

Bali Strait Optimization: Joint Decree on Marine Management

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ABSTRACT

The Bali Strait has advantages in meeting points such as meetings of local and foreign fishermen, water quality and fish quality, as well as being the busiest strait in Indonesia which involves stakeholders, business, fishermen, military, state agencies, and tourism. This article aims to optimize the management of the Bali Strait through a Joint Decree (SKB). A descriptive qualitative research method to generate in-depth descriptions. Well managed results involving the provinces of Bali and East Java. Many sectors are involved, by him a Joint Decree was made so that it is managed properly, professionally and proportionally. The SKB is an instrument for coordinating and maximizing marine governance in the aspects of fishing, security and control over lemuru fishing and is relevant to the Minapolitan area program by integrating the roles of all elements of fisheries management

INTRODUCTION

Many sectors are involved in the marine management of the Bali Strait, so it is very important to make joint decisions so that they are managed properly, professionally and proportionately. Joint management is stated in the SKB text which stands for "Joint Decree". A Joint Decree is a document issued by two or more government institutions or agencies to regulate a matter or cooperation between these institutions. SKB is often used as an instrument to coordinate decisions and actions between several government agencies in order to achieve the same goal (Roza et al., 2021). SKB usually includes provisions, policies, or steps that must be taken by the institutions involved (Jiwantara, 2019).

SKB has an important role in coordination and collaboration between government agencies to achieve common goals. In the context of marine management in the Bali Strait, the relevant SKB involves several institutions such as the Ministry of Marine Affairs and Fisheries, the Ministry of Environment and Forestry, and possibly also the local government (Mandasari, 2013). SKB can cover various aspects of marine management, such as regulation of the use of sea areas, environmental protection, management of marine resources, fishing activities and so on. Through the SKB, these government agencies can work together to ensure sustainable marine management and preserve ecosystems in the Bali Strait, as well as ensure optimal utilization of marine resources for the benefit of society (Nugraha et al., 2018).

As the largest archipelagic country in the world, where two-thirds of its area is sea and has the second longest coastline in the world. Indonesia has enormous maritime potential (setneg.go.id/Indonesia maritime axis). According to Edy Prabowo (Prabowo, 2021) argued that a maritime country is not the same as an archipelagic country. A maritime country is a country that is capable of utilizing the sea, although the country may not have many seas, it has the technological, scientific, equipment and other capabilities to manage and utilize the sea, both in terms of space and natural wealth and strategic location (Nugraha et al., 2018). Therefore, many archipelagic countries or island countries are not or have not become maritime countries because they have not been able to take advantage of the sea that is already under their control (Voorberg & Van der Veer, 2020). In addition, it is necessary to emphasize the government's commitment as a leading sector.

Marine potential, especially Indonesian fisheries, is a neglected sector, in which the country focuses on development on land. Even though Indonesia's sea consists of 2.7 km² of the Exclusive Economic Zone (EEZ) and 3.2 million km² of territorial sea area, so based on UNCLOS 1982 the total area of Indonesia's sea is 5.9 million km². This fact shows that Indonesia has considerable sea potential and can even become one of the supporting aspects of the Indonesian economy (Angeles & Dreisbach, 2020; Rasaili & Alfiyah, 2019).

Other problems in the fishing sector are described in the annex to the Strategic Plan for the 2020-2024 Minister of Maritime Affairs and Fisheries Regulations, namely:

- 1) not optimal management of fish resources in a sustainable manner and there is degradation of Fish Resources (SDI) due to exploitation that exceeds the ability of fish to regenerate.
- 2) the level of productivity of fishing boats and fishing gear that still needs to be improved.
- 3) Inadequate infrastructure and connectivity of fishing ports and other facilities and infrastructure.
- 4) fishermen's access to production factors is not yet optimal, including capital and a protection system that must be continuously developed.

Even though the abundant marine natural resources have great potential and are common property (Simbolon et al., 2011). These resources do not mean resources that are jointly owned, but property rights over these resources are held jointly. That is, marine resources are shared property (Sutomo et al., 2012). Management of shared natural resources is vulnerable to over-exploitation, such as seas, fish, rivers, air and forests and everyone has no concern for protecting them (Sari et al., 2017).

Marine resources, in this case fisheries, which are shared resources, can cause disasters and bring destruction or can be called a tragedy of commons (Lubis et al., 2021). Tragedy occurs not because there are many parties as beneficiaries or property rights holders, but rather because of the manifestation of bad morality and ethics, as well as unsupportive aspects of legislation.

Even though Article 33 paragraph 3 of the 1945 Constitution states that land, water and the natural resources contained therein are managed by the state and aimed at the prosperity and welfare of the people. The embodiment of this paragraph contains natural resources that are given to the community to be used and managed properly for the welfare of fishermen. As the natural resource potential in Kedungrejo Muncar Village, Banyuwangi Regency, East Java Province and Pengambengan Village, Jembrana Regency, which is part of the Bali Province

Marine governance policies are a set of policies and actions taken to manage and utilize marine resources in a sustainable manner. The objective of marine governance policies is to ensure that marine resources can be used effectively and sustainably for the benefit of all parties, including fishermen. Marine governance policies are very important to ensure that limited marine resources can be used effectively and sustainably.

Ocean governance is not just a matter of management. Governance is a matter of balancing power among stakeholders in solving problems and creating new opportunities (Purwaningsih et al., 2012). Governance determines goals, while management is an effort to achieve these goals. Governance is more political, while management is more technical. Management of marine resources has the main goal of maintaining production, especially through regulations and enhancements to improve the welfare of fishermen to meet the needs of industries that utilize this production (Nugraha et al., 2018).

The involvement of state stakeholders in carrying out the functions and roles of various central, provincial or district elements in their policies to realize comprehensive marine governance. The involvement of each state stakeholder in

carrying out policy implementation and authority to manage potential marine resources still overlaps (Thaliya et al., 2021).

The overlapping of stakeholders that occurred in the Bali Strait connects the two Provinces of Bali and East Java Province. Between the two provinces have made an agreement in marine management in each region to regulate both the portion of fishing results, security, territorial boundaries and regulation or control especially lemuru fish in the Bali Strait as outlined in the Draft Joint Decree (SKB) of the Governor of Java East and the Governor of Bali which has uniqueness and characteristics such as, 1) Meeting Point as a meeting of local fishermen and migrants from outside Bali, 2) Water conditions and fish quality in the Bali Strait, 3) One of the busiest straits in Indonesia through which stakeholders pass, business, fishermen, military, state agencies and tourists, 4) Far from the centrum or management center, Center: Distance from Bali Strait to Denpasar Puspem = 144.1 km and Center: Distance from Bali Strait to Puspem Surabaya = 317.1 km, 5) The meeting between the North Sea (Java Sea) and the South Sea as the Indonesian Ocean, 6) In any governance in Bali, the cultural distinctiveness of Tri Hita Karana is always emphasized.

The waters of the Bali Strait also feature a meeting of Balinese fishermen and Muncar fishermen which connects the two Provinces of Bali and East Java Province. As shown in map 1 below:

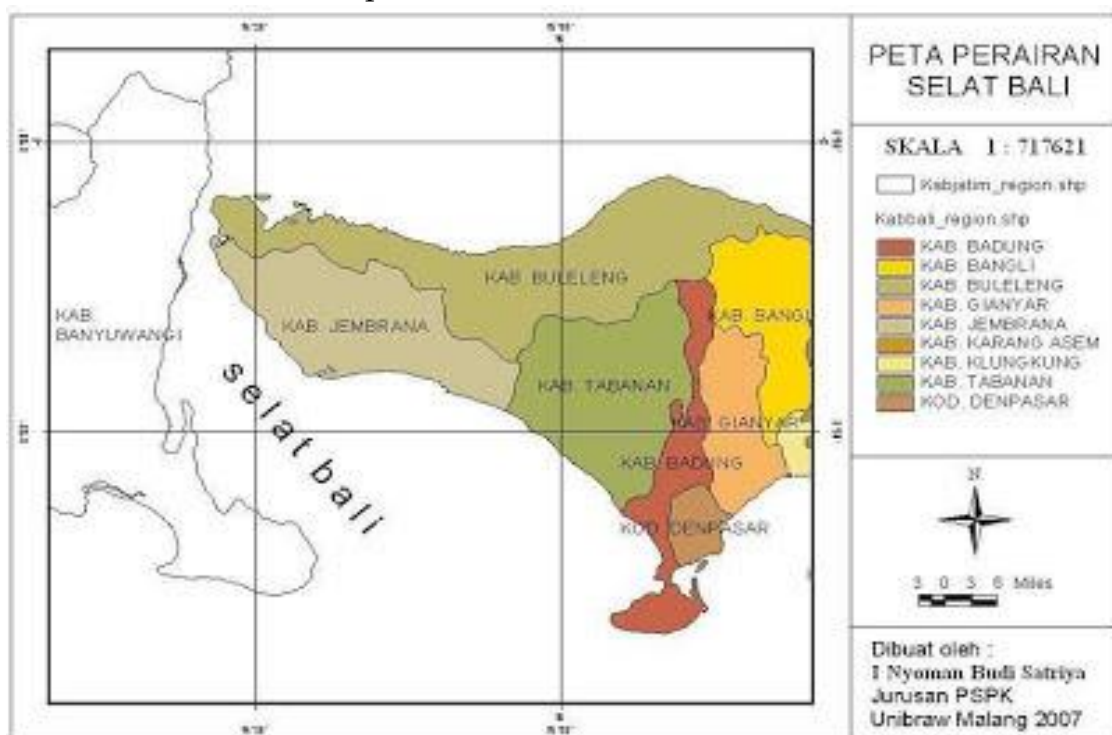


Figure 1. The waters of the Bali

The picture above of the fishing ground occurs in the Bali Strait which has the largest central lemuru. Where there is management that is still poor, it is necessary to involve the role of state stakeholders in dealing with problems related to marine governance at the central, provincial and district levels in a comprehensive manner.

LITERATURE REVIEW

Optimization and management of the Bali Strait involves various aspects such as navigation, environment, maritime security and economy. Climate change, increased ship traffic, and protection of marine ecosystems are some of the important things that need to be considered in managing the strait. The Bali Strait is a strategic maritime route between Bali Island and Java Island in Indonesia. Optimization and management of this strait is important given the increase in traffic, maritime security issues, and environmental impacts that must be faced (Smith, J.K., & Johnson, A.B. 2020).

In this context, several related literatures, including optimization of navigation, Optimization of Navigation, various studies on optimizing navigation in the Bali Strait have been carried out. This research includes designing efficient ship routes, utilizing the latest navigation technology, and maritime traffic control systems to avoid collisions and congestion. Then the aspect of maritime security (Rahman, M.A., & Kim, S.K. 2019). Articles in the literature review efforts to improve maritime security in the Bali Strait. This includes improving border patrols, countering cross-border crime threats, and regional cooperation in the exchange of maritime intelligence information (Anderson, C.D., & Martinez, E.F. 2018)

Another scope relates to the environment and conservation. The literature review also highlights the environmental impact of ship traffic in the Bali Strait. This research discusses the risk of oil spills, sea air pollution, and damage to coral reefs. The articles also discuss sustainable management plans to protect marine ecosystems around the straits.

Apart from that, the implementation of the economy is unforgettable. The reviewed literature analysis includes the economic impact of increased trade flows through the Bali Strait. Factors such as potential revenue from port services, transport efficiency, and impact on Bali's tourism sector are also discussed (Green, L.M., & Brown, R.W. 2021).

METHODOLOGY

According to Sugiono (2016) explains that qualitative research is a research technique that produces descriptive data in the form of written or spoken words from people and observable behavior. A qualitative approach is expected to be able to produce in-depth descriptions of observable speech, writing and/or behavior of a particular individual, group, community and/or organization in a particular context setting which is studied from a complete, comprehensive and holistic viewpoint (Johnson & Onwuegbuzie, 2004).

Qualitative research aims to gain a general understanding of social reality from the perspective of the participants. This understanding is not determined beforehand, but is obtained after conducting an analysis of the social reality that is the focus of the research. Qualitative research is also called: interpretive research, naturalistic research, phenomenological research.

Qualitative research will later produce descriptive data or understanding in the form of written or spoken words from people and observed behavior. For this reason, the reason why researchers use qualitative research methods is that it can make it easier for researchers to carry out research, besides that it is also more thorough, detailed, in-depth and can get to know people (subjects) personally and can see experiences that we may not know at all.

RESULT AND DISCUSSION

The Role of the Muncar Coastal Fishing Port (PPP).

The Muncar Beach Fisheries Port (PPP) Banyuwangi Regency is a Technical Implementation Unit (UPT) under the auspices of the Maritime Affairs and Fisheries Service (DKP) of East Java Province. The Muncar Coastal Fisheries Port (PPP) is tasked with carrying out and controlling fishing activities based on the Muncar port relating to preparation for catching, anchoring, landing of fish and management of port infrastructure.

The roles and functions of the Muncar Coastal Fishing Port (PPP) control and document all activities related to the provision of fuel, berths, entry and exit of ships from the port, as well as the production development of all fishing vessels based at the Muncar port. The results of the control and documentation were immediately submitted to the DKP of East Java Province and there was no coordination with other stakeholders in locations such as the Banyuwangi District Fisheries Service, TPI Muncar, Muncar Fisheries Cooperatives or agencies under the Ministry of Maritime Affairs and Fisheries (KKP).

Based on secondary data and field observations related to the Pengembangan VAT function, it can be described as follows:

- a. Port Services
- b. Availability of Port Facilities
- c. Socialization and Development of Fishermen

The Role of Pengembangan Archipelago Fisheries Port (PPN).

The Archipelago Fisheries Port (PPN) Pengembangan is the largest center for community fishing activities in Bali Province and one of the Outerring Fishing Ports which is used not only by fishermen from the island of Bali but also fishermen from the island of East Java. Not only are the two islands between Bali

and East Java also expected from other islands in Indonesia and internationally operating in the Bali Strait and the Indonesian Ocean.

Development VAT makes it easy for fishing vessels to exploit fishery resources in the sea. This facility requires fishing vessels to have a "safe" place to anchor in order to land the fish they have caught and carry out preparatory activities to return to sea fishing. PPN Pengembangan activities also carry out aspects of production, processing and marketing as well as fostering fishing communities.

In addition, the Archipelago Fisheries Port (PPN) also provides services to ships and fishermen. One of the services for ships by providing fisheries as a production facility includes: providing a home base for fishing fleets, guaranteeing the smooth unloading of fish caught, providing logistical supplies for fishing vessels such as fresh water, fuel, ice for supplies and so on. While services to fishermen as an element of the production force include: processing aspects, marketing aspects and aspects of fishing community development.

Nusantara Pengembangan Fishing Port is a Technical Implementation Unit in the field of fishing ports which is under and responsible to the Director General of Capture Fisheries, Ministry of Maritime Affairs and Fisheries. In accordance with the Decree of the Minister of Maritime Affairs and Fisheries of the Republic of Indonesia Number: KEP. 46/MEN/2002, the Fisheries Port is tasked with implementing the management and service of exploiting fish resources as well as the operational safety of fishing vessels. In carrying out its duties, the fishing port performs its functions:

- 1) Planning, development, maintenance and utilization of fishing port facilities.
- 2) Technical services for fishing boats and fishing port harbor services.
- 3) Coordination of the implementation of security, order and cleanliness of the fishing port area.
- 4) Development and facilitation of fishery community empowerment.
- 5) Implementation of facilitation and coordination in the region to increase production, distribution and marketing of fishery products.
- 6) Supervision of catching, handling, processing, marketing and quality of fishery products.
- 7) Implementation of collection, processing and presentation of fishery data and statistics.
- 8) Development and management of information systems and publication of research results, production and marketing of capture fishery products in their area;
- 9) Monitoring of coastal areas and facilitation of marine tourism;
- 10) Implementation of administrative and household affairs

Based on secondary data and field observations related to the Pengembangan VAT function, it can be described as follows:

- 1) Fishermen community development center.
- 2) Fishing boat berths.
- 3) Catch landing place.
- 4) A place to expedite the activities of fishing vessels.

- 5) Center for marketing and distribution of caught fish.
- 6) Center for implementation of quality development of fishery products.
- 7) Center for implementation of extension and collection of fishery data.
- 8) Center for the implementation of supervision of fish resources.

The Role of Maritime Affairs and Fisheries Service (DKP)

The involvement of state stakeholders in marine governance in the Bali Strait at the regional level includes the Marine and Fishery Services of East Java Province and Bali Province which are responsible for handling fisheries administration at the regional level. This responsibility includes the implementation of fish resource management based on technical guidelines from the Directorate General of Capture Fisheries.

According to the Maritime Affairs and Fisheries Service of Banyuwangi Regency, capture fisheries in the Bali Strait consist of gill nets and payang with the main product being lemuru fish. This capture fisheries business is the dominant basis for around 80% of the fishermen's economy and the surrounding community. This condition will not last long if the capture fisheries business is not managed properly and there is no financial balance.

Good management requires the involvement of the local government, in this case the Maritime Affairs and Fisheries Service of the Province of Bali is the implementing element of the Provincial government which is under and directly responsible to the Governor of Bali regarding government affairs in the Maritime and Fisheries sector which are the authority of the region. The Provincial Maritime Affairs and Fisheries Service (DKP) has marine management authority no. 23 of 2014 concerning regional autonomy, where there was a change in the management authority of the Provincial sea which was originally 4-12 miles now to 0-12 miles, water management that was carried out previously by the Regency/City Government was taken over by the Provincial Government. Whereas previously the sea zoning of 0-4 miles was the authority of the Regency/City Government.

The Provincial Maritime Affairs and Fisheries Service (DKP) has authority in marine management 0-12 miles. The authority of the Provincial DKP to support all activities in the Regency/City which are Provincial affairs through planned activities, such as empowering fishermen, training for fishermen and so on

The main function of the Regency Maritime Affairs and Fisheries Service (DKP) has established a program that has the aim of realizing the welfare of fishing communities. The welfare of fishermen is carried out through empowerment efforts. This program is a program that is used as a form of activity carried out by the government, especially the Maritime Affairs and Fisheries Service which is expected to be able to contribute to increasing regional income.

These regulations can still be used according to developments in the current situation or need to be revised such as a Joint Decree (SKB) agreement between the two Maritime and Fisheries Services of the Province of East Java and the Office of Maritime Affairs and Fisheries of the Province of Bali regarding the management of lemuru fish resources, especially in determining number of purse seine fishing gears in the Bali Strait.

Arrangements for the allocation of fishing gear in the Joint Decree (SKB) No. 238 of 1992/674 of 1992 has fairly regulated the management of fishery potential in the Bali Strait for both Banyuwangi Regency, East Java Province and Jembrana Regency, Bali Province. This SKB contains the number of uses of purse seine fishing gear as many as 273. This composition division consists of 190 for the Province of East Java and 83 for the Province of Bali. In addition, to control fish exploration using purse seine, its use must be limited to 145 with a composition of 100 East Java Province and 45 Bali Province regions. coordinates of fishing operations for each region as well as fishing permits in the Bali Strait.

Increasing the size and specifications of fishing gear can be an additional effort because it is more effective, this additional effort is feared to accelerate the decline in lemuru resources which results in excessive depletion. Therefore, SKB No. 238 of 1992/674 of 1992 needs to be re-evaluated and revised, because it is no longer in accordance with the current conditions in the field. This revision needs to be done to keep up with the conditions and changes in fishermen who look for fish in the sea.

As shown in the table below, fishermen must comply with a joint decision between the two regional governments of East Java Province and Bali Province by not increasing the number of fishing gear units, but increasing the size of the vessel and extending the fishing gear and increasing the number of lights as fishing aids along with the number of crew members.

Table 1. Regulation and Management of the Lemuru Fishery in the Bali Strait

No	Regulation Number	Arrangement	Conditions in the Field
1	Kepmen Pertanian No. 123/ 1975	The minimum width of the mesh is 2 inches	Bali Strait fishermen use $\frac{3}{4}$ inch nets, because if they use 1 inch fish "macok" (gets caught in the net)
2	SKB Gubernur Jatim dan Bali No. N.HK.1/39/77 dan EK/ le/52/77 Tanggal 20 Mei 77	The permitted number of Purse Seine in the Bali Strait is 100 units East Java = 50 units; Bali 50 units (1 unit 2 ships)	Conditions in the field of 189 units exceeded the permitted 100 units
3	SKB Gubernur Jatim dan Bali No. 156/1978 dan EK/146/1978 Tanggal 27 Desember 1978	The number of permitted Purse Seine is 133 units, with details of 73 units in East Java; Balinese 60 units	In Muncar in 1982 reached 224 Purse Seine units
4	SKB Gubernur Jatim dan Bali No. 126/ 1983 dan 136/ 1983 tanggal 4 Agustus 1983	In total, 250 units of Bali Strait Purse Seine were used, with details of 175 units in East Java; Bali 75 units	Purse Seine operating in the Bali Strait is reported to be 351 units
5	SKB Gubernur Jatim dan Bali No. 7/ 1985 dan 4/ 1985 Tanggal 16 Januari 1985	The Purse Seine fleet permitted in the Bali Strait is 273 units, with details of East Java = 190 units; Bali 83 units	Conditions on the ground exceeded what was permitted
6	SKB Gubernur Jatim dan Bali No. 238/ 1992 dan 674/ 1992 Tanggal 14 November 1992	The permitted number of Purse seines is 273 units, with details of East Java 190; Bali 83 units. Vessel < 30 GT. The maximum net length is 300 m and the net width is 60 m. The fishing zoning in the north is for traditional boat fishermen without motors and the south is for boat operations with engines. Fishing vessels must land fish at the port where the district gives permission. Ships must wear identification	Purse seine ships have increased in size and many ships do not use markings (paint) according to regulations. The length of the net is 400 m. Report from Brawijaya University in 1998 Purse seine in Muncar measuring 30-100 GT for 2 ships
7	Keputusan Gubernur Bali No. 392/ 1994	Allocation of 83 Purse Seine Ships for Badung Regency 9 units and Jembrana 74 units	From this allocation, only 12 units extended their permits
8	Perda Jatim No. 10 Tahun 1989	Concerning Fisheries Business Permits	In the Field there are many vessels operating without permits
9	Kep Mentan No. 329/ Kpts/ IK. 120/4/9 Tanggal 5 April 1999	About Line of Arrest	Violation of fishing lines often leads to conflicts

Source: Joint Decree (SKB) of East Java Provincial Office and Bali Provincial Office

The fisheries management policy contained in SKB No. 238 of 1992//674 of 1992 between the Provinces of East Java and the Province of Bali can be signs to ensure this sustainability. However, in order for this to work properly, the related regional governments need to issue more technical derivative policies in the form of regional regulations at the district level whose implementation is continuously monitored.

Management of the Bali Strait involving local governments at both the Provincial and District levels by applying the concept of co-management in the management of existing fisheries resources and components. Co-management has been implemented in the Philippines and has succeeded in building the community's economy. This co-management is also relevant to the minapolitan area program initiated by the Ministry of Maritime Affairs and Fisheries which integrates the roles of all related fisheries components.

CONCLUSIONS

Based on the discussion above, the Joint Decree (SKB) on sea management in the Bali Strait needs to be revised again. This is because the SKB needs to make adjustments to the natural conditions and needs that exist between the two provinces in East Java and Bali Province. The regulations for the management of the lemuru fishery in the Bali Strait which have been agreed upon in the Joint Decree between the two Provinces of East Java and Bali have undergone many changes to the regulations that have been made. The revision of this regulation is a step to accommodate conditions in the field as a form of supervision and control that is still weak. Management of the Bali Strait involving local governments and stakeholders by applying the concept of co-management that integrates the roles of all related fisheries components.

ADVANCED RESEARCH

This research has limitations on the sustainability model of the Joint Decree as an instrument for managing Bali Strait waters which involves many sectors. The SKB is not only seen from the management model but from the sustainability aspect of management. Because of the regularity dimension in the governance of the Bali Strait waters, it is necessary to conduct an in-depth and conference review.

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