise and harmonize regulations related to sustainable fisheries practices, as well as strengthen the capacity of supervisory officials in the field. Law enforcement against IUU Fishing perpetrators must be carried out strictly and indiscriminately. The use of monitoring technologies such as the Vessel Monitoring System (VMS) and Automatic Identification System (AIS) must be applied comprehensively, even for small ships.

##### c. Digitization of Reporting Systems and Supply Chains

The development of an integrated digital reporting system from the fisherman to the exporter level will increase transparency and accountability. This system can include reporting of catches, use of fishing gear, catch locations, and parties involved in distribution. The integration of blockchain technology in product tracking can also be considered to increase the confidence of the export market.

##### d. Sustainability Certification and Incentives for Business Actors

The government needs to provide technical support and fiscal incentives for business actors committed to sustainability certification such as MSC (Marine Stewardship Council), ASC (Aquaculture Stewardship Council), and Fair Trade. Assistance to fisher cooperatives and MSMEs is also very important so that they are able to meet these international standards.

##### e. Protection of Workers' Rights and Fishermen's Welfare

Social protection and employment policies for fishery workers, both at sea and on land, must be strengthened. The government can work with international institutions to develop a code of ethics for fisheries work and conduct regular social audits. Fishermen's insurance schemes, access to financing, and fair prices for catches are also priorities to improve their living standards.

f. Multi-stakeholder collaboration

Good fisheries governance policies require close cooperation between the central government, local governments, business actors, NGOs, academics, and local communities. Inclusive policy dialogue forums should be facilitated to develop a shared strategy that is sustainable and responsive to global market dynamics.

Strategic Directions for Fisheries Business Actors

In addition to the role of the government, business actors also have moral and strategic responsibilities in improving the ethics and accountability of the fisheries sector. Here are some important directions that the private sector can take:

a. Application of Business Ethics and Global Compliance

Fisheries companies must start adopting Environmental, Social, and Governance (ESG) principles in every line of their operations. Compliance with international standards is not only a tool for regulatory compliance, but also a long-term investment in building consumer trust.

b. Transparency and Self-Audit

Business actors need to conduct regular internal audits and open data related to the production process, raw material sources, and working conditions in the field. The use of honest and verified product labels and information will strengthen their position in the export market.

c. Partnerships with Local Communities

A partnership-based approach between companies and local fishing communities will create an inclusive and equitable business ecosystem. Programs for coaching, profit sharing, and capacity training for fishermen can be a form of real contribution to sustainable development.

d. Innovation in Products and Production Processes

The fisheries industry needs to continue to innovate, both in product diversification (for example, value-added processing), energy efficiency, and the use of environmentally friendly materials. These innovations are important not only for business efficiency, but also for meeting the expectations of an ever-evolving market.

A governance approach that includes institutional, value, and process dimensions is key in creating a fair, responsive, and sustainable fisheries management system. The development of MSMEs in processed fish food through training, access to capital, and legal protection is also an important aspect in strengthening this industry. With cross-sector synergy and effective governance, Indonesia's fisheries sector has the potential to become a key pillar in supporting food sovereignty and the welfare of coastal communities.

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